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Private School Choice Programs

WHAT DO WE KNOW ABOUT THEIR EFFECTS ON OUTCOMES FOR DISADVANTAGED STUDENTS?

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Introduction

Private school choice is spreading across the United States. Twenty-seven states, plus the District of Columbia and Puerto Rico, are home to fifty-six private school choice programs. These initiatives take the form of school vouchers, tax-credit scholarships, or Education Savings Accounts (ESAs). Together, they enrolled more than half a million students in the 2019–20 school year, representing 1 percent of the K–12 school-age population (figure 1).

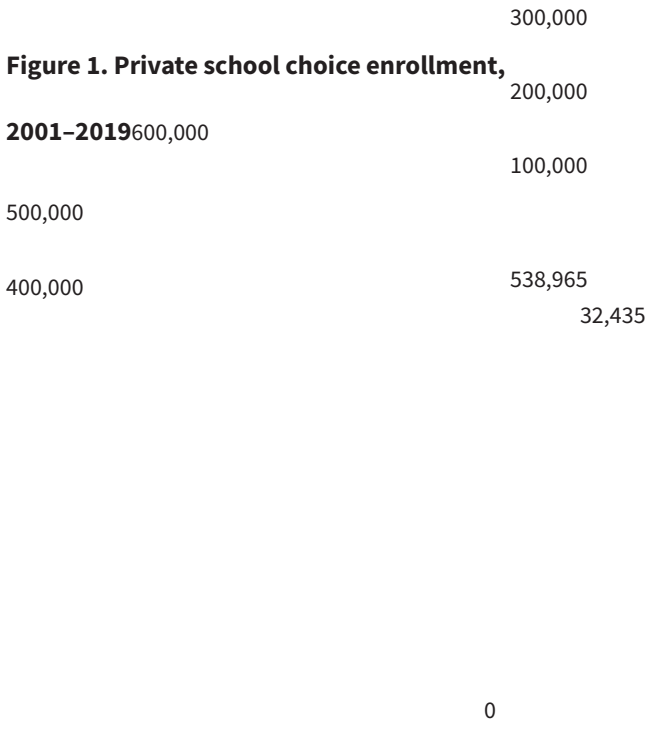
By either design or operation, every private school choice program in the United States is targeted to students who have some disadvantage, be it income, disability, location, or the quality of the public school that they attend.

Private school choice programs are justified based on economic reasons, social justice aspirations, or both. This report explores the extent to which the social science research base on school choice has demonstrated that choice programs have promoted goals of efficiency, effectiveness, equity, and empowerment. In order by section, this essay: examines the history of private school choice programs in their several forms; discusses the motivations behind enacting choice programs; examines the changing private school sector in the United States; describes the characteristics of participants in private school choice programs, reviews the extensive empirical literature on the effects of private school choice on participant test scores, educational attainment, and civic values; considers the systemic effects of private school choice on the finances and performance of affected public schools; and concludes with a discussion of policy design trade-offs and recommendations.

The performance record of private school choice programs, and the strong demand for them from parents, justifies a continued expansion of policy aimed at providing parents more control over their children's education. Choice initiatives that are open to middle class students as well

as low-income ones, and avoid regulations that impinge on school autonomy, are the most likely to attract the participation of a robust set of private schools. The private school sector faces financial challenges, especially due to COVID-19, and the states most favorably predisposed to enact private school choice already have done so, yet choice programs are increasingly popular with the public and are likely to continue and even grow in the future.

Figure 1. Private school choice enrollment, 2001–2019



Source: EdChoice 2020.

Private School Choice Programs

Private school choice initiatives take the distinct forms of vouchers, tax-credit scholarships, and ESAs. These specific mechanisms for providing families with access to private schools of choice differ regarding how they are financed, what these resources can purchase, or both.

School vouchers are funded directly by governments and delivered to parents. They cover only private school tuition and, sometimes, educational fees. In some form, school vouchers have existed in the United States since 1869. In that year, Vermont established a "town tuitioning" program, still in place, whereby the government pays the tuition for students attending private schools who live in rural communities that lack a public school serving their grade level.[1] In 1927, state law permitted town-tuitioning even in rural areas with public schools that spanned all grades. Although students in the program initially could use public funds to attend religious private schools, in 1981 the Vermont Supreme Court ordered that the tuitioning program be limited to secular private schools. In the 2016–17 school year, 3,627 Vermonters attended any of 142 private schools through the program.[2] Maine launched a similar town-tuitioning program in 1873 that served 5,374 students in 60 schools in the 2018–19 school year.[3]

The Milwaukee Parental Choice Program (MPCP), established in 1990, often is described as the first school voucher program in the United States.[4] It began with 341 students enrolled in seven secular private schools.[5] In 1996, the state allowed religious schools to participate

in the program, a change that, once the Wisconsin Supreme Court ruled it constitutional in 1998, increased program enrollments from fewer than one thousand students to more than six thousand.[6] Ohio launched the second urban school voucher program in 1996. The

Cleveland Scholarship and Tutoring Program became the subject of a major US Supreme Court ruling that such programs do not violate the US Constitution as long as government funds reach religious schools only via the choices of parents.[7] Florida launched the first statewide school voucher program in 1999. The program was stayed in 2001, and the Florida Supreme Court struck it down in 2006 for violating the "uniform education" clause of the state constitution.[8] In 2004, the US Congress enacted the first and only federal school voucher program, limited to the District of Columbia (DC).[9] During the 2019–20 school year, 29 school voucher programs operated in 16 states[10] plus DC and Puerto Rico, supporting 217,910 students.[11]

All private school choice initiatives that take the form of voucher programs serve distinctive student populations. Twelve programs are restricted to students with disabilities, eleven are means-tested, three are limited to students in rural areas, and two are restricted to students attending public schools that their state accountability system judges to be failing.[12] Every K–12 student in Cleveland is eligible for the Cleveland Scholarship and Tutoring Program, making it the only universal private school choice program in the United States.[13]

Tax-credit scholarships facilitate access to private schools of choice but without direct funding from the government. The state amends its tax laws to allow corporations, individuals, or both types of taxpayers to contribute a certain maximum amount to qualified nonprofit organizations. Those nonprofits then use the funds to provide partial-tuition scholarships to qualified students. The donors receive a state tax credit worth between 50 and 100 percent of the value of their donation, depending on the state. Tax-credit scholarships differ from vouchers in that the funding never enters the public coffers. Nonprofit organizations administer the program within regulations established by state law. The first tax-credit scholarship program was launched in Florida in 2001, after the state court halted the state's voucher law. During the 2019–20 school year, the Florida Tax Credit Scholarship Program served 108,570 students in 1,836 private schools, making it the largest private school choice program in the country.[14] During that year, 23 tax-credit scholarship programs operated in 18 states, supporting 299,171 students.[15]

As with school vouchers, almost all tax-credit scholarship programs are targeted to disadvantaged student populations. All K–12 public school students in Georgia, and all students between the ages of five and eighteen in Montana, are eligible for tax-credit scholarships, but the total value of the scholarships distributed in those states is capped at $100 million and $3 million, respectively.[16] The twenty-one targeted tax-credit scholarship programs include fourteen that are means-tested, four that are limited to students with disabilities, two that are restricted to students attending failing public schools, and a new Florida program limited to students who have been the victims of violence or bullying in public schools.[17]

The newest and most flexible mechanism for providing private school choice is ESAs. These

accounts function much like the flexible spending accounts that many families use to cover

childcare and medical expenses. The state places a portion of the money it would spend on a child in public school into an expenditure account that the child's parent controls. Withdrawals from the account can cover an extensive set of approved educational expenses, typically including private school tuition, tutoring, textbooks, educational software, and therapies for children with disabilities.[18] Most ESAs permit the funds to roll over annually and to cover college expenses for the child. The first ESA program launched in Arizona in 2011. During the 2019–20 school year, five programs operated in five states, serving 21,884 students.[19]

ESAs are designed to serve students facing various challenges.[20] The Arizona Empowerment Scholarship Account Program is limited to students with disabilities as well as those in the foster care system or on Native American reservations, or who attend failing public schools. The Florida Gardiner Scholarship Program is restricted to students with an Individualized Education Plan (IEP) and those whom a physician has diagnosed with a serious physical disability, as are the North Carolina and Tennessee ESA programs. Mississippi's Equal Opportunity for Students with Special Needs Program is available to any student with an IEP but enrolled just 502 students during 2019–20.[21]

In sum, twenty-seven US states, plus the District of Columbia and Puerto Rico, are home to fifty-six private school choice programs.[22] These initiatives take the form of school vouchers, tax-credit scholarships, and ESAs. Together, they enrolled more than half a million students during 2019–20, representing 1 percent of the K–12 school-age population. In terms of either eligibility or operation, every private school choice program in the United States is targeted toward students who have some disadvantage, be it income, disability, location, or the quality of the public school they attend.

Private school choice operates differently in many non-US countries.[23] Most European and Commonwealth countries recognize a fundamental right of parents to choose the religious or philosophical tradition in which their children are educated.[24] The right of parents to choose their child's school is accompanied by an obligation by the government to fund the child's primary and secondary education. Since few countries outside the United States have a constitutional prohibition against government establishment of religion, most private school choice programs globally involve the direct financing of private, including religious, schools by government, in contrast to the indirect methods of financing private school choice in the United States. Such direct funding of religious schooling could be allowed in the United States in the future, depending on how the current US Supreme Court case *Espinoza v. Montana Department of Revenue* is decided. Still, private school choice in the United States likely will continue to be funded indirectly regardless of the *Espinoza* decision because the direct funding of private schooling in many European countries is accompanied by more extensive government regulation of religious schools than Americans likely would tolerate.[25]

Motivations for Private School Choice

School choice initiatives tend to be justified based on a mix of economic and social justice criteria. Milton Friedman famously argued that government should fund K–12 public education due to the positive spillovers that educated citizens create for the broader society.[26] Government-run schools need not be the sole, or even the main, delivery mechanism for publicly funded education, he claimed. The traditional public school system unnecessarily operates as a monopoly, Friedman observed, with the flaws endemic to monopolies, including inefficiency, ineffectiveness, and unresponsiveness to their captive audience of customers.

John Chubb and Terry Moe further developed and extended Friedman's political economy argument in their book *Politics, Markets, and America's Schools*.[27] They reason that elected school board members and state legislators seek to guarantee that their preferred education policies will continue after they leave office. To do so, they layer the public school system with regulations, standard operating procedures, and like-minded administrators to enforce them. Bureaucracy undermines the efficiency, effectiveness, and responsiveness of public schools, according to Chubb and Moe, a fate that independent private schools can avoid. Caroline Hoxby argues that competition from school choice programs motivates the hitherto public school monopoly to improve its operations in an effort to attract and retain students.[28] Competition generates a rising tide of educational performance that lifts all boats, she claims, including those of the nonchoosing students left behind in traditional public schools.

