

Will School Vouchers Benefit Low-Income Families? Assessing the Evidence

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Introduction

School vouchers are an important issue in Texas this legislative session. One is not likely however, to see the word "voucher" in any official legislative language. Instead, terms like "scholarships" and "grants" now often are used as synonyms, but the structure of the proposed programs remains the same. Recently, state-level policymakers and advocates have proposed a grant program to give public school families public funds to send their children to private schools. Proponents argue that school vouchers will save the state money, generate healthy competition between traditional and private schools, and remedy unequal access to high quality schools for low-income families. Opponents argue that voucher policies will draw away muchneeded funds from public schools and are just the first step in a broader effort to privatize public schools. These are tense, polarizing debates that too often are based on ideology rather than evidence. In this brief, we focus on the research, providing rigorous evidence to assess the claims that are being made. Specifically, we focus on the equity claim, that school vouchers will help poor and minority families in low-performing schools to access higher-quality education.

In the following brief we assess the evidence of this claim. First, we provide a brief history of school vouchers in the United States. Next we describe the different types of voucher programs that exist, and the variation amongst them. Third, we review rigorous research on who uses vouchers and their effects on low-income and minority students. Here, we focus on research that examines the effects of publicly funded voucher programs, such as the types of programs

¹ Belfield, C., & Levin, H. M. (2005). Vouchers and public policy: When ideology trumps evidence. *American Journal of Education*, 111(4), 548-567. doi:10.1086/431183

that are being proposed for Texas. Finally, based on this evidence, we offer policy recommendations for policymakers considering such reforms.

We find that the empirical research shows that the effects of school vouchers on student outcomes generally are small or insignificant, and do not have the ability to close the racial achievement gap or generate large gains in student outcomes. In addition, even voucher programs that target low-income families or those attending failing schools have serious access and attrition challenges, calling into question the equity claims of voucher proponents. We conclude that the research on voucher effectiveness shows mixed results—some studies show small positive effects on student achievement, and some show no effects. Overall these results do not align with the strong claims of voucher proponents. In addition, the take-up and attrition patterns of voucher recipients suggest that such policies might not benefit the most disadvantaged students.

What is the history of voucher policies in the U.S.?

The concept of using public dollars to fund private education in the United States dates back to 18th century economics theory. In modern times however, the term voucher typically is traced to Milton Friedman's call for restructuring public education in 1955.² Friedman argued that while education was a public good and thus required public funding, government did not have to actually provide educational services. Instead, the government could give parents money in the form of a voucher to be used at any school, with minimal oversight and regulation. He argued that this would generate competition among providers, greater efficiency, and better educational opportunities for all students.

The first publicly funded voucher program was launched in 1972 in the Alum Rock School District of San Jose, California. The Alum Rock voucher "experiment" was a five-year program funded by the US Office of Economic Opportunity which provided low-income students with public funding to exit their neighborhood school.³ Although the program was intended to include private schools, political resistance resulted in a decentralized, open-enrollment program that was limited to the public school system.

Voucher policies that included private schools were proposed in many states in the 1980s. Yet, it was not until 1989 that a publicly funded voucher program was enacted that included private, non-parochial schools.4 This program was limited to students residing in the Milwaukee city limits and, similar to the Alum Rock program, was targeted at low-income students. In 1995 the State of Ohio established a pilot voucher program to enable families in Ohio school districts under federally ordered supervision to attend participating private or parochial schools. At the time, the Cleveland City School District was the only district that met this criteria. Plaintiffs

² Friedman, M. (1955). The role of government in education. In R. A. Solow (Ed.) *Economics and the public interest*. New Brunswick, NJ: Rutgers College.

Friedman, M. (1962). Capitalism and freedom. Chicago, IL: University of Chicago Press.

Wortman, P., Reichardt, C., & St. Pierre, R.G. (1978). The first year of the education voucher demonstration. *Evaluation Quarterly*,

^{2(2), 193-214. &}lt;sup>4</sup> Witte, J. (1995). The Milwaukee voucher experiment. *Educational Evaluation and Policy Analysis*, 20(4), 229-251;Ryan, J. & Heise, M. (2002). The political economy of school choice. Yale Law School Journal, 111, 2043-2136.

challenged the legitimacy of Cleveland's program under the First Amendment's Establishment Clause, and the U.S. Supreme Court ultimately ruled in *Zelman v. Simmons-Harris* (2002) that the voucher program was constitutional because it permitted individuals to exercise choice among secular and religious options.⁵

As we will elaborate below, voucher programs have expanded in type and scope. One of the key claims that advocates make for vouchers is that they give parents of low-income students the same choices that affluent parents already have through their ability to either pay for private school or purchase a home in the attendance zone of a high performing school. ⁶ Advocates also argue that private school vouchers improve the responsiveness of public schools. As Chubb and Moe have argued in their seminal book, *Politics, Markets, and America's Schools,* in a market-based system, schools would no longer be "system-preserving" and subject to bureaucratic political control; instead, schools would be democratically controlled and "held accountable from below" by parents and students. Furthermore, this arrangement, which gives parents the option to "vote with their feet," will generate healthy competitive pressures on other public schools to improve.

