High-Quality Schools and Achievement Among the Poor in the United States

Researchers:

Will Dobbie

Roland Fryer

Sector(s): Education, Labor Markets

Location: New York City, United States of America

Sample: 347 kindergarten students and 495 middle school students

Target group: Students

Outcome of interest: Student learning

Intervention type: School choice School-based inputs

AEA RCT registration number: AEARCTR-0001984

Data: Download dataset (78 KB)

Partner organization(s): Broad Foundation, Education Innovation Laboratory, Harlem Children's Zone

In the United States, in every subject at every grade level, there are large performance differences between blacks and whites that continue to grow as children progress through school. Researchers measured the effect of a high-quality charter school, which predominantly serves disadvantaged children of color, on academic achievement. Enrollment at the Promise Academy schools in the Harlem Children's Zone substantially improves students' test scores.

Policy issue

In the United States, there exists a racial achievement gap in education outcomes. Achievement differences between blacks and whites can be measured at a young age and these differences continue to grow as children progress through school. The typical black 17-year-old reads at the proficiency level of the typical white 13-year-old. There have been many attempts to close this achievement gap including early childhood interventions and busing programs which place disadvantaged students in better schools. However, long-term success of most programs has been modest. There is an unresolved debate about whether strong schools alone can reduce the achievement gap, or if poverty reforms and community programs are necessary to increase performance of disadvantaged students.

Context of the evaluation

Harlem Children's Zone (HCZ) is a non-profit organization, founded in 1997, which offers comprehensive services to a 97-block area in Harlem, a neighborhood in New York City. Within the 24 blocks that mark the original boundaries of HCZ's services, 72.8 percent of youth are black, compared to 31.6 percent in all of New York City. Students from this area score 0.30 standard deviations and 0.24 standard deviations below the typical New York City student in fifth grade math and English Language Arts, respectively.

HCZ offers community programs—including early childhood programs, health initiatives, and college guidance—which are intended to help children at every stage from birth to college. HCZ also includes the Promise Academy charter schools, started as

elementary and middle schools, but intended to eventually become full K-12 schools. These schools, which include approximately 1,300 students, have an extended school day and year, with after-school tutoring and Saturday classes for those behind grade level. There is a focus on keeping the quality of teachers very high and the schools provide health services, food, and bus fare to students.



Researchers measured the effect of a high-quality charter school in Harlem, New York, on academic achievement. Photo: Shutterstock.com

Details of the intervention

Researchers evaluated the impact of the Promise Academy on the academic outcomes of poor students. When the number of applicants exceeds the number of available slots for admission, the Promise Academy selects students by lottery. Researchers were able to exploit this randomization to estimate the effects of being offered admission into the Promise Academy by comparing the outcomes of lottery winners and lottery losers. Researchers used a combination of HCZ lottery files and New York City Department of Education administrative data. The Department of Education data contained test scores and detailed demographic data for students from 2003 to 2010.

Results and policy lessons

The Promise Academy middle school was successful at boosting student achievement in math. Lottery winners scored 0.28 standard deviations higher on math tests than lottery losers. Not all lottery winners actually attended in Promise Academy, but the majority (69.9 percent of middle school lottery winners and 59.9 percent of elementary school lottery winners) enrolled for at least a year. Students who attended the Promise Academy saw an increase of 0.23 standard deviations in math test scores per

year. If these results were to continue, it would close the black-white achievement gap in mathematics by ninth grade. Attending the Promise Academy middle school did not have a significant impact on English Language Arts scores.

Researchers estimated that attending the Promise Academy elementary school increased test scores in math and English Language Arts. The randomized evaluation was not able to detect these effects, but this may be attributed to a small sample. Researchers used non-randomized statistical methods to compare students who started school in the years before and after the Promise Academy opened and students who lived inside and outside of the HCZ, while controlling for a number of other variables. By these estimates, a year of enrollment in the Promise Academy elementary school increased math scores by 0.32 standard deviations and English Language Arts scores by 0.42 standard deviations.

Non-randomized evidence suggests that Promise Academy student performance was driven by the schools themselves, rather than the HCZ community programs. First, the Promise Academy had similar positive effects on students that lived inside the HCZ and those that lived outside. Second, siblings of Promise Academy students did not experience gains in test scores even though their families had increased access to community programs. Finding ways to transport the gains of the Promise Academy to traditional public schools could narrow the racial achievement gap in U.S. public schools.

Dobbie, Will and Roland G. Fryer, Jr. 2011. “Are High-Quality Schools Enough to Increase Achievement Among the Poor? Evidence form the Harlem Chidren’s Zone.” American Economic Journal: Applied Economics 3(3): 158-187.