Scholars differ regarding the specific mechanism by which private school choice might generate better outcomes for participants.[29] Some observers argue that private schools are objectively more effective educational institutions than public schools.[30] Other writers suggest that private school choice benefits students through allocative efficiency. A given student is best educated in a type of school that addresses that student's specific needs. Allowing parents to select among a diverse set of distinctive schools, including private ones, increases the likelihood of an effective student-school match.[31] Empirical studies confirm that parents with clear preferences regarding desirable features of schools for their children and the opportunity to choose from among a diverse set of schools are more likely than parents of residentially assigned students to get the education outcomes that they seek.[32]

Other scholars emphasize the social justice motivation for school choice. John Coons observes that families of wealth buy their children's way into desirable schools (and this practice existed long before the "Varsity Blues" scandal) by purchasing expensive homes in upscale public school districts or by self-financing private schooling. "The rich buy autonomy," Coons writes. "The rest get conscripted" into low-performing government run schools. "'Public'? To the contrary[,] the system is a Balkanized plutocracy."[33] Harry Brighouse points out, while discussing the US system of residential assignment to government-run schools: "There is something deeply inequitable about a system that effectively accords

parental choice only to the wealthy."[34]

These scholars are concerned by the fact that public school quality varies dramatically based on geography. Under a policy of residential assignment to public schools, where you live determines where you learn. Families with more wealth are better able to locate in areas with high-quality public schools, a practice commonly referred to as Tiebout choice, after the economist who first described it.[35] Families with less wealth tend to be stuck in lower income neighborhoods with lower-quality public schools, thus motivating them to seek schooling options for their children other than their neighborhood public schools.

Finally, William Howell and his colleagues write that the benefits of school choice, in the form of higher levels of academic achievement, are realized most clearly and consistently by African American students.[36] In follow-up research, Matthew Chingos and Paul Peterson report that a similar pattern holds for the educational attainment of students who participated in a privately funded scholarship program in New York City.[37] The benefits of school choice in boosting rates of college enrollment and degree attainment, they find, are clear only for African American students and the children of nonimmigrant mothers. Since African American students are a historically disadvantaged subpopulation, a consistent pattern of positive school choice effects that favors such students would validate both the market-based and the social justice justifications for private school choice.

The Changing Private School Sector in the United States

The school sector delivering private school choice is changing. Student K–12 enrollment in US private schools has declined modestly but steadily over the past fifty years, from a high of 6.3 million, or 15 percent of all K–12 students, in 1965, to 5 million, or 9 percent of the market share, in 2013–14.[38] According to the US Department of Education's Private School Universe Survey, total enrollment in private schools dropped by nearly half a million students from 2001 to 2017, an 8 percent decline.[39]

The drop in private school enrollments specifically over the past two decades does not appear to be due to a decline in the quality of the education delivered in the private school sector. Private school students were fully included in the modern National Assessment of Education Program (NAEP) administrations for the first time in 1998 in reading and 1996 in math. From 1998 to 2017, average NAEP reading scores for Catholic school students in eighth grade were essentially flat, increasing by a single point, from 282 to 283. Average scores for the entire private school sector were not available in 2015 and 2017, due to low response rates from non-Catholic private schools, but the average eighth grade reading score in private schools increased four points from 1998 to 2013, growing from 281 to 285. From 1996 to 2017, average NAEP math scores for eighth-graders in Catholic school increased nine points, from 285 to 294. The math NAEP gain for all private school students from 1996 to 2013 was eleven points, from 285 to 296. Average NAEP scores for private school fourth graders similarly increased slightly in reading and substantially in math from the turn of the millennium until a few years ago. It is impossible to know if the slight improvements

in private school NAEP scores over the past two decades are due to the changes in the characteristics of the students enrolled in private schools or improvements in the education those schools are delivering. What we can say is that *the average test scores of students in the private school sector are improving even as the sector is losing market share*.[40]

The modest reduction in total private school enrollment masks major changes in the population of schools in the private sector and the students they serve. Catholic schools no longer dominate the private school sector. In 1965, Catholic school students composed over 89 percent of total private school enrollments in the United States.[41] From 1960 to 2010, however, the number of Catholic schools dropped by almost half, from thirteen thousand to just seven thousand.[42] By 2013, only 42 percent of private school enrollments were in Catholic schools.[43]

The significant drop in the number of Catholic schools and the total number of students they serve has several likely causes.[44] Anti-Catholic bigotry declined substantially after World War II, as evidenced by the 1960 election of John F. Kennedy as the country's first Catholic president.[45] The assimilation of Catholics into mainstream American society led fewer of them to seek refuge for their children in the comfortable confines of Catholic schools. Catholic families also grew more prosperous during the postwar boom, allowing them to participate in the mass migration from the cities, where most Catholic schools were concentrated, to the suburbs, many of which lacked Catholic schools. After the Second Vatican Council (1962–65), Catholic religious vocations declined and laypeople replaced the nuns, brothers, and priests who previously had dominated the staffing of Catholic schools, significantly increasing the cost of school tuition. The sexual abuse scandal in the US Catholic Church likely reduced Catholic school enrollments both directly, due to parental concerns for their children's safety, and indirectly, as church payments to victims reduced the ability of many dioceses to subsidize the cost of Catholic school tuition.[46]

After 1990, public charter schools emerged as rivals to both traditional public schools and private schools, especially in the urban areas where Catholic schools are concentrated.[47] Urban parents who wanted to enroll their children in smaller schools that were free from the regimentation of traditional public schools could save thousands of dollars annually by choosing a charter school instead of a Catholic one. In some cities, Catholic schools transformed themselves into public charter schools to continue to serve disadvantaged urban students, but with direct government financial support.[48]

New York is an exemplar of this decline in Catholic school dominance of the private sector. Private schools generally, and Catholic schools particularly, have been a mainstay of K–12 education in New York State since the first wave of Irish immigrants graced the nation's shores in the mid-1800s. From 2000 to 2018, however, private school enrollments dropped by 16 percent in the Empire State, twice the national average decline.[49] Catholic school enrollments contracted by almost half, while enrollments in Jewish schools surged by more

than 60 percent, replacing Catholic schools as the largest provider of private schooling in New York.[50] A budding public charter school sector in New York City now serves about 119,000 students, compared to the 256,678 enrolled in all private schools in the city.[51]

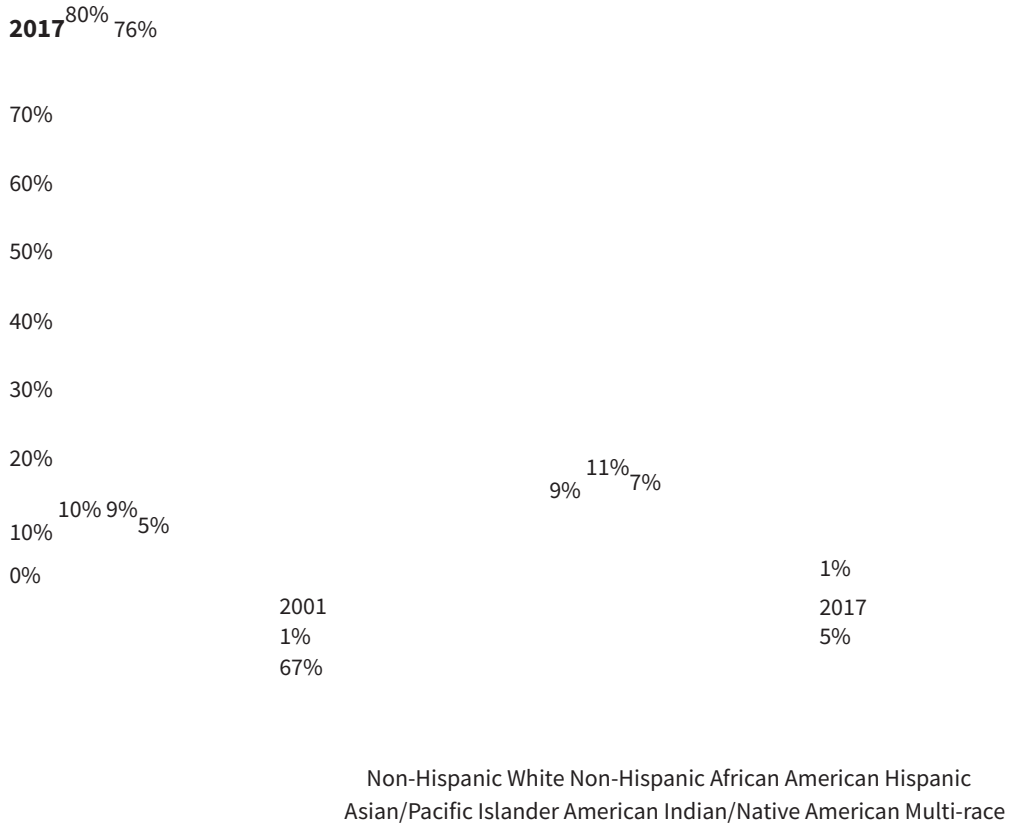
Private schools have diversified in their identities, breaking from the standard models of either parochial or elite secular education. This diversification is consistent with the need for organizations to find and occupy relatively narrow niches in a highly competitive market environment.[52] Mater Dei Catholic high schools concentrate class instruction in the morning hours, requiring all students to work off-campus in the afternoons to learn a trade, develop habits of personal responsibility, and pay for their "free" tuition. Classical elementary and high schools, in both private and public charter forms, ground their curricula in the classical Western canon and focus on the Trivium of grammar, meaning foundational skills; logic, meaning analytic thinking; and rhetoric, meaning explication.[53] Collaborative homeschooling networks grow to a critical mass of students and reinvent themselves as private microschools. Even as small groups of private schools have become more distinctive in their curricular focus or school culture, some of them have adopted an innovation from the public charter school sector, realizing economies of scale by using school management organizations to handle administrative tasks.[54]

Just as characteristics of private schools are changing, so too are the demographics of private school students. Fifty years ago, the students attending private schools were overwhelmingly middle-class, white, and Catholic. All three of these defining features of the private school population have changed. Since 1970, "the share of middle-income students attending private schools has declined by almost half, while the private school enrollment rate of wealthy children has remained steady."[55] The private school enrollment rate of low-income students, while always lower than that of middle- and upper-income students, also has remained steady, generating an emerging bipolarity in the income distribution of private school students, with both upper- and lower-income students occupying a larger share of the private school seats as the share of middle-income students diminishes.

The racial composition of the private school sector has changed as well (figure 2). In 2001, 76 percent of private school students were non-Hispanic white, 10 percent were non-Hispanic African American, 9 percent were Hispanic, 5 percent were Asian/Pacific Islander, and 0.7 percent were American Indian/Alaska Native.[56] By 2017, the racial composition of the private school sector was 67 percent white, 9 percent African American, 11 percent Hispanic, 7 percent Asian/Pacific Islander, 0.5 percent American Indian, and 5 percent multiracial.[57]

Since each race's share of the K–12 student population has changed somewhat during that seventeen-year period, more important is the average private school enrollment rate for students in the various race categories. In 2013, 11 percent of white students were enrolled in a private school, compared to 5 percent of African American students and only 3 percent of Hispanic students.[58] Hispanic families appear to be the racial group most sensitive to

Figure 2. Racial composition of private school sector, 2001 vs.



Sources: US Department of Education 2003; US Department of Education 2019.