The early 21st century saw the decline of vouchers, with dozens of failed voucher proposals, perhaps due to the rise of charter schools, which drew bipartisan support. In the past few years, however, new coalitional alliances for vouchers have generated a resurgence of school voucher policies in states and cities across the U.S. Although voters historically have rejected voucher plans by large margins, they seem to be gaining momentum in key states, including Texas. This has left policymakers in states considering these reforms with the task of evaluating not only the structure and scope of voucher plans, but legitimate concerns regarding equity in access to and benefit from such programs. In the following section, we examine the range of voucher policies that exist in the U.S.

What types of voucher policies exist in the U.S.?

A total of 24 states, including Washington, DC, now have passed laws designed to provide some type of public funding for private school choice. Many of these policies however, do not take the form of traditional "vouchers" in terms of direct public funding to schools and families. Below we describe the three main variants of contemporary voucher programs: traditional vouchers, neo vouchers, and tax credit vouchers.

Traditional Vouchers

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⁶ Howell, W. G., & Peterson, P. E. (2006). *The education gap: Vouchers and urban schools*. Washington, DC: Brookings Institution Press.

⁷ Chubb, J. E. & Moe, T. M. (1990a) *Politics, markets, and America's schools.* Washington, DC: Brookings Institution Press, p. 216 and p. 225.

Chubb, J. E. & Moe, T. M. (1990b). *America's public schools: Choice is a panacea. The Brookings Review*, Summer, 477-485.
⁸ Forman, J. (2007). The rise and fall of school youchers: A story of religion, race, and politics. *UCLA Law Review*, 54, 547-604.

⁹ Ryan, J. E. & Heise, M. (2002). The political economy of school choice. Yale Law Journal, 111, 2043-2136.

¹⁰ Forman, J. (2007). The rise and fall of school vouchers: A story of religion, race, and politics. *UCLA Law Review*, *54*, 547-604; d'Entremont, C. & Huerta, L. A. (2007). Irreconcilable differences? Education vouchers and the suburban response. *Educational Policy*, *21*(1), 40-72. doi: 10.1177/0895904806297950

In a traditional voucher program, state education tax dollars flow directly to private schools. These dollars are typically capped at some percentage below the full student funding designated for the student's home institution. A total of 12 states, as well as the cities of Cleveland, Milwaukee, and Washington DC have such programs. Five of these states have designated traditional voucher funds exclusively to special education students (Florida, Georgia, Mississippi, Oklahoma, and Utah), and two others are in limited operation in townships without local public schools (Maine and Vermont). In this brief, we focus on the four states (and Washington, DC) operating the more "traditional" voucher programs that provide public funding directly to private schools. 12

Neo Vouchers

Another type of voucher program, termed "neo-vouchers," allows corporations or individuals to make donations to third party organizations, which then fund private school scholarships for students. In exchange, the donors receive tax credits and deductions to be claimed toward their yearly individual or corporate state tax liability. These third party organizations have many names, including "Scholarship Granting Organizations," "Scholarship Funding Organizations," and "Scholarship Tuitioning Organizations." They all, however, serve the same basic function: to collect and maintain donations, and are in charge of appropriating funds to pay for private school tuition and related expenses for students. Different states have different rules about the student selection process, but the ultimate decision regarding which students receive the voucher is made by the third party entity.

Tax Credit Vouchers

With a tax credit voucher, families pay for private school services up front. A percentage of these expenses may then be applied to a family's state tax liability, or can be refunded at the end of the fiscal year. It is argued that tax deduction plans largely advantage those in higher tax brackets rather than low-income parents who often cannot take advantage of a full tax credit.¹³

Next, we turn to the evidence on school vouchers.

Evaluating the Evidence

Because the policy proposals in Texas have centered on direct-funded "traditional" voucher programs, we limit our review of the research to the traditional voucher programs currently operating state-wide in Indiana, Wisconsin, Ohio, and Louisiana, and city-wide in Cleveland, Milwaukee, and Washington DC.

With the exception of Cleveland, each of these programs requires families to meet some criteria, either a means test or attendance at a "low-performing" public school. Means tests across these states consist of income caps that range between 185% and 400% of federal

¹¹ Colorado's Douglas County also has a voucher program, but currently is on legal hold.

We excluded evidence on North Carolina, which legally is on hold and has been the subject of little empirical research.

