WHAT WE KNOW ABOUT THE IMPACT OF CAREER AND TECHNICAL EDUCATION



Career and technical education (CTE) prepares students with academic, technical, and employability skills for education and career success.

In 2021–22, more than 8 million secondary students and 3.4 million post secondary students participated in CTE, supported by federal funding through the 2018 Strengthening Career and Technical Education for the 21st Century Act (Perkins V).

In 2024 the CTE Research Network published a systematic review of the research literature spanning the past 20 years to identify how CTE benefits high school students.

A Systematic Review of the Research¹

No statistically significant negative impacts of CTE were found.

CTE has statistically significant positive impacts on students'



High School completion



Compared to similar students who do not take CTE, those who do are more likely to enroll in 2-year college and are equally likely to enroll in 4-year college and to make progress in college.

In addition to this systematic review, Network teams have conducted Causal research to understand the impacts of CTE.

The Effects of Career and Technical Education: Evidence from the **Connecticut Technical High** School System² (CTHSS)



Male students attending CTHSS technical high schools were 10 percentage points more likely to graduate than the comparison group.

- Male CTHSS students had \$ significantly higher earnings at age 23 than the comparison group.
- Female students performed at similar rates to the comparison group.

See reverse for citations.

Institute of

ducation Sciences



The P-TECH group was more likely than the comparison group to participate in internships during high school, dual enroll in a college-level course, and earn a degree after 3 years of postsecondary education.

Seven years after entering high school, 13 percent of young men in the P-TECH group had earned an associate degree, compared with 3 percent in the comparison group.



Young women earned degrees at similar rates to the comparison group.

The Evaluation of Career and College Promise⁴



CTE dual enrollment students were 7 percentage points more likely to earn a postsecondary credential by 6 years after high school, with the largest impacts for male students and economically disadvantaged students.



Read the systematic review and learn more about Network research, events, and trainings for researchers and practitioners at cteresearchnetwork.org



Career & Technical Education RESEARCH NETWORK

The CTE Research Network brings together Institute of Education Sciences-funded research teams focused on measuring the impact of CTE programs on student outcomes. The American Institutes for Research (AIR) and its partners—the Association for Career and Technical Education (ACTE), Boston College, and JFF—serve as the CTE Research Network Lead, providing network administration and coordination as well as research, training, and dissemination to increase the number and quality of CTE impact evaluations and strengthen the field's research capacity.

The work of the CTE Research Network Lead is supported by the Institute of Education Sciences at the U.S. Department of Education with funds provided under the Carl D. Perkins Career and Technical Education Act through Grant R305N180005 to the American Institutes for Research (AIR). The work of the Network member projects is supported by the Institute. The opinions expressed are those of the authors and do not represent the views of the Institute or the U.S. Department of Education.

The Association for Career and Technical Education (ACTE) is the nation's largest education association dedicated to the advancement of education that prepares youth and adults for successful careers. For more information, visit www.acteonline.org.

- 1. Lindsay, J., Hughes, K., Dougherty, S. M., Reese, K., & Joshi, M. (2024). What we know about the impact of career and technical education: A systematic review of the research. American Institutes for Research, Career and Technical Education Research Network.
- 2. Brunner, E. J., Dougherty, S. M., & Ross, S. L. (2023). The effects of career and technical education: Evidence from the Connecticut Technical High School System. *Review of Economics and Statistics*, 105(4), 867–882.
- 3. Rosen, R., Alterman, E., Treskon, L., Parise, L., Dixon, M., & Wuest, C. (2023). P-TECH 9-14 Pathways to Success: Implementation, Impact, and Cost Findings from the New York City P-TECH 9-14 Schools Evaluation. *MDRC*. https://eric.ed.gov/?id=ED632477
- 4. Edmunds, J., Unlu, F., Phillips, B., Hutchins, B., & Mulhern, C. (2022). CTE-focused dual enrollment: Participation and outcomes (EdWorkingPaper 22-692). https://eric.ed.gov/?id=ED625873