Investment in Career Technical Education: Linkages to Greater Earnings, Higher Employability, and Positive Benefit-Cost Ratio

National Association of State Directors of Career Technical Education Consortium (NASDCTEc)

Reflect, Transform, Lead:

A New Vision for Career Technical Education

Our vision's core principles are:

- CTE is critical to ensuring that the United State leads in global competitiveness.
- CTE actively partners with employers to design and provide high-quality dynamic programs.
- CTE prepares students to suceed in further education and careers.
- CTE us delivered through a comprehensive programs of study aligned to The National Career Clusters framework.
- CTE is a results-driven system that demonstrates a positive return on investment.

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The nation's education system serves individuals of all ages and from all walks of life, but even education is not exempt from the impacts of our current economic crisis. Today, policy makers are being cornered into making tough choices. They must direct scarce funds toward education programs that produce maximum results, and reduce or even eliminate funds for programs that do not measure up. That pressure to demonstrate value certainly falls on Career Technical Education (CTE) programs. CTE must be reframed to shore up the economy by providing rigorous job training and secondary and postsecondary preparation that meet the needs of the labor market. Else, programs that cannot prove their value to their communities and country are unlikely to survive the stiff competition for funding.

The use of accountability and data-driven decision making to support continuous improvement and effective implementation of CTE is a tenet of the National Association of State Directors of Career Technical Education Consortium's (NASDCTEc) vision for CTE.[i] States and local CTE programs must enable themselves to showcase positive CTE results. Further, they must demonstrate the positive impact of CTE through return on investment (ROI) measured by fiscal returns or savings for government and employers, favorable societal impact, career benefits for individuals and a positive impact on regional, state or national economies.

At its most basic level, ROI measures how much academic achievement a program, school, district, or state achieves for each dollar that is spent on CTE.[ii] However, calculating an accurate ROI, and accounting for costs related to low-income, non-English speaking, and special education populations, is a sophisticated process. For example, the National Research Center for Career and Technical Education (NRCCTE) recently commissioned a study to address that intimidating issue.[iii] As writer of the report, Kevin Hollenbeck explained, "It answers the question of how the program has changed the lives of individuals who participated in it relative to their next best alternative." Through complex analysis, the study provided these outcomes that illustrate how secondary CTE programs in Washington boost students' skills, productivity, likelihood of

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gainful employment and contributions to the local economy.[iv] The following outcomes resulted from the NRCCTE study and provide compelling reasons to support CTE in Washington:

After graduating from a high school CTE program, graduates earn 38 more cents per hour, an average of $141 more per quarter, and are 4.1 percent more employable

Postsecondary CTE graduates can expect a 9.2 percent increase in employability short-term and a 6.7 percent longer-term increase

Secondary CTE students will see a longer-term net impact of $284 dollars per quarter and postsecondary CTE students will experience a longer-term net impact of over $1,000 per quarter

The public also benefits from CTE in Washington – the benefits of educating postsecondary CTE students are estimated to be more than double the cost to the public

The long-term benefits of education secondary CTE students are even more substantial with a benefits-cost ratio of 8 to 1

That being said, measuring improved quality of life can be done using a range of barometers and qualifiers. But diminishing resources and unavailability of longitudinal data – which would ideally follow students from K-12 education through postsecondary education and the workforce - limit many states and CTE programs from carrying out the complex analysis required to calculate ROI. Therefore, this paper aims to frame the conversation so states can begin looking at cost-saving differently. To be clear, we are not suggesting that states can achieve accurate ROI results without performing a complex analysis. However, we aim to identify programs, states and organizations that use their data effectively to show how their CTE students are succeeding and how this may be beneficial to their communities and the economy.

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The Alliance for Excellent Education (AEE), a nonprofit organization, used a different economic model to calculate the economic impact of a high school diploma nationally and in each of the states. Through their analysis, the Alliance was able to connect investments in education to the benefits enjoyed by society which include: boosting individual earnings, home and auto sales, job and economic growth, spending and investment, and tax revenue in the state.[v]

AEE's analysis gave a scenario of what would happen if the number of each state's high school dropouts was cut in half. The results showed the potential impact of the graduates on the economy including:

- $7.6 billion increase in earnings,
- $5.6 billion increase in spending,
- $19 billion increase in home sales,
- $741 million increase in auto sales

This work shows how a decrease in the number of high school dropouts would impact well beyond the individual, and provides a persuasive case for secondary education funding. The Alliance also produced similar statistics for each state.

The Center for American Progress (CAP), a progressive Washington, D.C.-based think tank, produced a report earlier this year to gauge the ROI for districts across the country.[vi] CAP examines "educational productivity," another way of looking at the rate of student achievement based on the fiscal output of the system. A district spending relatively little but producing high student achievement has high educational productivity.

CAP's data is displayed on an interactive website that allows for district-by-district comparisons on spending and academic achievement.[vii] Data is available for most major school districts in the country, allowing users to view how a district compares to another district with similar characteristics. For example, CAP reports that "the Wisconsin school systems of Oshkosh and Eau Claire are about the same size and serve similar student populations. They also get largely similar results on state exams – but Eau Claire spends an extra $8 million to run its school system." This type of comparison would benefit CTE schools that create stronger outputs than other local schools or schools with similar characteristics.

The Alliance and CAP analyses show the value of education more broadly, but CTE can provide many benefits to the local, state and federal economy as well by effectively educating and preparing students for further education and careers. Demonstrating short-term and long-term cost savings is one of the most beneficial ways a state can illustrate the benefits of its CTE programs on individuals, communities, and the economy.

Arkansas and Minnesota have also investigated the cost-saving potential of education programs for each state and released these statistics that succinctly describe the rate of return for education[viii]:

Arkansas:

High school graduates or GED recipients earn an average of $8,860 more per year than non-high school graduates.

$18 million spent with an ROI rate of 43%

Minnesota:

In FY 2004, Minnesota served 81,500 adult learners (38,663 being ESL)

Minnesota spent $41 million in 2004, returning 3 to 5 times the expenditure back to the state in cash and savings

Though determining cost-saving strategies may seem a daunting prospect, the states and organizations shown here have broached the task in creative and useful ways. States, districts and local entities all have the means to show the cost-saving potential of CTE programs to their communities and the nation. Once determined, these approximations can be used to inform decision making, make programmatic changes, and identify areas of improvement. Most of all, demonstrating ways in which CTE provides substantial cost-savings shows that CTE is an investment worth making.

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