¹³ Kaufman, M. J. & Kaufman, S. R. (2009). *Education, law, policy, and practice: Cases and materials* (2nd ed.). New York, NY: Aspen Publishers.

poverty (\$44,123–\$95,401). The programs in Washington, DC, Wisconsin, and Milwaukee are means-tested only, while Indiana and Louisiana require both conditions be met; in other words, students must be designated as low-income and attend a "low performing" public school. Ohio runs two programs, one for low-income students and one for students assigned to low-performing schools.

Our review of the evidence is guided by three key questions focused on the key arguments of proponents: 1) that vouchers will liberate the most disadvantaged students from low-performing schools; 2) that vouchers will lead to improved outcomes, for low-performing students; and 3) that through competition, vouchers will generate system-wide improvements even for non-participating students.

1) Do "targeted" vouchers (for low-income students) really help the most disadvantaged students?

By design, most of the programs we review are limited to low-income students, and therefore do provide private school choice options for students who are "disadvantaged" as measured by income poverty. It is important to note, however, that most of these "targeted" programs also allow families to receive vouchers if their families are above the poverty line, but are below a certain threshold of poverty (i.e., 200%), and many provide voucher funding on a sliding scale based on parental income. Three programs (Indiana, one of Ohio's statewide programs, and Cleveland) have no income restrictions at all, although in Cleveland, low-income students must be given priority.¹⁴

Critics of vouchers charge that even those programs that are limited to low-income students often do not serve the students who are most disadvantaged (i.e., the lowest achieving or with special needs), and instead go to students who are relatively more advantaged on other dimensions (i.e., higher achieving, from families with relatively higher incomes, two-parent households, or with higher levels of education). Critics also are concerned that private schools might "cream-skim" by actively recruiting those students who are relatively more advantaged.

To better understand the population that means-tested vouchers actually serve, we focus primarily on evidence on the utilization of vouchers within the income-restricted programs. The bulk of the evidence on this question comes from the Milwaukee and Washington DC programs. On balance, the research finds mixed evidence: in Milwaukee, applicants tend to be higher achieving than non-applicants, but not higher income. ¹⁵ In Washington DC, applicants were compared across years: researchers found that in more recent years (compared to earlier

¹⁴ It should be noted that even if family incomes have risen, most voucher programs restricted explicitly to low-income families do allow students to remain for the sake of enrollment continuity. Thus, there is the potential for students to receive vouchers even if family income has risen above the threshold (poverty line or lunch eligibility cutoff) required for initial eligibility.

¹⁵ Chakrabarti, R. (2013). Do vouchers lead to sorting under random private school selection? Evidence from the Milwaukee voucher program. *Economics of Education Review*, *34*, 191-218.

years) applicants' families are better educated and more likely to be employed, but less likely to be married.¹⁶

More disparities become apparent when comparing those who apply for a voucher and those who actually use the voucher that they are offered. These comparisons find that students who are offered but do not use their voucher are, when compared to voucher "users," disproportionately lower income, 17 18 students whose parents are unemployed or part-time workers, and students from single-parent households. 19 Students who are awarded but do not use vouchers also tend to be disproportionately special needs students, 20 English language learners, 21 and are from families of color. 22 Research has also found that in Cleveland, which has a non-means tested program that permits students to enroll regardless of income, voucher utilizers are higher-income when compared to students who receive but do not utilize a voucher. 23

There is little data, however, about why voucher utilization rates among the relatively more disadvantaged students are lower. Some researchers have speculated that the most disadvantaged families fail to use vouchers at similar rates because some programs require parents to provide additional financial resources that may prevent their participation in the programs, such as fees for uniforms and books, and/or payment of some tuition above the scholarship amount.²⁴ (See Table 1.) In addition, many programs require parents to provide their own transportation, which can be costly. In Washington DC, for example, researchers found that most of the applicants lived in the lowest income neighborhoods where there are fewer participating private schools, which meant some students had to travel long distances.²⁵ Indeed, 7.8% of voucher non-utilizers in DC reported transit as being a prime reason for not using the voucher that they were awarded.²⁶ Other reasons parents reported included a lack of space at their preferred private school (30.7%), the absence of special needs services (21.6%), that their child was admitted to a preferred public charter school (16.3%), and that their child did

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¹⁶ Feldman, J., Lucas-McLean, J., Gutmann, B., Dynarski, M., Betts, J., & Silvergerg, M. (2014). *Evaluation of the DC Opportunity Scholarship Program*. Washington DC: United States Department of Education.

¹⁷ Chakrabarti, R. (2013). Do vouchers lead to sorting under random private school selection? Evidence from the Milwaukee voucher program. *Economics of Education Review*, 34, 191-218; Wisconsin State Legislative Audit Bureau. (2012). *Test score data for pupils in the Milwaukee parental choice program*. Madison, WI: Author.