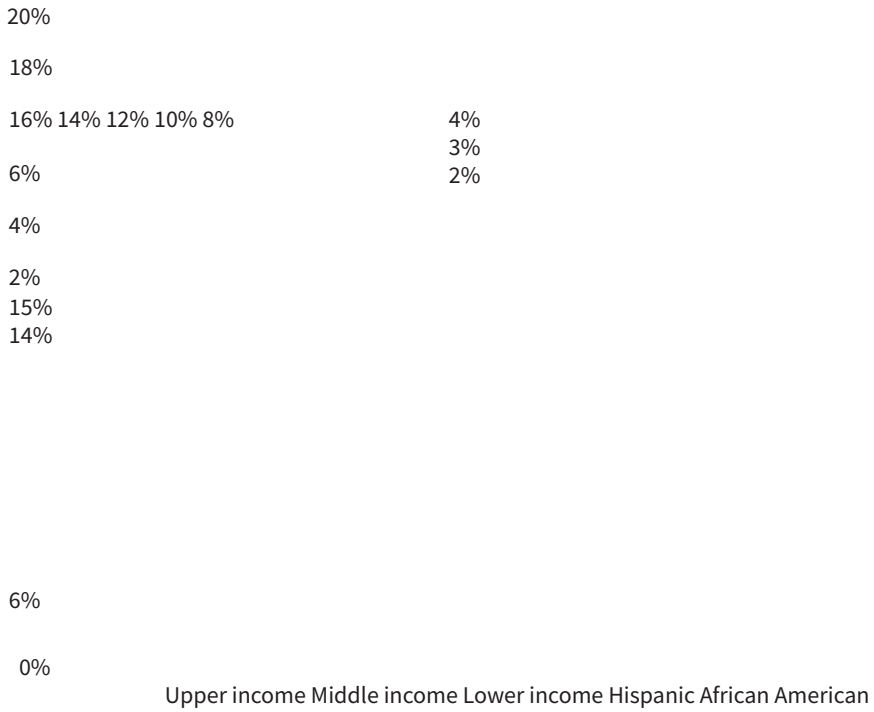
private school costs, as their private school enrollment rate of almost 15 percent for upper income Hispanic families drops precipitously to 3 percent for middle-income Hispanic families and less than 2 percent for lower-income ones. African American families enroll their students in private schools at a rate similar to Hispanic families if they are upper income, at 14 percent, but 6 percent if they are middle-income (a rate double that of Hispanic families) and 4 percent if they are lower-income (figure 3).[59]

The private school population has become less Catholic, for two reasons. First, Catholic schools no longer dominate the sector. Data from 2015–16 indicate that 36 percent of all private school enrollments were in Catholic schools, 39 percent were in non-Catholic religious schools, and 24 percent were in secular schools.[60] Second, Catholic schools are less monolithically Catholic in their student enrollments than they used to be. Urban Catholic schools are enrolling many non-Catholic students as the "Catholic school brand" has become attractive to inner-city families of various faith traditions or even no religion.[61]

Private school enrollments likely would have dropped even more precipitously if not for the

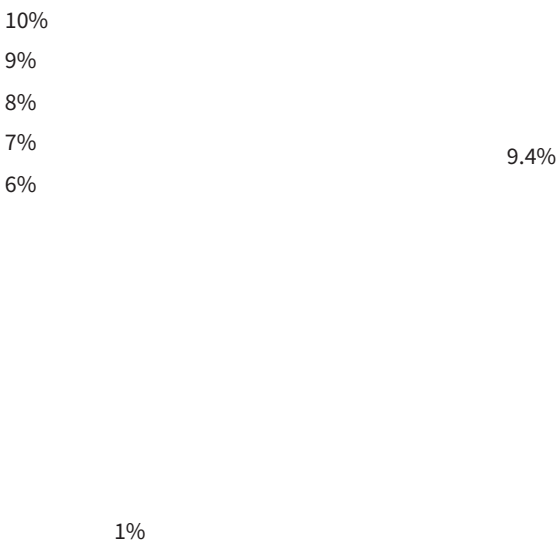
dramatic growth in participation in private school choice programs, especially after 2011, the "Year of School Choice." The proportion of private school students supported by a private school choice program increased from 0.6 percent in 2001 to 4.6 percent in 2011 (figure 4). The school choice share of private school enrollments more than doubled in

Figure 3. Hispanic and African American private school enrollment by income



Source: Murnane et al. 2018.

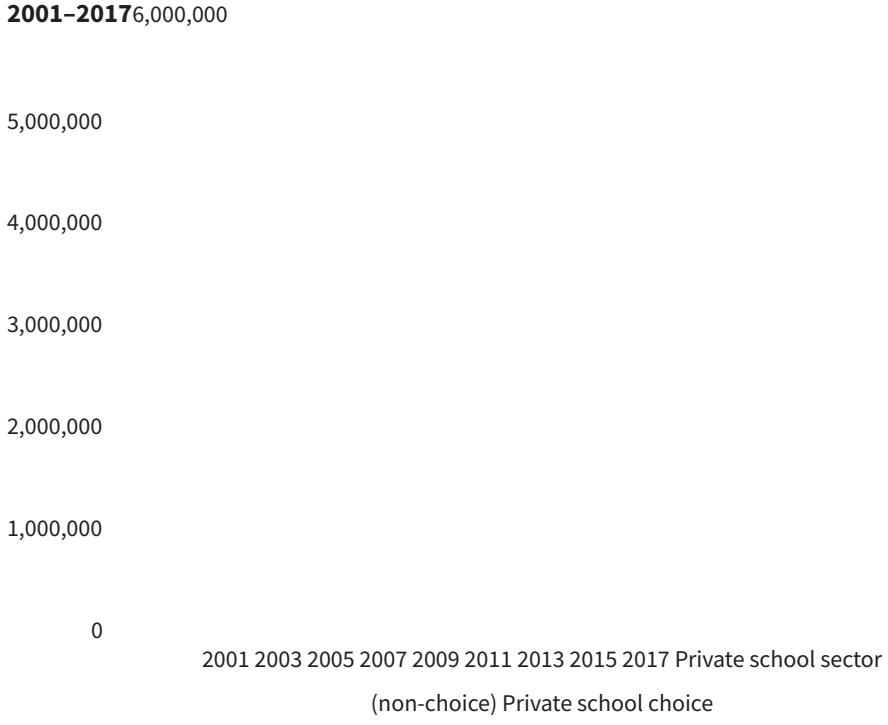
Figure 4. School choice share of private school sector, 2001–2017



Sources: US Department of Education 1989–2018; EdChoice 2020, 7–8.

the next six years, to 9.4 percent in 2017. Since most private school choice programs have expanded their enrollments in the past few years, it is safe to say that *more than 10 percent of all private school students in the United States are being supported financially through a school choice program*. Without school choice, current private school enrollments likely would be below 8 percent of all K–12 enrollments and even more urban private schools would have shuttered their doors.[62]

Figure 5. Private school enrollment by school choice status of students, 2001–2017



Sources: US Department of Education 1989–2018; EdChoice 2020, 7–8.

A common charge against private school choice is that it threatens public education. Grace Chen writes, "Most school leaders and community members would agree that vouchers pose a great risk to threatening [*sic*] the public school system and the general community."[63] Steve Nelson puts it even more succinctly in the *Huffington Post*: "Voucher programs are certain to end public education as we know it."[64] The actual experience of private school choice in the United States belies these apocalyptic pronouncements. Since the introduction of the first urban school voucher program in 1990 until today, the public school share of the K–12 education market actually has increased slightly. Even the surge in private school choice enrollments since 2011 has fallen short

of reclaiming lost market share for private schools (figure 5). All that school choice has accomplished is to lessen the magnitude of the seemingly unrelenting decline in the proportion of the K–12 population that private schools educate. Based on the aggregate enrollment counts and trends, *it is not the public school sector that is in danger of Armageddon due to school choice; it is the private school sector that is threatened with near extinction in spite of school choice*. This reality has been largely overlooked amid the heated debate over private school choice.

In sum, the private school sector in the US has changed substantially during the past fifty years. Total student enrollments have declined moderately, both in actual numbers and as a share of all K–12 enrollments. Middle-income student enrollments have dropped dramatically, and middle-class Hispanic families are enrolling their children in private

schools at much lower rates now than they previously did. The schools in the private sector have changed as well, with many traditional Catholic parochial schools closing and new, more distinctive models of private schools opening. Even as the private school sector has become less Catholic, it has become more catholic, attracting a greater diversity of students from various family backgrounds and religious or nonreligious traditions. Private school choice, often characterized as an existential threat to the public school sector, thus far has served merely to slow the steady decline in private school enrollments. Choice programs also have affected the types of students that the dwindling population of private schools serve.

Student Participants in Choice Programs

Who are the half million students attending private schools through choice initiatives? Empirical studies have examined student participation in voucher, voucher-type, and tax-credit scholarship programs that target disadvantaged students in Charlotte, North Carolina; Florida; Indiana; Louisiana; Milwaukee, Wisconsin; Ohio; New York City; and Washington, DC.

Applicants Compared to Nonapplicants

Most voucher programs target students in low-income families, who have disabilities, or who attend low-performing public schools. The New York City school choice program, funded privately by the School Choice Scholarships Foundation (SCSF), had a greater proportion of African American applicants and a lower non-Hispanic white population, as well as a larger proportion of welfare recipients, among applicants compared to nonapplicants when it launched in 1998.[65] Students with disabilities, African Americans, and students in the free or reduced-price lunch program applied to the DC Opportunity Scholarship Program in numbers that exceeded their share of the DC school population in 2004 and 2005.[66] David Campbell, Martin West, and Paul Peterson found that the privately funded national Children's Scholarship Fund (CSF) program in Charlotte attracted applications from African American and Hispanic students, as well as children of mothers with higher levels of education, at higher rates than their proportion of the eligible student population in 1999.[67]

In a recent study of the Louisiana Scholarship Program (LSP), Yujie Sude and I reported that applicants to the private school voucher program were disproportionately African American, Hispanic, eligible for free or reduced-price lunch, and enrolled in the elementary grades.[68] Their baseline test scores in math and reading averaged half a standard deviation lower than nonapplicants in the state. An additional report on the LSP determined that 13 percent of initial applicants had disabilities, a rate identical to the statewide average.[69]

Decliners Compared to Users

Voucher programs targeted to low-income families tend to result in three-quarters of recipients using their vouchers to attend a private school of choice. In New York City's SCSF, the usage rate was 74 percent during the program's first year.[70] It was 76 percent in the CSF program

in Charlotte.[71] In the federally funded voucher program in Washington, DC, 75 percent of the lottery winners used a voucher in the first year.[72] The LSP used a single lottery that simultaneously awarded a voucher and placement in a preferred private school, producing an exceptional initial usage rate of 87 percent.[73]

Who are the private school choice decliners? The influence of baseline student test scores on patterns of voucher declining has been mixed. Evidence from New York;[74] Washington, DC;[75] and Ohio[76] suggests that relatively low-achieving students are more likely to decline an awarded voucher, while Florida presents evidence of higher-performing students being less likely to use a tax-credit scholarship to attend private schools.[77] Baseline test scores were not predictive of voucher declining in Louisiana.[78]

Student demographics more consistently predict voucher usage than do test scores. Males, African Americans, Hispanics, and students with disabilities are more likely to decline a voucher when offered.[79] Lower socioeconomic status, which includes families with lower household income, lower maternal educational level, and larger family size, tends to increase the likelihood of students declining a voucher award.[80] Voucher decliners in the DC and Milwaukee programs tend to have higher residential stability.[81] Voucher decliners in New York City; Dayton, Ohio; and Washington, DC, claim the inconvenient locations of preferred private schools are a barrier to voucher use.[82]

Few scholars have examined the effects of public school resources on persuading students to decline a voucher. Campbell, West, and Peterson find that the attributes of a student's residential school district appear to influence school choice decisions.[83] Students from districts with higher proportions of minority students, lower educational expenditures, and lower private school density are more likely to decline to use a voucher. In Louisiana, the features of the private school that students are placed into by the lottery predict rates of scholarship use, as do characteristics of the public school district in which students live and their previous experience with public schools of choice.[84] Students are more likely to decline their voucher if their assigned private school is farther away from their home, has a higher proportion of minority students in its population, and

charges a lower tuition.[85] They are more likely to decline if their public school district spends more per pupil, a result in conflict with the earlier finding by Campbell, West, and Peterson,[86] and if the district contains more public charter schools. Students who previously attended a charter school are more likely to decline their voucher award, while students who previously attended a public magnet school are less likely to do so.

