

# What Does the Research Show on School Choice?

By Greg Forster | April 2019

## Executive Summary

One of the most important and hotly contested questions about school choice—policies that allow parents to select any school, public or private, for their children to attend using their public education funding—is what the empirical research shows its effects are. This policy brief builds upon the author’s previous work reviewing the empirical literature on the effects of school choice on academic outcomes (for participants and public schools), fiscal effects, and concerns about segregation and civics. It finds a strong consensus in the research in favor of positive effects from school choice in all these areas.

(see Figure 1)

## I. Myths v. Facts on School Choice

Almost from the very beginning of the modern school choice movement in 1990, with the creation of a school voucher program in Milwaukee, proponents and opponents of private-school choice have made competing claims about what the research shows its effects to be. Proponents have asserted that the research favors school choice, while opponents have consistently claimed that the research is “mixed” or else negative.

The actual research—which is publicly available, and can be looked up by anyone who wishes to see it—favors choice. Of course, sometimes choice proponents have claimed too much, going beyond what the research shows. And, in one sense,

claims that the research is “mixed” are always at least trivially true; the findings of all studies are not identical. Even if one study finds a small positive effect while another study finds a large positive effect, the studies are “mixed” with regard to the size of the benefits. However, on the question that counts most—do school choice policies produce positive effects?—the answer is consistently “yes.”

Oklahoma recently encountered a clear example of this, with the distribution this spring of a press release authored by two academics. Titled “Privatizing K-12 Public Education,” the press release made sweeping claims about alleged negative findings in the empirical research on various forms of school choice. These claims were either misleading (it made a big deal of saying no “independent” studies of a voucher program in Washington, D.C. had found positive outcomes; apparently the huge, top-quality federal study finding positive outcomes was arbitrarily deemed to be non-“independent,” so no mention was made of it) or outright false (it claimed “privatized schools tend to segregate children,” whereas we will see below that no empirical study has ever shown this, while many show the opposite).[1]

Over the years, I have conducted a series of systematic literature reviews (published by EdChoice, where I serve as a Friedman fellow) examining the empirical research on school choice. The reviews are entitled “A Win-Win Solution,” reflecting the fact that the research finds school choice has positive effects not only for participants, but for public schools, taxpayers, and the civic community as well. The most recent of these reviews was published in 2016. [2] In that review I adopted my most rigorous method yet for uncovering all available studies, conducting methodical searches of academic databases.

Figure 1: Empirical Studies on School Choice

	Any Positive Effect	No Visible Effect	Any Negative Effect
Academic Outcomes of Choice Participants	14	2	3
Academic Outcomes of Public Schools	32	1	1
Fiscal Effects on Taxpayers	41	3	1
Ethnic Segregation in Schools	9	1	0
Civic Values and Practices	8	3	0

Note: Shows the number of empirical studies with each type of finding. The first row includes all studies using random-assignment methods. Other rows include all studies using all types of methods.

While I have not conducted that kind of systematic review since that publication, in this policy brief I have used my 2016 review as a starting point and then added such studies as I have become aware of since then. I have retained the other methods I adopted in the 2016 review, including (for example) the rules I used for judging when two analyses constituted two separate studies, as opposed to one study that reports two findings. Readers interested in these methodological issues should consult that publication.

## II. The Research on Academic Effects

Academic effects may be the most important empirical question we ask about school choice. At one time, it was by far the most hotly debated, whereas today it is much

less frequently mentioned by opponents of choice. Having been in the school choice movement since 2002, I can remember when we constantly heard claims that “there’s no evidence school choice actually helps kids learn” or “the research on outcomes is mixed.” Such claims were a primary focus in the 2005 book *Education Myths*, which I co-wrote.[3] We almost never hear that kind of thing now, because the research on academic outcomes is so consistently positive.

Most of these studies examine test scores, although a handful look at other metrics such as high-school graduation rates and college attendance rates. Recent research has called into question the value of test scores as a measurement of academic outcomes. This research finds little or no connection between improvements in K-12 test

scores and improvements in long-term life outcomes, in contrast to high-school graduation and college enrollment (which do seem to be more strongly associated with long-term life outcomes).[4] This limitation is worth keeping in mind.