¹⁸ Chakrabarti, R. (2013). Do vouchers lead to sorting under random private school selection? Evidence from the Milwaukee

voucher program. *Economics of Education Review*, 34, 191-218.

19 Feldman, J., Lucas-McLean, J., Gutmann, B., Dynarski, M., Betts, J., & Silvergerg, M. (2014). *Evaluation of the DC opportunity scholarship program*. Washington DC: United States Department of Education

scholarship program. Washington DC: United States Department of Education.

20 Wisconsin State Legislative Audit Bureau. (2012). Test score data for pupils in the Milwaukee parental choice program. Madison, WI: Author.

²¹ Ibid.

²² Plucker, J., Muller, P., Hansen, J., Ravert, R., & Make, M. (2006). *Evaluation of the Cleveland scholarship and tutoring program: Technical report 1998-2004*. Bloomington, IN: Indiana University Center for Evaluation & Educational Policy.

Paul, K., Legan, N., & Metcalf, K. (2007). Differential entry into a voucher program: A Longitudinal examination of families who apply to and enroll in the Cleveland scholarship and tutoring program. *Education and Urban Society*, *39*(2), 223-243; Metcalf, K., West, S.D., Legan, N., Paul, K. & Boone, W.J. (2003). *Evaluation of the Cleveland scholarship and tutoring program: student characteristics and academic achievement technical report 1998-2002*. Bloomington, IN: Indiana Center for Evaluation & Educational Policy.

²⁴ Ibid.

²⁵ Feldman, J., Lucas-McLean, J., Gutmann, B., Dynarski, M., Betts, J., & Silvergerg, M. (2014). *Evaluation of the DC opportunity scholarship program*. Washington DC: United States Department of Education.
²⁶ Ibid.

not pass an admissions test (4.2%).²⁷ Taken together, this evidence suggests, as Paul, Legan, and Metcalf (2007) write, that "although the initial application and award process seems to afford the voucher opportunity to families for whom the programs are targeted, the use of the vouchers is much less well distributed" (p. 242, emphasis added).

There also is evidence from Milwaukee to suggest that rates of attrition can be high, particularly amonast the most disadvantaged students.²⁸ These disparities were not found however in the initial years of the (non-means tested) Cleveland program, 29 and attrition overall has been found to be low in Indiana (also not means-tested).30 Studies have found that students who leave voucher programs and transfer back into the public system tend to be disproportionately lowincome³¹ (though one study found no difference on this dimension³²), low-performing,³³, and with special needs. 34 Studies also found that students who exit voucher programs are disproportionately Black³⁵ and male.³⁶ As Carlson, Cowen, and Fleming (2013) concluded of the Milwaukee program, the students leaving voucher programs tend to be "among the most disadvantaged among multiple dimensions" (p. 183).

These findings suggest that the more disadvantaged students face barriers staying enrolled in private schools through a voucher program: for these students, some researchers argue, using a voucher to attend private school is a "transitory condition, not necessarily a long-term alternative to public school."37

2) Do school voucher programs improve outcomes for low-income students?

Overall, despite far-reaching claims about the impact of school vouchers on student achievement, researchers have found small effects for students participating in voucher programs. Reviews of the literature show either small or no effects of vouchers on student

²⁷ Ibid.

²⁸ Cowen, J. M., Fleming, D. J., Witte, J. F., & Wolf, P. J. (2012). Going public: Who leaves a large, longstanding and widely available urban voucher program? American Educational Research Journal, 49(4), 231-256.

²⁹ Metcalf, K., West, S.D., Legan, N., Paul, K. & Boone, W.J. (2003). Evaluation of the Cleveland scholarship and tutoring program: student characteristics and academic achievement technical report 1998-2002. Bloomington, IN: Indiana Center for Evaluation & Educational Policy.

³⁰ Indiana Department of Education. (2015). Choice scholarship program annual report. Bloomington, IN: Author.

Carlson, D., Cowen, J. & Fleming, D. (2013). Life after vouchers: What happens to students who leave private schools for the traditional public sector? Educational Evaluation and Policy Analysis, 35(2), 179-199; Plucker, J., Muller, P., Hansen, J., Ravert, R., & Make, M. (2006) Evaluation of the Cleveland scholarship and tutoring program: Technical report 1998-2004. Bloomington, IN: Indiana University Center for Evaluation & Educational Policy.

Cowen, J. M., Fleming, D. J., Witte, J. F., & Wolf, P. J. (2012). Going public: Who leaves a large, longstanding and widely available urban voucher program? American Educational Research Journal, 49(4), 231-256.

