

FAQs

Does school choice have a positive academic impact on participating students?

Yes. Studies conducted since the late 1990s convincingly show that school choice is an effective intervention and public policy for boosting student achievement and graduation rates.

Nine studies using a method called random assignment, the gold standard in the social sciences, have found statistically significant gains in academic achievement from school vouchers, one study found improved graduation rates. No such study has ever found negative effects. One study's findings were inconclusive.

Random-assignment methods allow researchers to isolate the effects of vouchers from other student characteristics. Students who applied for vouchers were entered into random lotteries to determine who would receive the voucher and who would remain in public schools; this allowed researchers to track very similar "treatment" and "control" groups, just like in medical trials.

Highly respected random-assignment research has been conducted in five large cities: Milwaukee, Charlotte, Washington, D.C., New York City, and Dayton.

Myth: Private Schools Aren't Really Better Than Public Schools

In education debates, it is often claimed that private schools do not really deliver a better education than public schools. While it is widely known that students in private schools demonstrate better academic achievement than those in public schools (they have higher test scores, higher graduation rates, higher college attendance rates and so forth), these results are often attributed to other factors.

Probably the most common approach is to point to the demographic difference between public and private schools. Students in private schools tend to come from more advantaged backgrounds; many people claim that this is the only reason they have higher academic achievement. Another problem for comparing public and private schools is "selection

bias." Students in private schools are there because their families chose to make a financial sacrifice to put them there, so their parents presumably place a higher value on education—which may in itself explain the students' higher test scores. In addition, private schools may be selective in admitting students.

Facts: Choice and Competition Improve Academic Achievement and Graduation Rates

These challenges are not insurmountable. Empirical studies that use good scientific methods allow us to draw a fair comparison between public and private schools, weeding out the influence of demographics and selection bias in order to isolate the impact of school quality on student outcomes.

The gold standard for empirical science is the method known as "random assignment," the method used for

medical trials. Subjects are randomly divided into a group that will receive the treatment being studied (such as a medicine) and a control group. Because the two groups are separated only by a random lottery, they are likely to be very similar in every respect other than the treatment. Thus, if the two groups have different outcomes, we can be confident that the difference is due to the treatment.

Random assignment studies are very rare in social policy. However, when voucher programs are oversubscribed, a random lottery often is used to determine which students will be offered vouchers. Applicants who are offered vouchers as a result of the lottery are a naturally occurring random-assignment treatment group, and applicants who are not offered vouchers are the control group. Both groups are made up of students whose parents applied to participate in the program; they are separated only by the result of the lottery.

Evidence: Gold Standard Studies Find Vouchers Benefit Learning and Attainment

Ten analyses of school voucher programs have used random-assignment methods.¹ In all ten studies, the voucher group had better academic outcomes than the control group. In nine of the studies, these positive results achieved a high level of statistical certainty (commonly referred to as

“statistical significance”), meaning we can be very confident that the better results in the voucher group were due to vouchers and not a statistical fluke.

In some studies, the positive results for vouchers achieved statistical certainty only among large student subgroups, rather than in the population as a whole. For example, in some cases the positive results for voucher students are only statistically certain for black students, who made up the majority of voucher users in those

programs. These studies do not find any negative voucher effects on any student groups, and they find statistically certain voucher benefits for most students.

Just one study produced no statistically certain results. Other researchers have identified a number of serious violations of proper scientific methods in the study.² If these flaws were corrected, the study would have achieved statistical certainty.

RANDOM ASSIGNMENT STUDIES FINDING VOUCHERS IMPROVED STUDENT ACHIEVEMENT

Statistically certain across all students	Statistically certain for subgroups	Not statistically certain
4	5	1

RANDOM ASSIGNMENT VOUCHER STUDIES

Authors	City	Report Year	Duration	Voucher Benefit?
Wolf, et. al.	Washington, D.C.	2010	4 years	All Students-Graduation Rates Subgroups-Reading
Cowen	Charlotte	2007	1 year	All Students-Reading & Math
Krueger & Zhu	New York	2004	N/A	Statistically Certain Result-N/A
Barnard, et. al.	New York	2003	1 year	Subgroups-Math
Howell & Peterson	New York	2002	3 years	Subgroups-Reading & Math
Howell & Peterson	Washington, D.C.	2002	2 years	All Students-Reading & Math
Howell & Peterson	Dayton	2002	2 years	Subgroups-Reading & Math
Greene	Charlotte	2001	1 year	All Students-Reading & Math
Greene, Peterson & Du	Milwaukee	1998	4 years	All Students-Reading & Math
Rouse	Milwaukee	1998	4 years	All Students-Math

¹Jay Greene, Paul Peterson and Jiangtao Du, “School Choice in Milwaukee: A Randomized Experiment,” in *Learning from School Choice*, eds. Paul Peterson and Bryan Hassel, Brookings Institution, 1998; Cecilia Rouse, “Private School Vouchers and Student Achievement,” *Quarterly Journal of Economics*, May 1998; Jay Greene, “Vouchers in Charlotte,” *Education Next*, Summer 2001; William Howell and Paul Peterson, *The Education Gap*, Brookings Institution, 2002 (revised 2006); John Barnard, Constantine Frangakis, Jennifer Hill and Donald Rubin, “Principal Stratification Approach to Broken Randomized Experiments: A Case Study of School Choice Vouchers in New York City,” *Journal of the American Statistical Association*, June 2003; Alan Krueger and Pei Zhu, “Another Look at the New York City School Voucher Experiment,” *American Behavioral Scientist*, January 2004; Joshua Cowen, “School Choice as a Latent Variable: Estimating the ‘Complier Average Causal Effect’ of Vouchers in Charlotte,” *Policy Studies Journal*, November 2007; and Patrick Wolf, Babette Gutmann, Michael Puma, Brian Kisida, Lou Rizzo, and Nada Eissa, “Evaluation of the DC Opportunity Scholarship Program: Impacts After Four Years,” U.S. Department of Education, June 2010.

²The authors invented an idiosyncratic method for classifying students by race, then arbitrarily applied that definition to black students but not to other students. They also added to the data set new students for whom information was missing, reducing the quality of the study’s data. When data for a given factor are missing for all students (as in the Charlotte studies), researchers simply have to go without it. But it makes no sense to add students with missing data to the sample where we already have plenty of students for whom those data are present. And they were highly selective in their choice of statistical models; they had to use just the “right” model to prevent the positive results for vouchers from being statistically significant. See Caroline Hoxby, “School Choice and School Competition: Evidence from the United States,” *Swedish Economic Policy Review*, 2003; and Paul Peterson and William Howell, “Voucher Research Controversy,” *Education Next*, Spring 2004.