### Academic Effects on Participants

The most obvious question about academic effects is how school choice participants are affected. Here, we are fortunate that a large body of research exists using the “gold standard” method of random assignment. This method is familiar to many from medical trials, where subjects are randomly assigned to a treatment group and a control group (which gets a placebo). In many school choice programs, parents who apply to the program are selected to participate by a random lottery. This gives

Figure 2: Academic Outcomes of Participants

Location	Author	Year	Results			
			Any Positive Effect		No Visible Effect	Any Negative Effect
			All Students	Some Students		
D.C.	Dynarski et. al.	2017				X
Louisiana	Mills & Wolf	2016				X
Louisiana	Abdulkadiroglu et. al	2016				X
New York	Chingos & Peterson	2015		X		
New York	Bitler et. al.	2015		X		
New York	Chingos & Peterson	2013		X		
D.C.	Wolf et. al.	2013	X			
New York	Jin et. al.	2010		X		
Charlotte	Cowen	2008	X			
Toledo	Bettinger & Slonim	2006			X	
New York	Howell & Peterson	2004		X		
New York	Krueger & Zhu	2004			X	
New York	Barnard et. al.	2003		X		
New York	Howell & Peterson	2002		X		
D.C.			X			
Dayton				X		
Charlotte	Greene	2001	X			
Milwaukee	Greene et. al.	1998	X			
Milwaukee	Rouse	1998	X			

NOTE: This table shows all empirical studies using random-assignment methods.

us a naturally occurring random-assignment experiment design, allowing us to compare choice participants with a population of students that is the same except for random chance. Where a large body of this type of research exists, it ought to take priority over other research.

Across all 19 random-assignment studies I've found, 14 found positive effects for participating students. Two found no visible effect and three found negative effects. The size of the positive effects varies from study to study, but is generally moderate in scale—real but not revolutionary improvement. The negative effects found of a voucher program in Louisiana, by contrast, are large. Meanwhile, a voucher program in Washington, D.C. had both positive and negative findings on different metrics (test scores were moderately negative while high-school graduation rates and college enrollment rates showed a large positive effect).

(see Figure 2)

#### **Academic Effects on Public Schools**

While participant effects are of obvious interest, many more students are impacted by school choice programs through their impact on public schools. If choice programs harm public schools, as opponents claim is the case due to draining of funds and creaming of the best students, they might be a counterproductive policy even if they help the students who use them. On the other hand, if they help public schools by holding them accountable to parents, as advocates claim, that will produce a much wider positive effect than just the impact on participants—since there are still many more public school students than school choice students even where choice programs have grown to considerable size.

The research consistently finds that school choice improves academic outcomes in public schools. Including all studies using all methods (for it is impossible to study this question using random assignment), I've found 34 empirical studies. Of these, 32 find that school choice improves academic outcomes in public schools affected by the program, while one finds no visible difference and one finds a negative impact.

(see Figure 3)

### **III. The Research on Fiscal Effects**

Obviously we care about more than just academic effects in education policy. One major variable to be considered is the fiscal effect of these programs on taxpayers. Cost is a concern in every public policy, and especially in education as school budgets—which had expanded steadily in real terms not only for decades, but for generations—have come under increasing pressure in recent years.

Fiscal effects can be complex to track. One factor to bear in mind is that the same program can create different fiscal effects at different budgetary levels (local and state). This review tracks the total net effect of school choice programs for taxpayers across all levels.

Also, it is important to remember that a program that saves money for taxpayers does not necessarily leave public schools in worse fiscal shape on a per-student basis. This is especially true because large portions of education funding come from local sources (such as property taxes) and federal programs that usually don't go down when the student population decreases. So schools that lose students to choice programs often save more money in reduced education expenses than they lose in revenue associated with the student—they lose only the state portion of student funding, not the local or federal portion, but they lose 100% of the variable expenses associated with educating the student.[5]

Looking at all studies, I have found 45 studies that examine the fiscal effect of school choice programs for taxpayers. Of these, 41 found that school choice saves money for taxpayers, three find no visible difference and one finds a net cost to taxpayers. The net-cost study looked at a choice program serving special-education students in Louisiana, finding that on net it had cost taxpayers \$91 per student since its creation; the same researcher found net savings per student in other programs ranging from \$820 to \$7,322. (see Figure 4)

### **IV. The Research on Segregation and Civics**

The public good is not all about dollars and cents. In addition to academic outcomes

and the fiscal cost of education, we care about the civic health of the polity. Two key areas of civic concern are ethnic segregation and whether schools are teaching students strong civic values and practices.

#### **Effects on Ethnic Segregation**

Ethnic segregation is an important concern in education. Government-run school systems in the U.S. have a terrible history of practicing overt and covert ethnic segregation, and high levels of residential segregation tend to produce continuing school segregation as long as students are assigned to schools based on where they live. The continued existence of ethnically homogenous schools raises concerns that range from basic issues of justice (are old patterns of discrimination and white supremacy being perpetuated by surreptitious means?) to the nature of students' educational experience (are students in homogenous schools being adequately prepared for the kind of pluralistic, multi-ethnic society demanded by the American experiment?)