³⁴ Carlson, D., Cowen, J. & Fleming, D. (2013). Life after vouchers: What happens to students who leave private schools for the traditional public sector? Educational Evaluation and Policy Analysis, 35(2), 179-199; Cowen, J. M., Fleming, D. J., Witte, J. F., & Wolf, P. J. (2012). Going public: Who leaves a large, longstanding and widely available urban voucher program? *American* Educational Research Journal, <u>49</u>(4), 231-256.

35 Cowen, J. M., Fleming, D. J., Witte, J. F., & Wolf, P. J. (2012). Going public: Who leaves a large, longstanding and widely

available urban voucher program? American Educational Research Journal, 49(4), 231-256.

Plucker, J., Muller, P., Hansen, J., Ravert, R., & Make, M. (2006) Evaluation of the Cleveland scholarship and tutoring program: Technical report 1998-2004. Bloomington, IN: Indiana University Center for Evaluation & Educational Policy.

Cowen, J. M., Fleming, D. J., Witte, J. F., & Wolf, P. J. (2012). Going public: Who leaves a large, longstanding and widely available urban voucher program? American Educational Research Journal, 49(4), 231-256.

achievement.³⁸ Most of these studies have used randomized control trials, which allow the researchers to make causal claims about the impact of using the voucher on student achievement.

First, we examine whether the schools voucher recipients attend are of higher quality. Studies examining the quality of voucher schools along a number of dimensions have mixed results. When comparing teacher quality in Cleveland's private and public schools, one study found that private schools had similar class sizes and similar rates of experienced teachers as public schools, but the public-school teachers had higher levels of certified teachers and teachers with master's degrees or beyond. In addition, studies also indicated that many of the students in the voucher program were less likely to have access to key services, such as English as Second Language (ESL) programs, learning supports, special education services, and counselors, than students who were not part of the program.

Now we examine whether the use of a voucher improves student outcomes. Studies examining publicly funded voucher programs have found mixed results. Results from a state-mandated study in Milwaukee show that students who participated in the Milwaukee Parent Choice Program (MPCP) and attended private schools demonstrated larger growth in reading and math achievement compared to the Milwaukee Public Schools (MPS) students, suggesting positive effects of school vouchers. 41 Using a different method, a study by the state's Legislative Audit Bureau found significant results only in growth rates for reading, not math. 42 In Cleveland, a state-sponsored evaluation found that by the end of sixth grade, controlling for differences in minority status, student mobility, and prior achievement, there were no statistically significant differences in overall achievement scores between students who had used a scholarship their entire academic career (since kindergarten) and students in comparison groups.⁴³ Only after seven years of voucher use did participants have statistically significant higher achievement in terms of test scores than their counterparts in public schools. Similarly, all four of the congressionally mandated U.S. Department of Education (USED) studies that analyzed the DC voucher program concluded that the program did not significantly improve reading or math achievement. 44 The USED studies also found that the voucher program had no effect on student satisfaction, motivation, engagement, or student views on school safety.

³⁸ Belfield, C., & Levin, H. M. (2005). Vouchers and public policy: When ideology trumps evidence. *American Journal of Education*, 111(4), 548-567. doi:10.1086/431183

Rouse, C. E., & Barrow, L. (2009). School vouchers and student achievement: Recent evidence, remaining questions. *Annual Review of Economics*, 1(1), 17-42

Review of Economics, 1(1), 17-42.

39 Peterson, P., Howell, W., Wolf, P. J., & Campbell, D. (2003). School vouchers: Results from randomized experiments. In Editor's name (Ed.), *The economics of school choice* (pp. 107-144). Chicago, IL: University of Chicago Press.

⁴⁰ Feldman, J., Lucas-McLean, J., Gutmann, B., Dynarski, M., Betts, J., & Silvergerg, M. (2014). *Evaluation of the DC opportunity scholarship program*. Washington DC: United States Department of Education.

⁴¹ Witte, J. F., Wolf, P. J., Cowen, J. M., Fleming, D. J., & Lucas-McLean, J. (2008). *MPCP longitudinal educational growth study Baseline report: Report of the School Choice Demonstration Project.* Fayetteville, AR: University of Arkansas. not sure what this was so I deleted it – if it is a citation it is missing most of its information; Also see Rouse, C. E. (1998). Private school vouchers and student achievement: An evaluation of the Milwaukee Parental Choice Program. *Quarterly Journal of Economics.* 113(2), 553-602. ⁴² Wisconsin State Legislative Audit Bureau. (2012) *Test score data for pupils in the Milwaukee parental choice program.* Madison, WI: Author.

⁴³ Plucker, J., Muller, P., Hansen, J., Ravert, R., & Make, M. (2006) *Evaluation of the Cleveland scholarship and tutoring program: Technical report 1998-2004*. Bloomington, IN: Indiana University Center for Evaluation & Educational Policy.