Attriters Compared to Persisters

After initially participating in school choice programs, students leave them at high annual rates. In Milwaukee, the annual program attrition rate has ranged from 22 percent to 35 percent.[87] In New York City, the rate has been about 22 percent.[88] In the Indiana Choice Scholarship Program, 16.3 percent of the voucher users exited the program after the

first year.[89] The attrition rates in voucher programs are only slightly higher than student mobility rates in public schools. The Institute of Medicine and National Research Council reports that in 1998, roughly 33 percent of fourth-graders, 20 percent of eighth-graders, and 10 percent of twelfth-graders had changed schools at least once in the previous two years.[90] Mobility rates tend to be even higher in large urban districts, where low-income students disproportionately live.

Studies of students who stop participating in private school choice programs present a clear pattern. Students who struggle in private schools academically leave the programs at higher rates.[91] Students who exit choice programs are more likely to be in higher grades,[92] with lower residential stability[93] and lower family income[94] than students who persist in the programs. These attrition characteristics also describe students with educationally disadvantaged backgrounds, whom the programs target. Students who attend private schools with a larger share of minority or voucher students tend to have a higher likelihood of returning to public schools.[95]

The effect of student ethnicity on school voucher use appears to be highly context dependent. African American students awarded vouchers are more likely than students of other ethnicities to use them, initially and persistently, in Louisiana,[96] New York City,[97] and Washington, DC.[98] African American students are less likely than non–African Americans to use vouchers or scholarships, initially or persistently, in the national Children's Scholarship Fund program,[99] in the early stages of the Milwaukee program,[100] and in Milwaukee more recently.[101] Similarly, some studies find that being Hispanic increases the likelihood of a student using a voucher,[102] while other studies report the opposite relationship.[103]

Students with Disabilities

When it comes to school choice programs, students with disabilities are a special case. Twenty-one of the fifty-six voucher, tax-credit scholarship, and ESA programs in the United States are restricted to such children. Disability-only private school choice programs enrolled 122,208 students in the 2018–19 school year, representing more than 25 percent of all students supported by school choice programs nationwide, or more than double the representation of students with disabilities in the overall K–12 population. Parent surveys indicate high levels of

satisfaction with private school choice programs that are customized for and limited to students with disabilities.[104]

Students with disabilities also apply to and participate in private school choice programs that are means-tested or limited to students in low-performing public schools. Most studies find that students with disabilities apply to those kinds of private school choice programs at rates similar to or higher than students without disabilities. Those same studies consistently find that students with disabilities are much more likely to decline a voucher award initially or drop out of the program after initial voucher use than their peers without disabilities.

What do we know about how private schools in choice programs accommodate students with disabilities? First, parents of students with disabilities tend to be especially eager to find a school that effectively addresses their children's special needs. Second, many parents are used to the special education programs in district-run public schools that focus on student rights and the procedural obligations of schools and districts.[105] Some parents of students with disabilities who apply to private school choice programs might expect their children to receive all of the programmatic supports provided to students with disabilities in public schools, but without the bureaucratic red tape. They might not realize that (*a*) the procedural and service guarantees in their children's Individualized Education Programs do not transfer to private schools of choice, and (*b*) most private schools have modest special education programs that approximate the model of full inclusion of students with disabilities in the regular classroom program.[106] Most private schools follow inclusion policies for students with disabilities, in part due to a general philosophy that all students can succeed and in part due to the fact that private schools do not qualify for federal or state special education funding. Private schools also are less likely than public schools to label a student as having a disability and are more likely to drop any disability label that a student has, for those same reasons.[107]

After receiving a private school voucher and searching for a private school, or after enrolling in a private school of choice for a short period of time, parents of students with disabilities might discover that the school is neither obligated nor able to provide a comprehensive set of programmatic supports for their children. That realization might prompt them to decline to use the voucher, initially or in the first year or two of participation, and to return to the public school system or to enroll in a private school choice program that is specifically designed for students with disabilities, if one is available to them.

In sum, students who come from disadvantaged families tend to be more likely to apply for private school vouchers. In part, this phenomenon is due to the deliberate targeting of many programs to underprivileged students. Even among the population of eligible students, however, actual applicants tend to be disadvantaged relative to nonapplicants in ways that drive them to seek private schooling options. Among program applicants, students who are relatively disadvantaged, especially in terms of baseline test scores and disability status, are more likely to decline a voucher once offered in most studies. Even after accepting the voucher, these students are more likely to transfer back to public schools. We do not know if these patterns of voucher

declination and voucher program attrition are caused by more disadvantaged students somehow being prevented from attending private schools, being "counseled out" of them once they are there, or voluntarily leaving the program because their private school of choice is not a good fit for them. It is at least possible that some families, both disadvantaged and advantaged, have a higher preference for public schooling even when the opportunity for private schooling is offered to them or after personally experiencing private schooling. It does appear that students are more likely to *apply* to a private school choice program when their public schooling options are

less attractive. Evidence suggests that they are more likely to *leave* a private school of choice when their public schooling options are *more* attractive.

Only one study has compared the characteristics of students who persisted in a private school choice program with those who never applied. Such a comparison allows us to determine the cumulative effect of "negative selection" at the application stage, meaning less advantaged students apply, and "positive selection" at the usage stage, meaning more advantaged students persist in the program. Yujie Sude and I find that, after three years, persistent voucher users in the Louisiana Scholarship Program were significantly more likely to be African American and eligible for the free and reduced-price lunch program than Louisiana students who never applied to the program.[108] Persistent users also were significantly more likely to be female than were nonapplicants, and they disproportionately entered the program in the lower elementary grades. It is possible that male students and older students from highly disadvantaged backgrounds have difficulty reaching an accommodation with the academic and behavioral norms in their private schools of choice, at least in Louisiana.

Participant Effects of School Choice

Ideally, we want children's K–12 experiences to impart a substantial amount of learning, drive them to attain the academic degrees and credentials that will support them in their vocations, and inculcate in them a variety of civic values that will make them effective citizens. What effects do private school choice programs in the United States have on these three key outcomes?

Most of the studies reviewed below examine private school choice programs. As detailed above, the participants in such programs tend to be disadvantaged compared to the typical K–12 student. Thus, the findings from such studies are of the effects of private school choice on disadvantaged students. Any findings pertaining to specific subgroups of economically, academically, or socially disadvantaged students are highlighted in the discussion.

Achievement

As of this writing, researchers have conducted twenty-four empirical analyses of the reading achievement effects of private school choice programs in the United States (table 1) and twenty-four assessments of the math achievement effects of such programs (table 2). The first study of school choice achievement effects focused on the Milwaukee Parental Choice

Program; John Witte reported no statistically significant achievement effects of the program in reading or math after four years.[109] A more recent study, by Ann Webber and her colleagues, of the DC Opportunity Scholarship Program, similarly found no program impacts on student achievement in either subject after three years.[110] In the twenty-one years between these two studies, however, the achievement effects reported from private school choice studies followed interesting patterns that defy easy characterization.[111]

Table 1. Participant effects of private school choice programs in the United States on reading test scores

Study Study type Location Study year Outcome year Overall findings

Egalite, Stallings, and Porter QED North Carolina 2020 1 +0.44 standard deviations Webber et al. Experimental D.C. IV 2019 3 Null Mills and Wolf Experimental Louisiana 2019 4 −0.22 s.d. or Null Waddington and Berends QED Indiana 2018 4 Null

Abdulkadiroglu, Pathak, and Walters Experimental Louisiana 2018 1 −0.08 standard deviations

Anderson and Wolf Experimental D.C. III 2017 4 +9 points Figlio and Karbownik QED Ohio 2016 3 −0.31 standard deviations Bitler et al. Experimental New York 2014 3 Null Wolf et al. Experimental D.C. II 2013 4 +5 points Witte et al. QED Milwaukee 2012 4 +0.15 standard deviations Figlio QED Florida 2011 1 +4 points Jin, Barnard, and Rubin Experimental New York 2010 1 Null Cowen Experimental Charlotte 2008 1 +8 points Krueger and Zhu Experimental New York 2004 3 Null Barnard et al. Experimental New York 2003 1 Null Metcalf et al. QED Cleveland 2003 5 Null Peterson et al. Experimental New York 2003 3 +7 percentiles, subgroups Peterson et al. Experimental D.C. I 2003 3 Null Peterson et al. Experimental Dayton, OH 2003 2 +8 percentiles, subgroups Greene Experimental Charlotte 2001a 1 +6 percentiles, combined Greene, Peterson, and Du Experimental Milwaukee 1999 4 +6 percentiles Peterson, Greene, and Howell QED Cleveland 1998 1 +5 percentiles Rouse Experimental Milwaukee 1998 4 Null Witte QED Milwaukee 1998 4 Null

Notes: "Study year" refers to year of publication; QED stands for quasi-experimental design. A null finding is one that was not statistically significant at $p < .10$. Overall findings are taken from the authors' preferred statistical model. Findings that are positive and statistically significant appear with no shading, while those that are null appear with light shading and those that are negative and statistically significant appear with dark shading.

In reading, eleven studies report positive effects, ten find no statistically significant differences between the choice students and the control or comparison groups, and three report negative achievement effects. In math, nine studies report positive effects, eleven find no differences, and four report negative achievement effects. Using standard vote-counting methods in summarizing results, with a positive result counting +1, a null or no significant difference result 0, and a negative result –1, private school choice programs score +8 in improving reading achievement and +5 in boosting math achievement. That pattern is not the whole story, however.