Unfortunately, most empirical studies that look at segregation use inappropriate methods that do not actually measure the ethnic segregation of schools. Typical methods, like the Gini coefficient, measure how the ethnic makeup of each individual school compares to the ethnic makeup of its school district. However, school district lines are themselves drawn in ways that perpetuate segregation. Using the Gini coefficient, we can miraculously show that every 99%-white school in a 99%-white school district is perfectly integrated, even if that district is right next door to a district that is 99% minority. Jay Greene issues a fitting verdict on what such methods are really telling us: "The schools are well integrated, given that they are horribly segregated." [6]

Valid methods measure segregation either by comparing schools to populations with boundaries drawn independently of the school system (such as Census-designated metropolitan areas), or by measuring racial isolation (looking at whether schools are, for example, over 90% white or over 90% minority). Other methodological concerns include comparing schools at the same grade levels, because primary schools draw from smaller (and therefore more ethnically homogenous) geographic areas.

**Figure 3: Academic Outcomes of Public Schools**

Location	Author	Year	Results		
			Any Positive Effect	No Visible Effect	Any Negative Effect
Ohio	Figlio & Karbownik	2016	X		
Louisiana	Egalite	2016	X		
Louisiana	Egalite	2014	X		
Indiana			X		
Florida	Figlio & Hart	2014	X		
Florida	Bowen & Trivitt	2014			x
San Antonio	Gray et. al.	2014	X		
Florida	Rouse et. al.	2013	X		
Florida	Chakrabarti	2013	X		
Florida	Figlio & Hart	2011	X		
Florida	Winters & Greene	2011	X		
Ohio	Carr	2011	X		
Milwaukee	Mader	2010	X		
Milwaukee	Greene & Marsh	2009	X		
San Antonio	Merrifield & Gray	2009	X		
Ohio	Forster	2008	X		
Florida	Forster	2008	X		
Milwaukee	Chakrabarti	2008	X		
Florida			X		
Milwaukee	Chakrabarti	2008	X		
Florida	Rouse et. al.	2007	X		
Milwaukee	Carnoy et. al.	2007	X		
San Antonio	Diamond	2007	X		
D.C.	Greene & Winters	2007		X	
Florida	Figlio & Rouse	2006	X		
Florida	West & Peterson	2006	X		
Florida	Greene & Winters	2004	X		
Florida	Chakrabarti	2004	X		
Milwaukee	Greene & Forster	2002	X		
San Antonio			X		
Maine	Hammons	2002	X		
Vermont			X		
Milwaukee	Hoxby	2001	X		
Florida	Greene	2001	X		

NOTE: This table shows all empirical studies using random-assignment methods.

**Figure 4: Fiscal Effects on Taxpayers**

Location	Author	Year	Results		
			Any Positive Effect	No Visible Effect	Any Negative Effect
D.C.	Lueken	2018	X		
Florida			X		
Florida			X		
Georgia			X		
Indiana			X		
Louisiana			X		
Louisiana					X
Mississippi			X		
Cleveland			X		
Ohio			X		
Ohio			X		
Ohio			X		
Oklahoma			X		
Utah			X		
Milwaukee			X		
Racine, Wi.			X		
Oklahoma	Dearmon & Evans	2018	X		
D.C.	Spalding	2014	X		
Florida			X		
Florida			X		
Georgia			X		
Louisiana			X		
Cleveland			X		
Ohio			X		
Ohio			X		
Utah			X		
Milwaukee			X		
D.C.	Wolf & McShane	2013	X		
Florida	LOEDR	2012	X		
Milwaukee	Costrell	2010	X		
San Antonio	Merrifield & Gray	2009	X		
Florida	OPPAGA	2008	X		
Vermont	Aud	2007		X	
Maine				X	
Milwaukee			X		
Cleveland			X		
Arizona			X		
Florida			X		
Florida			X		
Pennsylvania			X		
Florida			X		
D.C.			X		
Ohio			X		
Utah					X
D.C.	Aud & Michos	2006	X		

NOTE: This table shows all empirical studies using random-assignment methods.

Some studies measure whether school choice has a causal effect that increases or decreases segregation levels over time, while other studies look descriptively at whether school choice is moving students from more segregated to less segregated classrooms (or vice versa).