⁴⁴ Feldman, J., Lucas-McLean, J., Gutmann, B., Dynarski, M., Betts, J., & Silvergerg, M. (2014). *Evaluation of the DC opportunity scholarship Ppogram*. Washington DC: United States Department of Education; Wolf, P., Gutmann, B., Puma, M., Kisida, B., Rizzo,

In light of these small or null overall effects, policymakers and researchers have argued that perhaps the effects of participating in a voucher program might be greatest for the most disadvantaged students. In an IES-sponsored evaluation of the DC Opportunity Scholarship Program, researchers found no evidence after four years that participation in the voucher program improved student achievement, either overall or for subgroups (e.g., those from "schools in need of improvement"). In other words, students who were offered (or used) the voucher showed statistically similar math and reading test scores as their peers who were not offered the voucher. They did find however, that participating in a voucher increased graduation rates for students from low-performing schools.

A shortcoming of any empirical analysis of a voucher policy is the inability to vary key characteristics of the voucher program (e.g., amount of voucher). Studies that have simulated outcomes for students using models that test outcomes under different voucher schemes also have found that economically disadvantaged students are not better off under voucher programs, and that even under the most favorable hypothetical conditions, vouchers would fail to equalize educational opportunities across social groups.⁴⁶

Overall, studies examining the effect of vouchers on student achievement have had mixed, ambiguous, or contentious results. There certainly is no convincing evidence to suggest that vouchers will have large effects on student achievement or that they will close the achievement gap between federally categorized racial groups.⁴⁷

3) Do vouchers generate system-wide improvements?

In addition to directly affecting those students who use a voucher, advocates have argued that vouchers also may have indirect effects on students who remain enrolled in public schools. If students exit underperforming public schools using a voucher, this might put pressure on public schools to improve in order to attract or retain students. There is limited research however, that specifically examined the competitive effects from traditional voucher programs. Two economists systematically reviewed the research on whether private school competition generates positive effects. They discovered that while many studies did find that private school competition generated positive effects on traditional public schools, the actual size of the effect

L., Eissa, N., Carr, M., & Silvergerg, M. (2010). *Evaluation of the D.C. opportunity scholarship program: Final report.* Washington DC: United States Department of Education; Wolf, P., Gutmann, B., Puma, M., Kisida, B., Rizzo, L., Eissa, N., & Silvergerg, M. (2009). *Evaluation of the DC opportunity scholarship program: Impacts after three years.* Washington DC: United States Department of Education; Wolf, P., Gutmann, B., Puma, M., Kisida, B., Rizzo, L., Eissa, N., & Silvergerg, M. (2008). *Evaluation of the DC*

opportunity scholarship program: Impacts after two years. Washington DC: United States Department of Education; Wolf, P., Gutmann, B., Puma, M., Rizzo, L., Eissa, N., & Silvergerg, M. (2007). Evaluation of the DC opportunity scholarship program: Impacts after one year. Washington DC: United States Department of Education.

⁴⁵ Wolf, P., Gutmann, B., Puma, M., Kisida, B., Rizzo, L., Eissa, N., Carr, M., & Silvergerg, M. (2010). *Evaluation of the D.C. opportunity scholarship program: Final report.* Washington DC: United States Department of Education

 ⁴⁶ Manski, C. F. (1992). Educational "choice" (vouchers) and social mobility. *Economics of Education Review*, *11*(4), 351-69.
 47 Belfield, C., & Levin, H. (2002). The effects of competition between schools on educational outcomes: A review for the United States. *Review of Educational Research*, *72*(2), 279-341. doi: 10.1086/431183
 48 Friedman M. (1992). Confeligement for each conference of the conf

⁴⁸ Friedman, M. (1962). Capitalism and freedom. Chicago, IL: University of Chicago Press.

⁴⁹ Belfield, C., & Levin, H. (2002). The effects of competition between schools on educational outcomes: A review for the United States. *Review of Educational Research*, 72(2), 279-341. doi: 10.1086/431183

was guite modest. The results have been inconsistent. Most studies found either small positive or no effects of private school competition on public school students' educational outcomes.⁵⁰

Therefore, while we do find some small positive effects of private-school competition on traditional public schools, these effects are small and not leading to large, system-level changes. In addition, there is a lack of rigorous research testing the effects of competition in publicly funded voucher programs. The nature of competition might be different when a voucher is introduced.⁵¹ We did find two studies that examined competitive effects resulting from the Milwaukee voucher program; both studies found small to moderate positive effects. 52 It is important to remember that because studies of competitive effects do not use experiments and random assignment to treatment (e.g., competition), such studies are less able to make clear causal claims.