Table 2. Participant effects of private school choice programs in the United States on math test scores

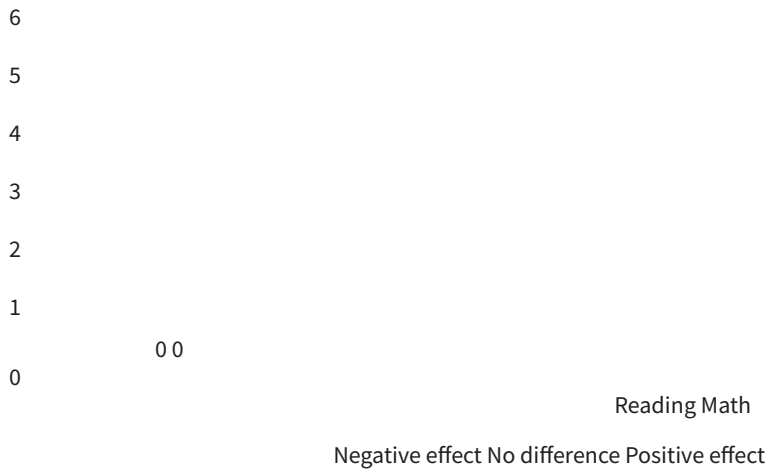
Study	*Study type*	*Location*	*Study year*	*Outcome year*	*Overall findings*
Egalite, Stallings, and Porter	QED	North Carolina	2020	1	+0.36 standard deviations
Webber et al.	Experimental	D.C.	2019	3	Null
Mills and Wolf	Experimental	Louisiana	2019	4	−0.39 s.d. or −0.28 s.d.
Waddington and Berends	QED	Indiana	2018	4	–0.15 standard deviations
Abdulkadiroglu, Pathak, and Walters	Experimental	Louisiana	2018	1	−0.41 standard deviations
Anderson and Wolf	Experimental	D.C.	2017	4	Null
Figlio and Karbownik	QED	Ohio	2016	3	−0.54 standard deviations
Bitler et al.	Experimental	New York	2014	3	Null
Wolf et al.	Experimental	D.C.	2013	4	Null
Witte et al.	QED	Milwaukee	2012	4	Null
Figlio	QED	Florida	2011	1	+4 points
Jin, Barnard, and Rubin	Experimental	New York	2010	1	+4 points, subgroups
Cowen	Experimental	Charlotte	2008	1	+7 points
Bettinger and Slonim	Experimental	Ohio	2006	1	Null
Krueger and Zhu	Experimental	New York	2004	3	Null
Barnard et al.	Experimental	New York	2003	1	+5 points, subgroups
Metcalf et al.	QED	Cleveland	2003	5	Null
Peterson et al.	Experimental	New York	2003	3	+12 percentiles, subgroups
Peterson et al.	Experimental	D.C. I	2003	3	Null
Peterson et al.	Experimental	Dayton, OH	2003	2	Null
Greene, Peterson, and Du	Experimental	Milwaukee	1999	4	+11 percentiles
Peterson, Greene, and Howell	QED	Cleveland	1998	1	+9 percentiles, subgroups
Rouse	Experimental	Milwaukee	1998	4	+8 points
Witte	QED	Milwaukee	1998	4	Null

Notes: "Study year" refers to year of publication; QED stands for quasi-experimental design. A null finding is one that was not statistically significant at $p < .10$. Overall findings are taken from the authors' preferred statistical model. Findings that are positive and statistically significant appear with no shading, while those that are null appear with light shading and those that are negative and statistically significant appear with dark shading.

From 1998 through 2012, the achievement effects of voucher and voucher-type programs were consistently in the range of null to positive (figure 6). In reading, eight studies of that era report achievement gains either overall or for policy-relevant subgroups of students, while the other seven find only null effects, for a vote count score of +8. In math, the pattern is identical: seven studies observe null effects, but eight report that private school choice has a positive effect on student math scores, a net score of +8.

That pattern changed after 2012. Since then, the reading effects of choice programs have been decidedly mixed: positive in three studies, null in another three reports, and

Figure 6. Private school choice evaluations: reading and math findings through



Notes: Positive effects are statistically significant at p < .10 or better and count +1. No difference findings are not statistically significant and count 0. Negative effects are statistically significant at p < .10 or better and count –1.

Sources: Barnard et al. 2003; Bettinger and Slonim 2006; Cowen 2008; Figlio 2011; Greene 2001a; Greene, Peterson, and Du 1999; Jin, Barnard, and Rubin 2010; Krueger and Zhu 2004; Metcalf et al. 2003; Peterson et al. 2003; Peterson, Greene, and Howell 1998; Rouse 1998; Witte 1998; Witte et al. 2012.

negative in three evaluations, for a net score of 0 (figure 7). The voucher record on math achievement shifted even more dramatically, from tilting positive through 2012 to tilting negative since then. Only one recent private school choice study has reported positive math effects; four have observed null effects; and four have reported negative effects, for a net score of –3 (figure 7). The negative math impacts reported for the Ohio EdChoice Program[112] and the Louisiana Scholarship Program[113] are disconcertingly large.

Does the pattern of results vary by the rigor of the research design? Some reviews of private school choice achievement effects have focused exclusively on experimental studies.[114] Experimental evaluations randomly assign students to receive or not to receive a private school voucher. Many social scientists view experiments as the gold standard for evaluation because they give us great confidence that any differences between the experimental treatment and control groups are caused by the program and not some other factor.[115] Quasi-experimental evaluations use various techniques to try to approximate the conditions of experiments. If those techniques work in the context of the evaluation, quasi-experiments can produce causal results similar to those of true experiments.[116] I do not pass judgment on whether the specific quasi-experiments in this set satisfy the conditions for causal

Figure 7. Private school choice evaluations: reading and math findings after

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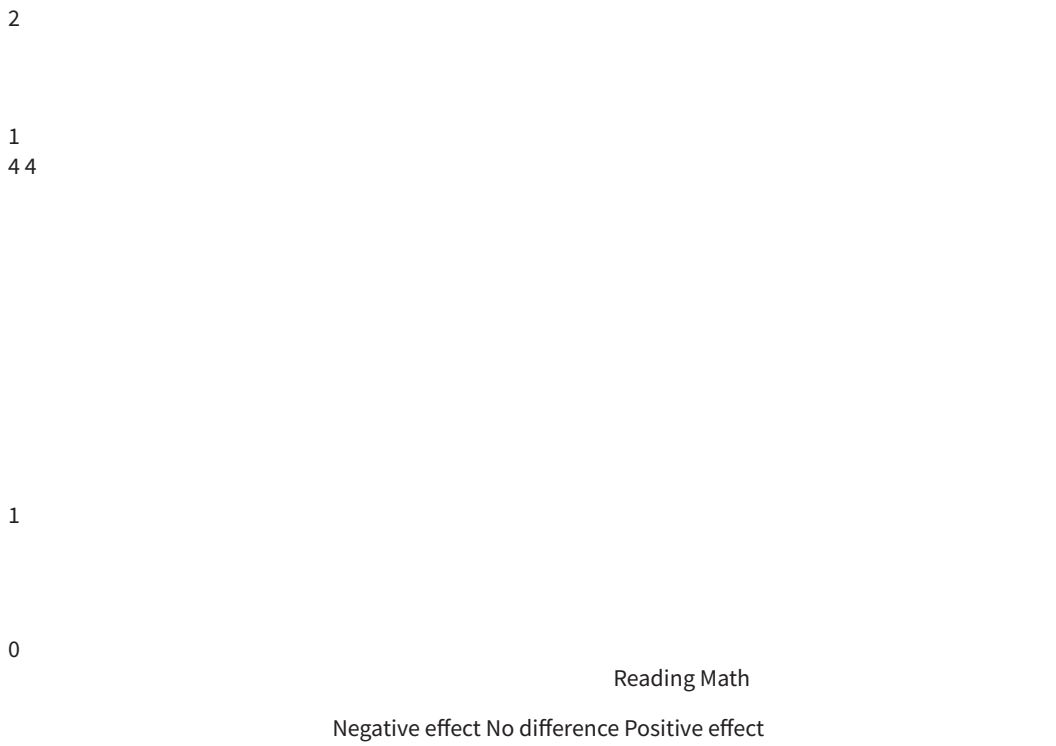

Notes: Positive effects are statistically significant at p < .10 or better and count +1. No difference findings are not statistically significant and count 0. Negative effects are statistically significant at p < .10 or better and count –1.

Sources: Abdulkadiroglu, Pathak, and Walters 2018; Anderson and Wolf 2017; Bitler et al. 2014; Egalite, Stallings, and Porter 2020; Figlio and Karbownik 2016; Mills and Wolf 2019; Waddington and Berends 2018; Webber et al. 2019; Wolf et al. 2013.

claims. I merely separate them out from the experiments to assess if research design matters significantly in determining whether private school choice programs benefit student achievement.

Research design does appear to matter somewhat when interpreting the results from school choice achievement studies (table 3). The sixteen experimental evaluations of the reading effects of choice programs (ten studies conducted through 2012 and six studies conducted after 2012) produce a vote-count net score of +5. The experimental vote count in reading is +5 when evaluating the studies completed through 2012 and 0 when evaluating the studies completed after 2012. The eight quasi-experimental studies (five studies conducted through 2012 and three studies completed after 2012) produce a slightly lower net score of +3. The math findings from experimental school choice evaluations generate a net score of +4, while the quasi-experimental findings score +1. The private school choice achievement results are somewhat more positive if drawn from experimental rather than quasi-experimental studies, but the differences are not dramatic.

Table 3. Vote-counting analysis of scores from various subgroups of studies on the participant achievement effects of private school choice programs in the United States

					Through 2012			*Post-2012*
Group	*Positive*	*Null*	*Negative*	*Net score*	*Positive*	*Null*	*Negative*	*Net score*
Experimental reading	5	5	0	+5	2	2	2	0
Quasi-experimental reading	3	2	0	+3	1	1	1	0
Experimental math	6	4	0	+6	0	4	2	−2
Quasi-experimental math	2	3	0	+2	1	0	2	−1
Totals	**16**	**14**	**0**	**+16**	**4**	**7**	**7**	**~~−3~~**

Notes: Positive findings are statistically significant at p < .10 or better and count +1. Null findings are not statistically significant and count 0. Negative findings are statistically significant at p < .10 or better and count −1.

All seven findings of statistically significant negative effects of private school choice rely upon state accountability tests as their achievement measure. State accountability tests are closely aligned with the curriculum taught in a state's public schools. Private schools often distinguish themselves from public schools in part by using a curriculum that teaches certain topics at different grades than the public school model. Jonathan Mills and I, in our evaluation of the Louisiana Scholarship Program, find that its negative effects on achievement are smaller when students are administered tests less aligned with the public school curriculum and larger when administered tests that are more aligned with it.[117] Some portion of the negative achievement effects reported in recent school voucher studies is likely due to state accountability tests favoring public school students.