Looking at all studies that use valid methods to measure ethnic segregation, I find a total of 10 studies. Of these, nine had positive findings and one found no visible effect. No study has found a negative effect. It appears that, far from parents seeking out segregated schools, detaching school attendance from geographic location improves the ethnic mixing of students. (see Figure 5)

**Effects on Civic Values and Practices**

Education researchers have found a number of ways to measure the effect of schools on civic values and practices. One of the most common is to measure tolerance for the rights of others; researchers typically ask students to identify their most-disliked group, and then ask whether the students would support the rights of that group to vote, organize marches, have books sympathetic to their views in the library, etc. Other measurements include the rates at which students vote and volunteer their time after graduation.

Including all studies with all methods, I've found 11 studies on how school choice programs affect civic values and practices. Of these, eight find positive effects from school choice and three find no visible effect. No study has found a negative effect. It appears that, far from being bastions of anti-democratic sentiment or civic isolation, private schools are highly effective in teaching tolerance and democratic participation as moral imperatives. (see Figure 6)

**V. Policy Recommendations**

School choice policies are better supported by empirical evidence than any other kind of education reform. Of course, questions still remain and there is much for future research to tell us. However, the current state of the research places us far beyond the point where an initial verdict is not only possible, but clearly demanded.

Several conclusions for policy consideration are suggested by this review:

- Existing school choice programs are under regular threat of repeal and even administrative sabotage from hostile regulators.[7] Policymakers should protect school choice programs, given their positive effects.

- Policymakers should carefully consider how best to expand school choice programs. Nationwide, these policies are moving beyond the pilot-test phase to larger-scale programs; given the empirical support for their positive effects, that movement should be welcomed.

- Design flaws in existing programs should be studied so they are not repeated. Of the three negative findings on academic effects for participants, one comes from a program (in Washington, D.C.) where positive effects have also been found in other analyses. By contrast, two negative studies examine Louisiana's voucher program, whose design flaws became a subject of much discussion in the school choice movement as soon as the negative studies appeared.[8] Policymakers should identify key flaws not to reproduce in future programs.

Figure 5: Ethnic Segregation

Location	Author	Year	Results		
			Any Positive Effect	No Visible Effect	Any Negative Effect
Louisiana	Egalite et. al.	2016	X		
Louisiana	Egalite & Mills	2014	X		
Milwaukee	Greene et. al.	2010		x	
Milwaukee	Forster	2006	X		
Cleveland	Forster	2006	X		
D.C.	Greene & Winters	2005	X		
Milwaukee	Fuller & Greiveldinger	2002	X		
Milwaukee	Fuller & Mitchell	2000	X		
Milwaukee	Fuller & Mitchell	1999	X		
Cleveland	Greene	1999	X		

NOTE: This table shows all empirical studies using all methods.

**Figure 6: Civic Values & Practices**

Location	Author	Year	Results		
			Any Positive Effect	No Visible Effect	Any Negative Effect
Milwaukee	DeAngelis & Wolf	2016	X		
Louisiana	Mills et. al.	2016		X	
Milwaukee	Fleming et. al.	2014	X		
Nationwide	Campbell	2013	X		
Milwaukee	Fleming	2012	X		
Milwaukee	Fleming	2011	X		
Toledo	Bettinger & Slonim	2006	X		
D.C.	Howell & Peterson	2002		X	
Nationwide	Campbell	2002	X		
Nationwide	Peterson & Campbell	2001		X	
D.C.	Wolf et. al.	2001	X		

NOTE: This table shows all empirical studies using all methods.

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# Appendix

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# Endnotes

[1] Lawrence Baines and Jeannie L. Hanna, "Privatizing K-12 Public Education," Scholars Strategy Network, undated; for a response see Greg Forster, "Setting the Record Straight on Choice," Oklahoma Council of Public Affairs, March 27, 2019.

[2] Greg Forster, "A Win-Win Solution: The Empirical Research on School Choice, Fourth Edition," EdChoice, May 2016.

[3] Jay P. Greene, Greg Forster and Marcus Winters, *Education Myths*, Rowman & Littlefield, 2005.

[4] For up-to-date citations to this literature, see Jay P. Greene, "The Achievement-Attainment Disconnect Strikes Again!" Jay P. Greene's Blog, April 2, 2019.

[5] For detailed discussions of these issues, see Martin F. Lueken, "Fiscal Effects of School Vouchers," EdChoice, September 2018; and Forster, "Win-Win."

[6] Jay P. Greene, "Choosing Integration," in *School Choice and Diversity: What the Evidence Says*, ed. Janelle T. Scott, Teachers College Press, 2005, p. 30.

[7] Consider for example how Florida Department of Education regulators strangled the state's A+ voucher program by imposing difficult administrative obstacles to student participation; see Greg Forster, "Using School Choice," EdChoice, October 2005, p. 20-21.

[8] See for example Jason Bedrick, "The Folly of Overregulating School Choice," *Education Next*, January 5, 2016.