School voucher policies also may generate system-wide effects by either increasing or decreasing segregation as parents have the ability to choose schools outside of their neighborhood public schools. Many large urban districts in Texas are already highly segregated by race and income.⁵³ Here we review research that might lend insight into how school voucher policies might ameliorate or exacerbate these patterns of segregation.

We found that there was very little peer-reviewed research regarding the impact of vouchers on segregation in the United States. In the U.S. context, some peer-reviewed studies found that school voucher policies might lead to sorting by race and ability. For example, using voting data on a proposed universal voucher initiative in California, white parents were found to be more likely to support vouchers when their children attend school with nonwhite children, an effect absent from nonwhite households. 54 This suggests that white parents might use school vouchers as a segregation or separation strategy, perhaps exiting more integrated public schools. A study examining whether competition results in student sorting by race however, found no demographic changes resulting from the introduction of a voucher policy in Milwaukee. 55 One study using modeling techniques found that school vouchers increased the extent of student sorting, while simultaneously benefiting high-ability students relative to low-

⁵⁰ Belfield, C., & Levin, H. (2002). The effects of competition between schools on educational outcomes: A review for the United States. Review of Educational Research, 72(2), 279-341. doi: 10.1086/431183; Goldhaber, D. D. & Eide, E. R. (2003). Methodological thoughts on measuring the impact of private sector competition on the educational marketplace. Educational Evaluation and Policy Analysis, 25(2), 217-232; McEwan, P. J. (2000). The potential impact of large-scale voucher programs. Review of Educational Research, 70(2), 103-149; Rouse, C. E., & Barrow, L. (2009). School vouchers and student achievement: Recent evidence and remaining questions. Annual Review of Economics, 1(1), 17-42. doi:10.1146/annurev.economics.050708.143354

⁵¹ Greene, J. & Marsh, R. (2009). Effect of Milwaukee's parental choice program on student achievement in Milwaukee public schools (Report No. 11). Fayetteville, AR. The School Choice Demonstration Project.
⁵² Greene, J. & Marsh, R. (2009). Effect of Milwaukee's parental choice program on student achievement in Milwaukee public

schools (Report No. 11) Fayetteville, AR. The School Choice Demonstration Project.

Chakrabarti, R. (2008). Can increasing private school participation and monetary loss in a voucher program affect public school performance? Evidence from Milwaukee. *Journal of Public Economics*, *92*(5-6), 1371-1393.
⁵³ Perrone, C. & Bencivengo, B. (2014, January 8). Texas leaders, educators and courts grapple with segregated public schools.

Dallas Morning News.

Brunner, E. J., Imazeki, J., Ross, S. L. (2010). Universal vouchers and racial and ethnic segregation. The Review of Economics and Statistics. 92(4), 912-927. doi:10.1162/REST_a_00037
⁵⁵ Chakrabarti, R. (2008). Can increasing private school participation and monetary loss in a voucher program affect public school

performance? Evidence from Milwaukee. Journal of Public Economics, 92(5-6), 1371-1393.

ability students. ⁵⁶ Furthermore, the evidence provided earlier about differential access, enrollment, and attrition from voucher programs also is suggestive of segregation resulting from vouchers.

Policy Recommendations

Overall, we find that the evidence on publicly funded voucher programs, such as those proposed for Texas, does not support the claim that school vouchers will help disadvantaged children. There are serious access challenges, particularly for students who are economically disadvantaged, racially/ethnically diverse and English Language Learners. There also are differential rates of attrition from voucher programs, suggesting that for the most disadvantaged students, voucher programs do not provide a long-term alternative to public schooling. Furthermore, the empirical evidence on student outcomes under such plans is at best, mixed, and generally does not show positive effects for subgroups.

There also are concerns about the system-wide impact of vouchers. While some studies do show positive competitive effects from private schools, which lead to improvements in traditional public schools in the area, most of these effects are quite small. The studies also had methodological challenges that prevent clean causal links from being made. Most importantly, few of these studies have examined competitive effects resulting from publicly funded voucher programs, the type of program proposed for Texas. Furthermore, there are other systemic effects that should concern us, such as the preliminary evidence that school vouchers generate sorting and segregation effects. Given the already high rates of economic and racial segregation in Texas, we also note that while the research considering the effects vouchers have on segregation is thin, there is evidence to suggest that vouchers lead to increased sorting of students by socioeconomic status and student achievement. Indeed, the voucher program in Louisiana has come under scrutiny by the Department of Justice, which has required the collection of evidence on the impacts these programs might have on segregation in key school districts.

⁵⁶ Epple, D. & Romano, R. E. (1998). Competition between private and public schools, vouchers, and peer-group effects. *The American Economic Review*, 88(1), 33-62.