Other recent summaries of the achievement effects of private school choice programs conclude, like this review, that the results have been mixed but tilt slightly positive.[118] Danish Shakeel, Kaitlin Anderson, and I conducted a statistical meta-analysis of the nineteen experimental evaluations of the achievement impacts of private school choice programs around the globe. In a subgroup analysis restricted to studies of US programs, we report that the average effect of a choice program on reading scores in the final year of evaluation is +.04 standard deviations, a trivial effect that barely misses statistical significance at $p < .05$. The average impact of experimentally evaluated choice programs on math outcomes is slightly larger, +.07 standard deviations, and is statistically significant with 95 percent confidence. A second formal meta-analysis similarly concludes that the achievement effects of private school voucher programs are positive: small, but somewhat larger in experimental than in nonexperimental studies.[119]

Reviews of the private school choice literature tend to be highly selective if they are limited to a certain discipline. The research base on school choice is decidedly interdisciplinary, with substantial contributions from political scientists, statisticians, sociologists, education researchers, and economists. Economist Roland Fryer includes only seven of the twenty experimental school voucher studies that existed when he published his 2017 global

Table 4. Participant attainment effects of private school choice programs in the United States

Study	*Study type*	*Location*	*Study year*	*Outcome*	*Overall findings*

Wolf, Witte, and Kisida QED Milwaukee 2019 BA Null or +3 percentage points Enrolled +4 to 6 percentage points

Erickson, Mills, and Wolf Experimental Louisiana 2019 Enrolled Null

Cheng, Chingos, and Peterson Experimental New York 2019 BA +6 to 8 percentage points, subgroups

Chingos, Monarrez, and Kuehn QED Florida 2019 BA +1 to 2 percentage points Enrolled +6 percentage points

Chingos Experimental D.C. 2018 Enrolled Null

Chingos and Peterson Experimental New York 2015 BA +2 to 3 percentage points, subgroups

Enrolled +5 to 6 percentage points, subgroups

Cowen et al. QED Milwaukee 2013 Diploma +4 to 6 percentage points Wolf et al. Experimental D.C. 2013

Diploma +21 percentage points Warren QED Milwaukee 2011 Diploma +12 percentage points

Notes: "Study year" refers to year of publication; QED stands for quasi-experimental design. A null finding is one that was not statistically significant at p < .10 or better. "BA" designates the outcome of award of a bachelor's degree from a four-year college or university. "Enrolled" designates the outcome of ever being enrolled in a four-year college or university within the timeframe of the evaluation. "Diploma" designates the outcome of graduating from high school. Overall findings are taken from the authors' preferred statistical model. Findings that are positive and statistically significant appear with no shading, while those that are null appear with light shading and those that are negative and statistically significant appear with dark shading.

review.[120] By restricting their review to voucher evaluations in "the Economics Literature," Dennis Epple, Richard Romano, and Miguel Urquiola exclude over half of the empirical studies of school choice achievement effects completed prior to 2017.[121] The authors conclude: "Many studies find insignificant effects of vouchers on educational outcomes; however, multiple positive findings support continued exploration."[122]

Attainment

Fewer studies have focused on the effects of US private school choice programs on student levels of educational attainment as opposed to educational achievement.[123] Attainment measures the duration of a student's attachment to the educational process, generally designated by milestones such as receiving a high school diploma, enrolling in college, or obtaining a college degree.

The empirical findings regarding the effects of school choice programs on educational attainment are decidedly positive (table 4). Of the twelve results from nine different studies, nine find that access to private schooling through a choice program generates a statistically significant increase in the likelihood of realizing one of the educational attainment benchmarks. The remaining three results indicate that school choice has no significant effect on attainment.

Three early studies examine the effect of school choice on high school graduation. John Robert Warren reports that the rate at which students in the Milwaukee voucher program graduated from high school is 12 percentage points higher than the graduation rate for students in Milwaukee Public Schools.[124] In a later study with the advantage of student-level data, Joshua Cowen and his colleagues confirm that the Milwaukee program has a positive effect on the likelihood of receiving a high school diploma of 4 to 6 percentage points, depending on the statistical model used.[125] My colleagues and I conducted the first experimental assessment of the impact of school

choice on educational attainment, finding that the DC Opportunity Scholarship Program boosts the likelihood of receiving a high school diploma by 21 percentage points for program participants.[126]

Five subsequent studies evaluate the effect of private school choice programs on student enrollment rates in a four-year college or university. Three of the findings are of significant positive effects of choice programs on enrollment rates in New York City of +5 to 6 percentage points for key subgroups;[127] in Florida of +6 percentage points for all participants;[128] and in Milwaukee of +4 to 6 percentage points for all participants.[129] Since the kinds of disadvantaged students eligible for private school choice programs tend to enroll in college at low rates, these seemingly modest percentage point gains equate to increases of 20 to 50 percent in the likelihood of college enrollment. Two other studies report no significant impacts of school choice on college enrollments in Washington, DC,[130] and Louisiana.[131]

Four studies have tracked large enough student samples for long enough to determine the effect of private school choice on the ultimate attainment prize: earning a bachelor's degree. Matthew Chingos and Paul Peterson find that African Americans and children of US-born mothers in New York City obtain bachelor's degrees at rates that are 2 to 3 percentage points higher if they win a school voucher lottery.[132] Chingos and his colleagues report that participants in the Florida Tax Credit Scholarship Program attain bachelor's degrees at rates that are 1 to 2 percentage points higher than matched comparison students.[133] Albert Cheng and his colleagues reanalyze the New York City data, finding that African American students without the markers of being "truly disadvantaged" attain bachelor's degrees at rates that are 6 to 8 percentage points higher than control group students.[134] My colleagues and I report that our larger sample of students who experienced the Milwaukee school choice program in elementary school demonstrate a significantly higher likelihood of attaining bachelor's degrees.[135] The smaller sample of students who enrolled in the program in high school, however, show no significant gains in degree attainment. As with the college enrollment findings, *these positive effects of school choice represent large increases in the likelihood of degree attainment of 20 to 50 percent because the proportions of students in the samples who completed college were so small*.

The existing body of research indicates that private school choice programs have more consistently positive effects on the longer-term outcome of student educational attainment than on the shorter-term outcomes of reading and math achievement. That pattern of an

achievement-attainment disconnect in private school choice effects is consistent with the broader set of results for all forms of school choice.[136] It is possible that parents select private schools based more on aspects of the school's environment and student support systems that subsequently promote educational attainment and less on elements that promote test score gains. More research on the achievement-attainment divide in school choice outcomes is desperately needed.

Civic Values

Finally, schools are expected to prepare young Americans for their civic responsibilities in our democratic republic. Several commentators claim that government-run public schools are much better equipped than private schools to shape the civic values of students.[137] Jonah Edelman and Randi Weingarten go further, declaring that private school choice programs "undermine our democracy."[138]

Civic values can be categorized as political tolerance, political participation, civic knowledge and skills, and voluntarism and social capital.[139] In an earlier vote-counting meta-analysis, I systematically reviewed the thirty-six findings from twenty-one empirical studies of the effect of private schooling in general, or private school choice programs in particular, on these vital civic outcomes.[140] I found that twenty-one results favored private schooling, thirteen are null, and only two findings indicated that government-run public schools outperform private schools in instilling civic values in students. Here I update that vote counting meta-analysis by adding thirteen new studies containing fifty new empirical findings regarding private schooling and civic values.

The research record is clear. Students who attend private schools demonstrate higher levels of civic outcomes (figure 8). Private schooling is positively associated with subsequent civic values for fifty of the eighty-six statistical findings, with thirty-three of them findings of no significant difference and the remaining three results favoring government-run public schools. Counting the votes, private schooling scores +47 regarding boosting civic outcomes.

These thirty-four studies use various methods to identify an actual private schooling effect, controlling for observable and, in some cases, unobservable student and parental factors that influence student selection into private schools that also might correlate with subsequent civic outcomes. Twenty-seven of the findings come from especially rigorous studies that use random assignment, instrumental variables, or reliable student matching methods to ensure that student selection is not biasing the results. When we limit the review to just these more sophisticated studies, the pattern is similar (figure 9). Only one finding indicates a public school advantage, while fourteen results indicate a private school advantage regarding instilling vital civic values in students, with twelve findings suggesting no significant differences between the two groups. With a 14–1 score and a +13 vote-count, private schooling again clearly beats government-run public schooling at generating the outcomes necessary to support a vibrant democracy.

Figure 8. All findings on private schooling or school choice and civic outcomes60

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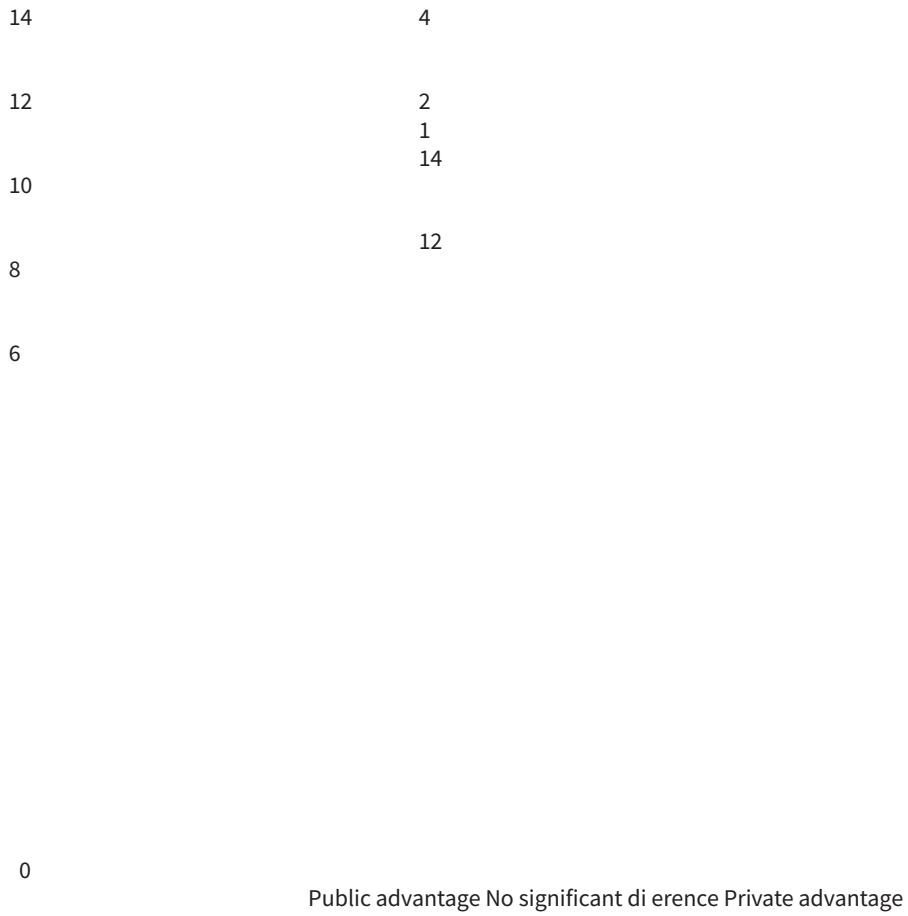
Sources: Abernathy 2005; Bettinger and Slonim 2006; Campbell 2001a, 2001b, 2008; Carlson, Chingos, and Campbell 2017; Cheng 2014; Cheng and Sikkink 2019; Coleman and Hoffer 1987; DeAngelis and Wolf 2019; Dee 2005; Dill 2009; Fleming, Mitchell, and McNally 2014; Godwin et al. 1999; Godwin, Ausbrook, and Martinez 2001; Godwin and Kemerer 2002; Greene 1998; Greene, Giammo, and Mellow 1999; Greene, Mellow, and Giammo 1999; Hill and Dulk 2013; Howell et al. 2006; Kingsbury 2018; Mills et al. 2016; Niemi, Hepburn, and Chapman 2000; Peterson and Campbell 2001; Peterson, Campbell, and West 2001; Schneider et al. 1997; Sikkink 2012; Smith and Sikkink 1999; West, Peterson, and Campbell 2001; Wolf et al. 1998; Wolf et al. 2001; Wolf, Peterson, and West 2001.

In sum, the participant effects of private school choice programs in the United States range mostly from neutral to positive. The effects of choice programs on student achievement were overwhelmingly positive initially but have been mixed recently. Through 2012, experimental and quasi-experimental evaluations of private school choice programs reported sixteen findings of positive, statistically significant program effects on test score outcomes and no findings of negative effects. After 2012, school choice studies have reported four findings of positive but seven cases of negative test score effects of choice. The earlier findings were more positive in math than in reading, while the later findings were more positive in reading than in math. Private school choice programs have demonstrated more consistent positive effects on student educational attainment in the form of high school graduation, college enrollment, or college completion. Six of eight studies of the attainment effects of school choice have reported positive findings that represent increases of 20 to 50 percent in the likelihood of students reaching key attainment benchmarks. Finally, an extensive empirical literature demonstrates that private schooling is at least as effective as public schooling, and often more so, in inculcating civic values in students. The effects of private school choice on the complete set of participant outcomes are, at worst, a wash.

