Career and Technical Education Return on Investment Analysis

What is career and technical education?
Career and technical education (CTE) offers students the opportunity to develop a strong academic foundation and valuable, real-world technical skills while they are still in high school.

What is a return-on-investment (ROI) analysis for CTE programs?
An ROI analysis by the state helps determine whether investments, such as time or money, are providing desired results. An ROI analysis for CTE programs helps policymakers determine whether CTE programs are preparing learners for inhigh-demand, high-wage, and high-skill careers, whether all learners have access to programs, and whether participants are successful post-graduation.

What does a well-executed analysis require?
A comprehensive ROI analysis requires (at a minimum):

- an inventory of CTE programs available to K-12 and postsecondary learners.
- an evidenced-based vision of what CTE learners can expect to gain from each program,
- a robust statewide data system to capture student enrollment in CTE programs, graduation rates from these programs and rates of student attainment of industry-valued credentials.

How do ROI analyses improve state policies?
Based on findings from ROI analyses, states can provide additional resources to career technical programs that lead to higher-wage careers. For example, performance funding rewards programs with additional funding when students complete high-value industry credentials and get higher-wage jobs that can drive further growth.

What if states don’t have all the data they need?
States should coordinate across such agencies as their Departments of Education, Economic Development, and Labor, as well as local education agencies, to begin gathering and sharing available data and move toward a more comprehensive analysis over several years. An initial report of CTE program offerings by school and college can serve as a foundation on which a state builds.

What else do states need to know?
To maximize the benefits of ROI analyses, states should consider adopting a schedule for recurring analyses, and policymakers should be willing to act on the data from those analyses as resources allow.
Spotlight on Colorado

House Bill 1226 of 2018 directs the Colorado Department of Higher Education to generate an annual report on undergraduate degree and certificate programs offered at each state institution of higher education. This report collects a variety of data, including information on earnings, average student loan debt, and average time to completion by program. This report is supplemented by the annual Talent Pipeline Report which analyzes key features of the labor force and outlines strategies to balance workforce supply and industry demand.

Spotlight on Florida

In Executive Order 19-31, which has since been codified, Governor Ron DeSantis directed the education commissioner to perform an annual audit of CTE offerings in the state, which must include (1) an analysis of alignment with certificate or degree programs offered at the K–12 and postsecondary levels; (2) an analysis of alignment with professional-level industry certifications; (3) an analysis of alignment with high-growth, high-demand and high-wage employment opportunities; and (4) a review of learner outcomes such as academic achievement, college readiness, postsecondary enrollment, and attainment of industry certifications and credentials.

Spotlight on Mississippi

House Bill 1388 of 2022 requires the Mississippi Office of Workforce Development to conduct a program inventory and ROI analysis on workforce programs and CTE programs in K-12 and in the community college system. Conducted with assistance from the Mississippi Department of Education and the Mississippi Community College Board, results will be used in conjunction with labor market analyses to adjust program offerings to best meet future needs of Mississippi businesses and provide high-demand, high-skill, and high-wage pathways.

Where can I find additional resources?

To read more: ExcelinEd, Pathways Matter Policy Framework.  
A model policy: ExcelinEd, ROI Analysis.

Contact

Nathan Oakley  
Senior Policy Director; Pathways  
nathano@excelined.org