⁵⁷ Walsh, M. (2013). La. protests federal voucher challenge. *Education Week*, *33*(5), 4; Egalite, A. J., & Mills, J. N. (2014). The Louisiana scholarship program. *Education Next*, *14*(1), 66-69; Dunn, J., & Derthick, M. (2014). Bayou Backdown? *Education Next*, *14*(3), 7; Welner, K. (2013). Much ado about politics (and much ignored about research evidence). Boulder, Colorado: National Center for Education Policy. Retrieved from http://nepc.colorado.edu/newsletter/2013/11/much-ado; Robelen, E. W. (2008). La. voucher programs borrows from plans around the country. *Education Week*, *27*(42), 7.

Table 1: Traditional Voucher Programs in the U.S.

State	Year Enacted	Target Populations	Voucher Includes Transportation	Means Test*	Prior Public School Enrollment Necessary	Testing Requirements	Value of Voucher	Can Private Schools Charge Families Additional Tuition/Fees?	Parochial Schools Eligibility
District of Columbia	2004	Low and moderate income students	Award may be used for transportation.	Family must be enrolled in SNAP or family income may not exceed 185% of the federal poverty threshold (FPT) (\$44,863).	No. Private school students are also eligible.	Participating private schools must administer national norm-referenced test to voucher participants.	K-8= \$8,256 9-12= \$12,385	Yes	Yes.
Indiana	2011	Low and middle income students; those attending low performing schools	No.	Family income must not exceed 185% of FPT (\$44,123).	Yes, unless the student is entering Kindergarten.	Participating private schools must administer Indiana state student achievement test to all students.	Not to exceed the lesser of tuition and fees, 90% of per pupil funding, or \$4,700 for students in grades 1-8.	Yes	Yes.
Louisiana	2008	Low and moderate income students in low performing schools	No.	Family income must not exceed 250% of FTP (\$60,625).	No. Private school students are also eligible, as long as their assigned public school is rated "C" or lower by the	Participating private schools must administer the Louisiana state student achievement test to all students.	Not to exceed the lesser of tuition, fees, and associated testing costs, or state and	Yes	Yes.

					state.		local per pupil funding.		
North Carolina	2014	Low and moderate income students	No.	Family Income may not exceed 133% of Free or Reduced Price Lunch eligibility threshold (\$41,928).	Yes, unless the student is entering Kindergarten or 1st grade.	Participating private schools must administer national norm-referenced standardized test to voucher participants.	Not to exceed tuition and fees, or \$4,500.	Yes	Yes.
Ohio (Statewide: residing outside of Cleveland)	2005	Students attending low performing schools	No.	Unrestricted, but families under 200% of the FPT have priority (\$48,500).	Yes, unless the student is entering Kindergarten or 1st grade.	Participating private schools must administer the Ohio state student achievement	K-8= \$4,250 9- 12=\$5,000	Yes, but only for families whose income exceeds 200% of the federal poverty	Yes.
Ohio (Statewide)	2013	Low income students	No.	Family income may not exceed 400% of FPT (\$97,000).	No. Private school students are also eligible.	test.	Not to exceed tuition and fees, or \$4,250.	threshold.	Yes
Ohio (Cleveland)	1995	All Cleveland students	May be available through the Cleveland Municipal School District.	Unrestricted. Voucher amount varies by income.	No. Private school students are also eligible.		K-8= \$4,250 9- 12=\$5,700		Yes.

Wisconsin (Milwaukee)	1990	Low and middle income students	No.	Family income may not exceed 300% of FPT (\$72,750). Married couples have an additional \$7,000 before reaching the income cap.	No. Private school students are also eligible.	Participating private schools must administer the Wisconsin state test in grades 4, 8, and 10 for voucher participants.	Not to exceed the lesser of school's per student operating costs or K- 8= \$7,210 9-12= \$7,856	Yes, but only for families whose income exceeds 220% of the federal poverty threshold.	Yes, however students must be able to opt out of religious programs.
Wisconsin (Racine)	2011	Low and middle income students	No.	Family income may not exceed 300% of the federal poverty threshold (\$72,750). Married couples have an additional \$7,000 before reaching the income cap.	No. Private school students are also eligible.		Not to exceed the lesser of school's per student operating costs or K- 8= \$7,210 9-12= \$7,856		
Wisconsin (Statewide: residing outside of Milwaukee and Racine)	2013	Low income students	No.	Family Income may not exceed 185% of the federal poverty threshold (\$44,863). Married couples have an additional \$7,000 before reaching the income cap.	No. Private school students are also eligible.		Not to exceed the lesser of school's per student operating costs or K- 8= \$7,210 9-12= \$7,856		

^{*}Calculations based on a family of four in 2015