Figure 9. Findings on private school choice and civic outcomes from methodologically rigorous studies



Sources: Bettinger and Slonim 2006; Campbell 2008; Carlson, Chingos, and Campbell 2017; DeAngelis and Wolf 2019; Dee 2005; Fleming 2014; Fleming, Mitchell, and McNally 2014; Howell et al. 2006; Mills et al. 2016; Peterson and Campbell 2001; Peterson, Campbell, and West 2001; Schneider et al. 1997; West, Peterson, and Campbell 2001; Wolf, Peterson, and West 2001.

Systemic Effects of School Choice

Economic theories of market-based reforms predict that increased competition from alternative education providers will pressure public schools to improve their performance to retain students and their associated funding.[141] Opponents of school choice predict that the loss of students and resources due to the launch or expansion of private school choice programs will send fragile public schools into an organizational death spiral.[142] Which side is right?

Fiscal Effects

The effects of private school choice programs on school district finances depend heavily on program design and context. The relationship between the value of the average private school choice award and public per-pupil spending in a given jurisdiction depends heavily on the type of choice program. ESA programs serve students with disabilities, a category of student who is substantially more costly to serve in the public school system than the average student. The unweighted average award across the five ESA programs in 2019 was

$8,887, and the unweighted average percentage of per-pupil public school expenditures (PPPSE)[143] that represented was 104 percent. Similar figures, weighted for differences in student enrollments across the programs, were an average award amount of $11,034 and an average PPPSE of 130 percent, since the two largest ESA programs, those in Arizona and Florida, provide awards of 166 and 115 percent of PPPSE, respectively, to participating students with disabilities.

The twelve voucher programs restricted to students with disabilities provided a weighted average award of $8,895, which was an average of 85 percent of PPPSE. The three town tuitioning programs in Maine, New Hampshire, and Vermont provided a weighted average award of $11,927, which still was only an average 74 percent of PPPSE in these three high spending states. The thirteen means-tested voucher programs awarded vouchers worth a weighted average of $5,656, almost identical to the unweighted average of $5,610 across the programs. The weighted average percentage of PPPSE for these programs was 52 percent, with a low of 14 percent in Maryland and a high of 95 percent in Florida. Except for those two outlier cases, the weighted PPPSE for the remaining eleven means-tested voucher programs all were in the range of 35 to 69 percent. The twenty-three tax-credit scholarship programs provided awards worth a weighted average of $3,852 and a weighted average percentage of PPPSE of just 40 percent.

In sum, most private school choice programs serving *students with disabilities* provide about the same amount of funding, on a per-pupil basis, that *regular-education students receive* in traditional public schools. Most choice programs serving low-income students provide vouchers or scholarships worth one- to two-thirds as much as their local public per-pupil spending.

Most private school choice programs are designed so that all or some of the state government contribution to a choice student's education is captured by the voucher or scholarship, but none of the local or national funding travels with the student to their private school of choice.[144] Localities usually provide 40 to 60 percent of per-pupil funding in school districts through taxation. Those funds remain in the school district when a student leaves for any reason, including in order to use a private school voucher or scholarship. If the per-pupil fixed costs in the school district are lower than the amount of local revenue that remains when a student exercises school choice, then public school districts benefit financially from private school choice.

Benjamin Scafidi estimates that 35 to 40 percent of public school district per-pupil expenditures are made on fixed costs such as capital, debt interest, district and school administration, building operations and maintenance, and transportation.[145] His estimates are derived empirically from cases in which public school districts experienced exogenous shocks, such as the closure of a major industrial plant, which led to a sharp change in student enrollments. District expenditures in these categories remained consistent in the

wake of that shock, demonstrating that they are fixed and unchanging, while expenditures in all other categories of school expenses changed with the swift enrollment shift, demonstrating that they are marginal costs.

As a general rule of thumb, any public school district in which more than 35 to 40 percent of per-pupil funding comes from local sources will benefit fiscally when students exit the district to participate in a school choice program. That includes most districts in the United States. Moreover, choice programs limited to students with disabilities are certain to help the accounting ledger of local public school districts. Federal law requires districts to provide adequate services to all their students diagnosed with disabilities, but districts are not fully compensated for these extra costs by federal and state funding supplements.[146]

As a result of these basic facts about school choice and school district finance, empirical studies have determined that most public school districts experience a fiscal benefit from private school choice programs. The reduction in marginal costs due to student exits to private schools exceeds the reduction in state and federal funding amounts associated with those lost enrollments.[147] The school district loses funds from state and local revenue streams based on enrollment counts, but they also are relieved of the responsibility to educate that child. The marginal cost of that obligation is higher than the foregone funds, so the districts' fiscal health improves even if its total revenue amount declines.

States generally benefit, fiscally, by the launch and growth of private school choice programs. Given the modest ceilings on the maximum value of vouchers, tax-credit scholarships, and ESAs, more money is spent on the same student in the public school sector than in a private school choice program. Susan Aud determines that twelve of the early private school choice programs saved a total of $440 million due to their operations from 1990 to 2006.[148] Jeff Spaulding conservatively estimates that the ten oldest private school voucher programs saved their respective states a cumulative total of $1.7 billion from 1990–91 through 2010–11.[149] Martin Lueken similarly calculates that the twenty-one tax-credit scholarship programs operating from 1999–2000 through 2013–14 saved their states a cumulative $3.4 billion, amounting to an average savings of $3,000 per scholarship student.[150]

Competitive Effects

What happens to the students who do not participate in school choice programs, those proverbially "left behind" in public schools? The research record indicates overwhelmingly that private school choice programs have either positive or null competitive effects on the achievement of students in affected public schools (table 6). Twenty-seven studies examine the competitive effects of private school choice programs, with twenty of them concluding that student achievement consistently increases for students who remain in public schools, five reporting that the effects are sensitive to the measure of competition used but range

Table 5. Competitive effects of private school choice programs in the United States

Study	*Program type*	*Study year*	*Summary of findings*
Florida (11)			
Bowen and Trivitt	Gray, Merrifield, and Adzima Greene and Forster	Voucher	Positive
Chakrabarti		Voucher	Positive
Rouse, Hannaway, and Goldhaber Forster			Positive
Figlio and Rouse		Voucher	Positive
West and Peterson		Voucher	Positive
Greene and Winters		2014	Positive
Greene		2013 2013 2008a 2006 2006	Positive
Greene and Winters		2004	
Figlio, Hart, and Karbownik		2001b 2008 2020 2014	Positive
Figlio and Hart			Positive
Milwaukee (6)			Null to positive Positive
Mader		2010	Positive
Greene and Marsh		2009 2008 2007 2003 2002	Null to positive
Chakrabarti			
Carnoy et al.		2016	
Hoxby		2011	Positive
Greene and Forster		2008b	Positive
Ohio (3)			Null to positive
Figlio and Karbownik		2016	
Carr		2002	Null to positive Positive
Forster		Null	
San Antonio, Texas (2)		Positive	
		Positive	
Greene and Winters	Voucher	2007	Null
Indiana (1)			
Egalite	Voucher	2014	Null to positive
Louisiana (1)			
Egalite and Mills	Voucher	2019	Positive
Maine (1)			
Hammons	Town-tuitioning	2002	Positive
Vermont (1)			
Hammons	Town-tuitioning	2002	Positive

from null to positive, and two finding consistently null effects. *No empirical study of the competitive effects of private school choice programs concludes that the effects are negative*.

Eleven studies examine the competitive effects of Florida's voucher and tax-credit scholarship programs. Fourteen social scientists contributed to the competitive effects research base

regarding private school choice programs in the Sunshine State. Ten of the eleven studies conclude that school choice in Florida consistently improves the achievement of students in affected public schools. Only one study finds no significant effects of private school choice

competition on public school achievement in Florida.[151]

In Milwaukee, four of six studies determine that the Milwaukee Parental Choice Program boosts student achievement in public schools through competitive pressure. The other two studies find that the competitive effects range from null to positive. Every private school choice program studied has demonstrated at least some finding of a positive competitive effect, except for the DC Opportunity Scholarship Program.[152] The DC program was unique in its design. Initially, the public school district was held harmless financially from the loss of students to the program. Since losing students to school choice cost it nothing, there was no incentive for the district to improve its performance.

The positive competitive effects of the launch or expansion of private school choice programs on system-wide educational outcomes is the most consistent finding in the entire field of school choice research. Most of the effects are modest in size, averaging around +0.10 standard deviations, and are most clear the first year after a program launches or expands, but the competitive effects of private school choice programs are consistently positive, and remarkably so.

Policy Trade-Offs and Recommendations

The empirical research on school choice supports the continued launch and expansion of such programs across the United States. The achievement effects of choice programs have been mixed, especially in recent studies, but the research base tilts decidedly positive regarding other crucial outcomes. Access to private schooling through choice programs consistently increases the likelihood of students attaining key educational benchmarks, including high school graduation, college enrollment, and college completion. Private schools generate civic outcomes that are at least as good, and often better, than those of government-run public schools. Private school choice programs save states money. Competition from school choice pressures public schools to improve their performance. Giving parents more educational options promotes freedom and empowerment.

Students who are disadvantaged in terms of their family income, race, or disability are more likely to be eligible for, and interested in, private school choice than their advantaged peers. Within the category of eligible and interested students, the somewhat advantaged members of that disadvantaged class are more likely to participate in a private school choice program, initially and persistently. Some voucher evaluations have concluded that these advantaged among-the-disadvantaged, rather than the truly disadvantaged, most clearly benefit academically from private school choice.[153] Choice programs appear to attract the families that need them and benefit from them most. That is how markets are supposed to work.

As private school choice programs spread, what form should they take? Many questions surrounding these programs are matters of design. Goals of equity, effectiveness, efficiency, and freedom are advanced through setting various school choice program parameters, especially

the regulations governing the admission and testing of participating students and the value of the voucher, scholarship, or ESA that students receive. Many of those parameters involve trading one policy goal for another.

A Social Justice Model for Private School Choice

Policymakers keen to ensure that the most disadvantaged students receive priority in accessing private school choice are inclined to restrict choice programs to low-income students and require participating private schools to admit choice students based on random lotteries, eschewing the application of any admission standards.[154] While such design features advance equity goals, they also have downsides. Means-tested private school choice programs are less popular among the public than programs that are available to all students.[155] As a result, private school choice programs targeted narrowly to low-income students, such as the Milwaukee Parental Choice Program and the DC Opportunity Scholarship Program, have struggled to remain politically viable, especially when Democrats come to power.[156] Private school choice programs with broader income eligibility, such as the Indiana Choice Scholarship Program and the McKay Scholarships for Students with Disabilities Program, have benefited from a tamer political existence as a result.

Justice would seem to demand that private school vouchers, scholarships, and ESAs be funded at the same level spent on similar students in local public schools. The needs of the students should justify the spending amounts, not the type of school that they attend. School choice supporters who advocate for weighted student funding, also known as "backpack" funding, that follows a child to whatever school their parent chooses for them are calling for such sector-blind equality in school funding.[157] Though appealing in theory, equal funding of K–12 students regardless of school type has two related disadvantages. First, doing so eliminates the efficiency advantage and therefore the fiscal benefits of private school choice programs to taxpayers. Second and relatedly, equal funding of students in private and public schools is a tough sell politically.

