

# Identifying Career and Technical Education Programs Ready for Rigorous Evaluation



Little is known about the causal effects of career and technical education (CTE) on students' outcomes. To encourage new CTE impact studies, the CTE Research Network conducted an evaluability assessment (or feasibility study) that identified four CTE programs or models ready for rigorous evaluation.

## Evaluation Process

The network lead team conducted the study with support from the broader field. In addition, individual CTE program sites provided details about key program components, such as structure, enrollment process, student experiences, teacher professional development, and postsecondary and industry relationships.

## Our Step-by-Step Process



1. Call for program nominations from the field: **112 programs**
2. Baseline criteria for inclusion (serves 100+ students per year; 2+ years old): **74 programs**
3. Data collection and analysis of program components, structure, and student admission process: **53 programs**
4. Program interviews and analysis, including program leadership's willingness to participate in research: **25 programs**
5. Final interviews and analysis, in lieu of site visits disrupted by COVID-19, produced **4 programs ready for causal research**

## Benefits of Evaluating CTE Programs

### Researchers

- Increase the evidence base about the impact of CTE program participation on student experiences and outcomes

### Program administrators

- Learn which CTE programs are impactful, and potentially direct more resources to them

### Policymakers

- Make informed decisions to implement CTE models and practices that result in positive postsecondary and workforce outcomes

### Society

- Use data to build a skilled and educated U.S. workforce and society

## Diversity of CTE Programs That Participated in the Study

The CTE programs and models evaluated varied considerably based on location, components, and career clusters. Of the 112 nominated programs, most served high school students, offered multiple career clusters and pathways, and involved activities in multiple settings. Seven operated in multiple states. [Learn more](#)



### Location

Nominations were received for programs operating in **48 states**, **Washington D.C.**, and **Guam**. Of those, 7 programs operated in multiple states; the rest each operated within one state.

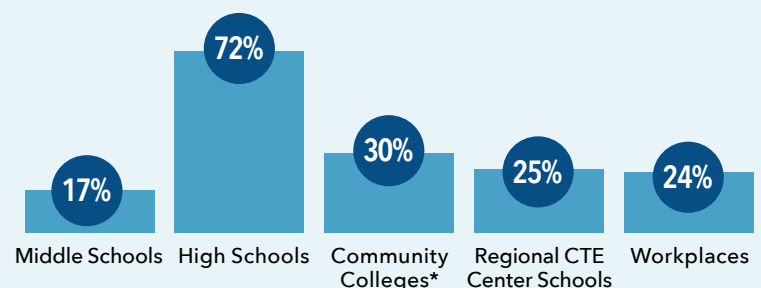


### Career clusters

42 CTE programs were in **STEM** and **Health Science** career clusters.

## Program Settings

Some programs operated in more than one setting. [Learn more](#)



\* Only 14% of programs reported serving students in primarily postsecondary settings.

## Four Promising Sites for Causal Research

**Delaware Pathways** <http://delawarepathways.org/>

**36** high schools      **6** regional centers      **16,000** students

Delaware Pathways is a CTE model offered statewide. The program offers 24 career pathways designed at the state level, including course sequences, instructional frameworks, competency profiles, teacher training, and strategic industry and postsecondary partnerships.

**NAF** <https://naf.org/>

**406** high schools      **620** NAF academies      **112,000** students      **34** states\*

NAF academies are small learning communities within schools. Each academy focuses on a career theme such as finance, hospitality and tourism, or information technology. Students stay in the academies for multiple years. Work-based learning is an important part of the program.

\* 34 states plus Washington D.C., Puerto Rico, and the U.S. Virgin Islands



**Franklin Technology Center at Joplin School District**  
<https://ftc.joplinschools.org/>

**1** center      **4** school districts      **700** students

Based in Joplin School District in Missouri, the Franklin Technology Center serves students across four districts. The center offers 14 CTE pathways in 13 career clusters that are centered on competency-based completion. All pathways have embedded academic credits, offer employability skills training, and use the SkillsUSA curriculum. More than half of the pathways offer dual credit opportunities with two local community colleges.

**Virtual Enterprises International**  
<https://veinternational.org/>

**430** high schools      **40** career centers/  
CTE centers      **15,000** students      **17** states\*

Virtual Enterprises is an in-school, live global business simulation with an accompanying curriculum. The year-long course tends to be part of a business pathway, but it can also serve as a capstone course in other CTE clusters, like engineering or computer science.

\* 17 states plus Washington, D.C.

*Program information verified as of 2019 and may fluctuate annually.*

## Can my CTE program be evaluated?



Is the program likely to show measurable, positive impacts on the participants?



Is there a meaningful way to contrast the treatment group (those in the program) and the control group?



Is there a sufficient number of participants for statistical analysis?



Are data available to track intended outcomes for both participants and nonparticipants?



Is there the potential for a research design that examines causal effects on student outcomes?

[Learn more](#)

Read the full report: <https://cteresearchnetwork.org/resources/evaluability-assessment-final-report>