

# 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**<sup>1</sup> 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

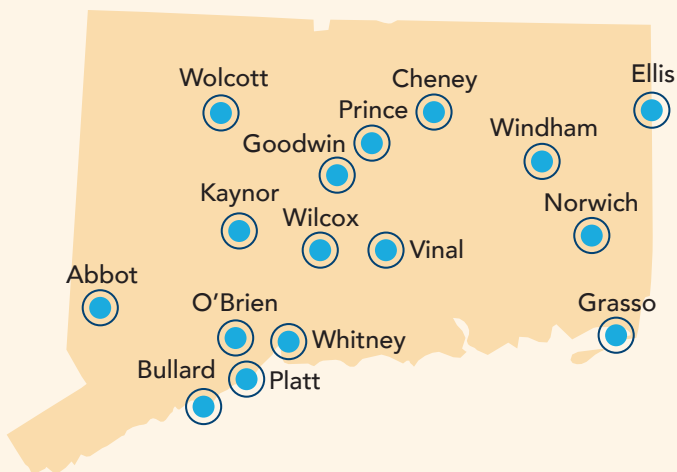


**31%** of CTHSS students are from the state's five poorest central cities

**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 students**<sup>2</sup> 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

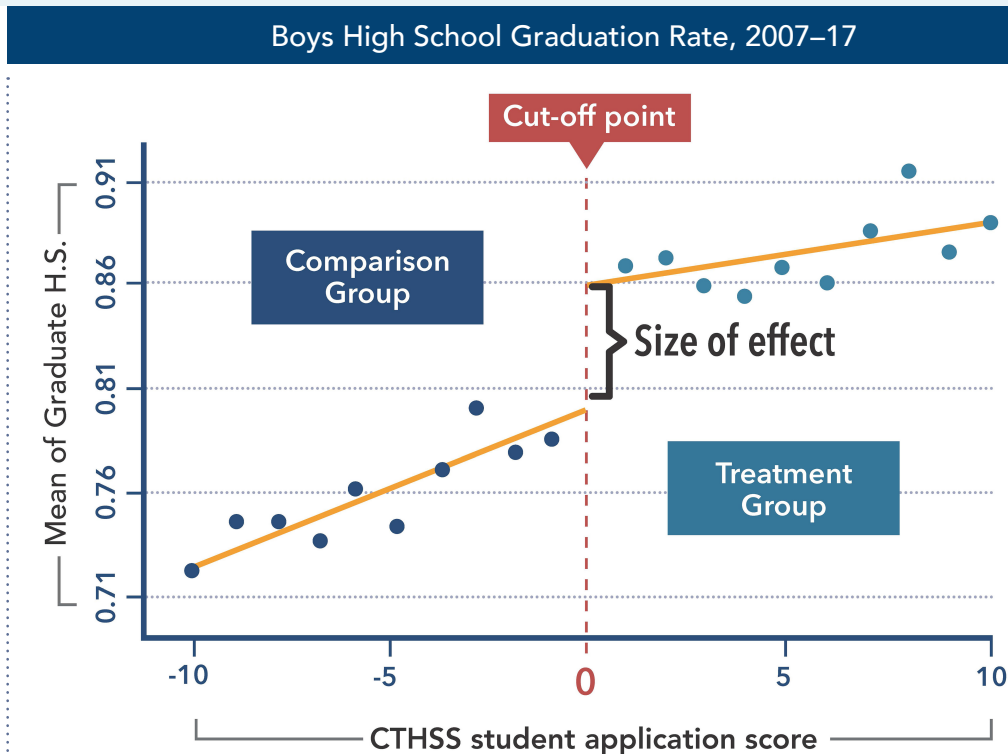
<sup>1</sup> The sample excluded students who applied to CTHSS after grade 8 or who had an Individualized Education Program.

<sup>2</sup> 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.<sup>3</sup>



## 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.