

### Citation

Kemple, J., & Snipes, J. (2000). Career Academies: Impacts on students' engagement and performance in high school. New York: MDRC.

### Highlights

- The report's objective was to evaluate the impact of Career Academies on students' engagement and performance in high school three to four years after enrollment in a Career Academy. Later reports present impacts on transitions to post-secondary education measured 14 months after scheduled graduation and employment and earnings four and eight years after scheduled graduation.
- For this evaluation, about 2,000 9th-grade students who applied to participate in a Career Academy were randomly assigned to the treatment group and admitted into a Career Academy, or the control group, which continued to participate in general education. Data sources for this report include school transcript records, student surveys, and standardized math and reading tests.
- This study reported a statistically significant, positive impact on the number of vocational classes taken and credits completed to graduate, but no impacts on standardized test scores, dropout rates, or the proportion of students who applied to college or for a job.
- The quality of the causal evidence presented in this report is high because it was a well-implemented randomized controlled trial. This means we are confident that the estimated impacts are attributable solely to Career Academies, not other factors.

### Features of Career Academies

Career Academies were first established some 45 years ago and have become a widely used high school reform initiative. They are designed to keep students engaged in school and improve their employment and educational outcomes. Students apply for admission into Career Academies during 8th or 9th grades (depending on the rules of the program to which they are applying).

Career Academies have three distinguishing features, and the study authors pointed out that a true Career Academy must exhibit all three:

1. They are organized as small learning communities, or schools within schools. They typically serve 150 to 200 students from grades 9 or 10 through grade 12. This smaller size fosters a more personalized learning environment.
2. The curriculum is organized around one career, occupation, or industry and combines academic and technical aspects relevant to the career.
3. The academies offer work-based learning experiences, often through partnerships with local employers. These can include summer employment, internships, and mentoring.

## Features of the Study

The study was a randomized controlled trial conducted in nine high schools located in or near large urban school districts. Districts served a substantially higher percentage of African American and Hispanic students and a higher percentage of low-income families compared with school districts nationally. They also had higher rates of high school dropout and unemployment.

All study participants applied for admission into one of the Career Academies. Because there were more applicants than the programs could serve, a lottery system was used to assign approximately 2,000 applicants to Career Academies. Approximately 55 percent of the applicants were randomly assigned to a Career Academy and formed the treatment group; the rest of the applicants enrolled in general education and formed the control group. The study examined aspects of the students' engagement in high school during the three to four years following random assignment, as well as their preparation for post-secondary education and employment.

## Study Sites

- Baltimore, Maryland
- Miami-Dade, Florida
- Pittsburgh, Pennsylvania
- San Jose, California (two sites)
- Santa Ana, California
- Socorro, Texas
- Watsonville, California
- Washington, D.C.

## Findings

- Across the full study sample, Career Academy students were 23 percentage points more likely to complete three or more career or vocational courses (67 versus 44 percent) and 6 percentage points more likely to complete the credits required to graduate (65 versus 59 percent) than students in the control group, although there was no difference between the groups in completing core academic course requirements.
- There were no statistically significant differences between Career Academy and control group students on most other outcomes examined, including the dropout rate, standardized math and reading test scores, and the proportion who applied to college or for a job.

- For the subgroup of students identified as being at a high risk of dropping out at the time of random assignment, the authors found statistically significant impacts of Career Academies on three of four measures of credit accumulation and two of five measures of course-taking, but no differences in reading or math achievement. In addition, high-risk Academy students were less likely to drop out of high school (21 versus 32 percent) than control group students, and a higher proportion applied to college (51 versus 35 percent).

### **Considerations for Interpreting the Findings**

The study was a well-conducted randomized controlled trial. The authors estimated multiple related impacts on academic progression and performance; performing multiple statistical tests on related outcomes makes it more likely that some impacts will be found statistically significant purely by chance and not because they reflect program effectiveness. Because precise  $p$ -values and standard errors were not provided in the report, CLEAR could not confirm whether the statistically significant impacts remained so after adjusting for multiple comparisons.

### **Causal Evidence Rating**

The quality of causal evidence presented in this report is high because it is based on a well-conducted randomized controlled trial. This means we are confident that the effects estimated in the study are attributable solely to Career Academies, not to other factors.