Regulations on private schools, many of them inspired by equity goals, appear to have the undesirable effect of limiting private school participation in programs to less-effective schools desperate for students. David Stuit and Sy Doan estimate that changing the average private school choice program from a relatively low regulatory burden to a relatively high one reduces the proportion of private schools that participate from 62 to 53 percent.[158] Yujie Sude, Corey DeAngelis, and I find that private schools with quality markers, such as higher tuition rates and higher scores on GreatSchools, are especially sensitive to regulatory burdens when deciding whether to participate in a choice program.[159]

Recent research has examined specific school choice regulations that tend to dissuade private schools from participating in school choice initiatives. Survey experiments conducted with private school leaders in Florida[160] and both New York and California[161] find that these leaders are significantly less likely to say that they "definitely would" participate in a private school voucher

program if they would be prohibited from applying their school's admissions standards to the choice students. Some of the results suggest that higher-quality private schools are especially reluctant to join choice programs if they cannot apply admissions standards. Private school leaders also are less likely to say that they "definitely would" participate in a private school choice program if they would be required to administer the state accountability test to their choice students, while the requirement to administer a norm-referenced test has no effect on their willingness to participate.[162] Anna Egalite and her colleagues, in their qualitative research on the North Carolina Opportunity Scholarship Program, similarly find that leaders of participating private schools are comfortable administering a norm-referenced test of their choosing to their voucher students but that a mandate to use the state accountability test tends to be a deal breaker.[163]

One interpretation of these results is that leaders of private schools carefully guard their organizational autonomy. Private schools are private for a reason. By operating in the private sector, school personnel have greater leverage than they would in the public sector to create the kind of school they think is best for their students. A prohibition against applying a school's admission standards, which are intended to identify students who are a good fit for the school, is an infringement on a private school's ability to establish and maintain a distinctive and cohesive school culture.[164]

Tests drive curricula. Many private schools choose to deliver a curriculum that is decidedly different, in both content and sequencing, from the state curriculum standards taught in government-run public schools. Private school leaders likely view a requirement to administer the state test as a surrender of their ability to choose their schools' curricula, a government regulation that is highly unpopular among private school leaders.[165] Egalite and her colleagues quote an anonymous private school leader in North Carolina as stating:

> We wouldn't participate if we were told . . . what tests to use. We would just have to pull out of it. And I'll be very specific about that, there is that kind of looming concern that eventually it will become . . . [the state public school test] and it's not necessarily our curriculum, and it doesn't sync up with our curriculum.[166]

Of course, if private school leaders object to the government regulations placed on them by private school choice programs, they are free not to participate in them. That is the trade-off. Highly regulated choice programs will provide fewer high-quality and distinctive schooling choices for parents than will their lightly regulated cousins.

A More Market-Driven Model for School Choice

A more lightly regulated model for school choice programs, with a few strategic government regulations, could accomplish some of the social justice goals of choice while enhancing effectiveness and empowerment goals.

More private school choice programs should be available to middle-income families. The fact that middle-income students have left the private sector in droves over the past thirty years[167] demonstrates that such families are caught in a private school "donut hole," with insufficient income to self-finance private school tuition but too much income to qualify for most means-tested choice programs. The Indiana Choice Scholarship Program has an attractive eligibility ceiling of 200 percent of the federal lunch program cutoff, which is 185 percent of the poverty line. As a result, families of four with incomes as high as $92,870 were eligible for the program during 2018–19. Students with family incomes at or below the federal lunch program ceiling receive a full voucher worth 90 percent of the state contribution to per-pupil spending, which the private school must honor as the full cost of educating the child. Students with incomes above the lunch program ceiling but who are still eligible for the choice program receive smaller vouchers, worth 50 percent of the state contribution, and the private school can require them to "top up" the voucher with their own funds.[168] To serve social justice goals, private schools participating in choice programs with such generous income ceilings might be required to set aside a certain number or percentage of voucher slots specifically for voucher students who qualify for the federal lunch program.[169]

A more market-driven model of private school choice would rely heavily on parents as instruments of private school accountability. According to James Q. Wilson, "We have only vague notions as to what constitutes an educated child or an adequate shelter. But we can learn rather easily whether we have satisfied people, for the essence of a market is the opportunity it affords clients to vote with their feet."[170] In our current environment of enrollment and financial challenges facing private schools, parents wielding school vouchers or scholarships have substantial influence over the fate of private schools of choice. If enough voucher students are attracted to and remain in a participating private school, it can remain open. If too few students choose a participating private school or too many leave, then the private school faces the prospect of closure. Such a process of "creative destruction"[171] played out in the Milwaukee Parental Choice Program from 2006 through 2011, where thirty-six participating private schools were forced to close their doors due to low student demand.[172] Private schools with lower test scores were significantly more likely to close due to low demand than were private schools with higher test scores. Parents of school choosers can be forceful instruments of school accountability.

Parental choices need to be informed, of course. A market-driven model of school choice should require that private schools test students who are using vouchers or scholarships, using whatever reputable test the school views as most aligned to its curriculum, whether it is a state criterion–referenced test or a nationally normed test. A student's score on the

state accountability test provides parents with flawed and misleading information about the effectiveness of a school in educating their child if the curriculum taught to the student diverges markedly from the content of the test. That is one important reason that many private schools resist participating in choice programs that mandate the administration of the state test.

A final way to generate a more vibrant school choice market is to lure more high-quality private schools into participating in choice programs by increasing the value of the voucher, scholarship, or ESA. Vouchers and ESAs tend to be worth half of what the government spends on similar students in traditional public schools, and tax-credit scholarships average substantially less than that. A decade ago, a $5,000 annual school voucher covered the tuition charged at many religious schools, which tend to be set at 30 to 40 percent below the average cost of educating their students.[173] As many of those low-tuition religious schools closed, especially Catholic ones, the remaining population of private schools is averaging tuition costs above what most private school choice programs cover.[174] Although most tax-credit scholarship and ESA programs allow parents to add funds to cover residual costs, most voucher programs require that participating private schools accept the voucher as the full cost of educating the child. Higher maximum voucher amounts equivalent to about 75 percent of the amount spent on comparable students in local public schools would ensure that adequate resources are supporting students in their private schools of choice, and likely would encourage more high-quality private schools to serve them. Some voucher programs recently have indexed the maximum voucher amount to rise proportionally with increases in per-pupil spending in government-run public schools. As voucher amounts increase, however, the amount of savings to the state from their use will decrease, sacrificing efficiency goals for those of equity and effectiveness. Trade-offs are inevitable.

Private school choice programs for students with disabilities should be enacted wherever means-tested programs currently operate. Application data signal that parents of students with disabilities are especially eager to avail themselves of private school alternatives for their children. Usage data signal that means-tested choice programs tend to lack the resources necessary to retain the enrollments of many students with disabilities. Just as students with disabilities are guaranteed an IEP to serve them effectively in public schools, these students should be offered their own customized private school choice program with design features and award amounts that are adequate to serve them effectively.

The Future of Private School Choice

There are reasons to be both pessimistic and optimistic about the future of private school choice. The main reasons for pessimism are the financial viability of private schools and the fact that the remaining states that lack any private school choice programs present challenging political conditions. As discussed in this essay, many private schools are struggling to remain financially viable in their competition against the free (to recipients) service provided by public schools. The COVID-19 crisis has devastated the finances of these

already fragile institutions, as it has removed two major sources of revenue for most private schools: in-person fundraisers and subsidies from church collection baskets. An analysis of the effect of the Great Recession of 2008–9 on private school enrollments in US cities found that it reduced them by one-third.[175] Since only about half of private school students live in cities, and recessions tend to affect nonurban areas less severely, we might reasonably expect the COVID-19 crisis to cut private school enrollments by 20 percent in the coming school year,

resulting in the permanent closure of perhaps a thousand private schools. The private schools that close are likely to be the lower-tuition ones that disproportionately serve students in choice programs. Private school choice is less appealing to parents if few distinctive private schools are available within a reasonable commuting distance.

A second reason to question whether private school choice will spread significantly in the future is that the political low-hanging fruit has been picked. Places that were early adopters of private school vouchers—Milwaukee, Cleveland, Florida—combined state Republican leadership seeking solutions to problems in urban education with African American political and social leaders who supported extending private school choice to disenfranchised communities.[176] A second wave of private school choice programs, after 2005, tended to be enacted by Republicans who were in full control of statehouses and both houses of their legislatures, or were responses to natural disasters (as in Louisiana and Puerto Rico), or targeted students with disabilities. The remaining twenty-four states that lack any private school choice program tend to lack strong Republican leadership on the issue (e.g., Massachusetts, New York) or tend to be more rural than the states that have adopted school choice (e.g., Texas, Idaho), or both (e.g., Oregon, Kentucky). Future growth in private school choice enrollments likely will need to come primarily from expansions of existing programs or enactment of new programs in states that already operate private school choice initiatives. Bringing new states into the private school choice column will be difficult.

If private school choice programs do not expand in the coming years, then the private school sector will both shrink and become far less diverse, in both types of schools and in the students it serves, than it is today. Without growth in the number of private school choice programs that serve both low- and middle-income students, income diversity will vanish from the private school sector, and it will come to resemble the caricature of elitism that opponents have painted it as being throughout history. Many private schools want to serve a student population that is diverse in socioeconomic background. Given the exigencies of our day, without expanded private school choice, they will not be able to do so.

Fortunately, there are reasons to be hopeful about the future of private school choice. In the thirty years since the launch of the first urban school voucher initiative in Milwaukee, choice programs have evolved to be large and innovative. Almost every private school choice program is oversubscribed, signaling excess demand by families for support in accessing private schools for their children. ESAs offer families great flexibility in customizing the resources that their children can access in support of their education, a feature that likely has

been especially useful during the recent COVID pandemic. Public support for private school choice is at an all-time high, especially among people of color and millennials.[177] No private school choice program has been cancelled by legislators once it has begun enrolling students. Choice programs grow a constituency of adults and children who are heavily vested in their continuation and who will demonstrate such support to policymakers.[178]

Community activist Virginia Walden Ford was a major force behind the enactment of the District of Columbia Opportunity Scholarship Program in 2004. Recently her story was depicted in the Hollywood film *Miss Virginia*. Ms. Ford followed up the success of the movie by publishing her memoirs.[179] The title of that book, as much as anything I have written here, forecasts the future of private school voucher, tax-credit scholarship, and ESA programs. It is *School Choice: A Legacy to Keep*.

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self-government. Measures can involve voting in the previous election, contacting a political representative, or participating in a political rally. Civic knowledge and skills are a set of understandings and abilities widely viewed as conducive to self-government. The list includes basic facts regarding the US constitutional system, including knowledge of the separate branches of government, federalism, and how a bill becomes a law. The set also can include self-reports regarding a person's ability to write a persuasive letter or to give a public speech. Voluntarism and social capital are measures of one's involvement in activities that benefit the broader community and the depth of one's community attachments. Voluntarism usually is measured by questions such as "Did you volunteer more than an hour of your time, without pay, in any service activity in the past month?" or "How many hours of volunteer service did you provide in the past year?" Social capital is based on indicators of shared social norms, networks, and cooperation.

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