

Connecticut Technical High Schools Boost Graduation and Employment Outcomes for Males



How effective are career and technical education (CTE) high schools as pathways for college and career success?

A study of the **Connecticut Technical High School System (CTHSS)** found robust positive effects for male students, including higher graduation rates and post-graduation earnings as well as evidence of improved learning (test scores) and engagement (attendance).

About the study:

- Included **57,000 grade 8 students**¹ who applied to CTHSS in **2006-12**
- Analyzed **students' education and labor market** outcomes through first quarter of **2018**
- Considered **male and female students separately**, based on prior research that suggested **possible differences by sex**

Overview of CTHSS

16 technical high schools at the time of the study



8% of Connecticut high schoolers enrolled in CTHSS schools



31% of CTHSS students are from the state's five poorest central cities

10-17 CTE programs offered at the schools

3+ CTE courses taken by students in their program

8th grade When students apply to CTHSS schools



Key findings

Attending a CTHSS school paid off with large gains for male students² compared to similar students who applied to CTHSS but attended other schools.



Better grade 9 attendance rates



Better grade 10 test scores



Higher high school graduation rates



Higher post-graduation quarterly earnings at age 23 or older

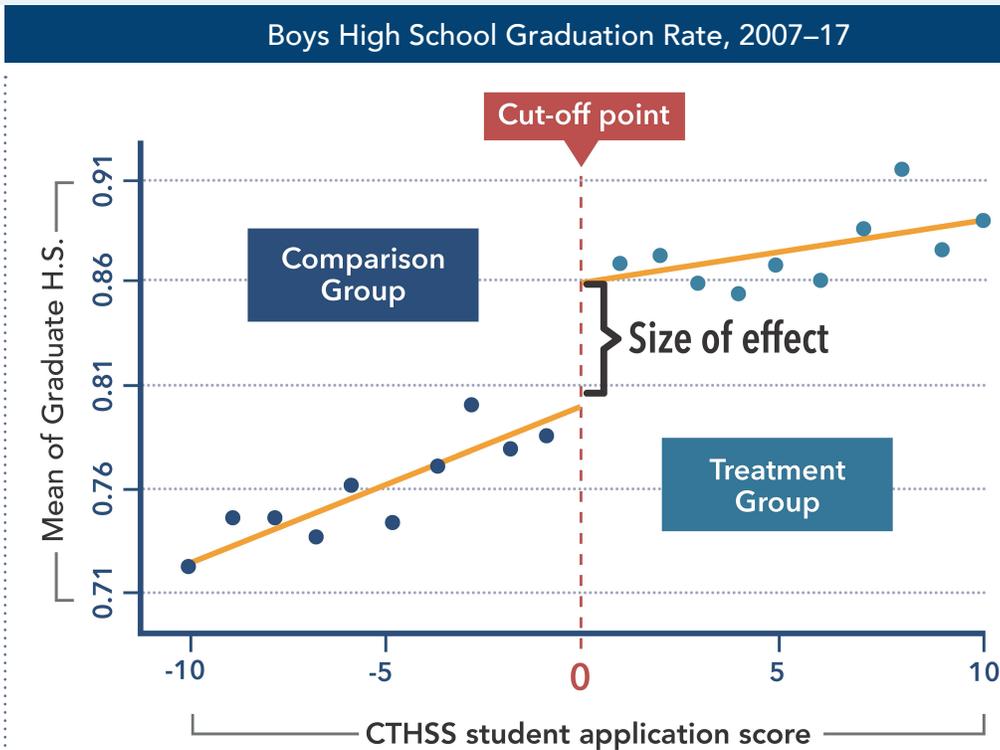
¹ The sample excluded students who applied to CTHSS after grade 8 or who had an Individualized Education Program.

² The study did not find any significant effects for female students.

How do we know that attending a CTHSS technical high school caused these differences in student outcomes?

The study used a **regression discontinuity design**, which evaluates a program's impact by comparing groups **just above** and **just below** a cut-off point for eligibility—in this case, the CTHSS admission score. This design assumes the two groups are similar except for the intervention.

- **Cut-off point**
CTHSS admission cut-off based on student application scores
- **Comparison group**
Students who very likely did not attend a CTHSS school
- **Treatment group**
Students who very likely attended a CTHSS school
- The angled lines estimate local averages for each group. The gap (discontinuity) between the lines at the cutoff indicates the effect size for students at the cutoff.³



Key Takeaways

Read the full report: <https://cteresearchnetwork.org/resources/effects-career-and-technical-education-evidence-connecticut-technical-high-school-system>



Positive effects for CTHSS male students included **10 percentage points higher** high school graduation rates and **32 percent higher** quarterly earnings at age 23.



Most of the positive effects for male CTHSS students are due to the benefits of a **stand-alone technical high school experience**.



Although male CTHSS graduates were **less likely to attend college initially**, there is evidence that these differences **fade by age 23**.



Understanding why male but not female students appear to benefit from attending a CTHSS school is an important avenue of future research.