

# Keeping Informed about School Vouchers

## **A Review of Major Developments and Research**

July 2011  
Center on Education Policy



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## Introduction

With Republicans controlling a majority of state houses and the U.S. House of Representatives, interest in school vouchers has spiked during the past year at the federal, state, and local levels. Vouchers are payments that parents use to finance private school tuition for their children. Although vouchers can be privately funded, the programs that attract the most attention and controversy provide vouchers paid for with public tax dollars.

In the deal that ended the stalemate over the federal fiscal year 2011 budget, Congress restored funding for the District of Columbia voucher program, which had been discontinued in 2009 by the Obama Administration and the previous Democratic-controlled Congress. Vouchers are also likely to be a hot-button issue during the upcoming reauthorization of the Elementary and Secondary Education Act and the 2012 national elections. Indiana recently enacted a statewide voucher program, and other states are actively considering voucher proposals with strong support from key legislators and governors. The school board in Douglas County, Colorado, adopted a local private school voucher program this spring.

In 2000, the Center on Education Policy (CEP), an independent nonprofit organization, reviewed and summarized the major research on school vouchers in the report *School Vouchers: What We Know and Don't Know and How We Could Learn More*, available at [www.cep-dc.org](http://www.cep-dc.org). Since 2000, much has changed in the voucher landscape. On the legislative front, new voucher programs have been established during the past decade in D.C., Ohio, and New Orleans, in addition to the recently adopted programs in Douglas County and Indiana. Citizens' referenda on vouchers in California, Michigan, and Utah were defeated by sizeable margins. On the judicial front, the U.S. Supreme Court ruled that the longstanding Cleveland voucher program was constitutional, but state Supreme Courts struck down an established voucher program in Florida and a new statewide program in Colorado. On the research front, numerous studies have added to the knowledge base about vouchers, including comprehensive studies examining the longer-term effects of vouchers in Milwaukee, Cleveland, and D.C.

This CEP report provides updated information for policymakers and others about the status of publicly funded voucher programs and the findings of major voucher studies published since 2000. Other types of programs also subsidize private school tuition—including tuition tax credits, specialized vouchers for students with disabilities, “town tuition” programs for remote rural students, and privately funded vouchers—but in order to produce a succinct report focusing on the most controversial form of subsidy, we limited our review to publicly funded voucher programs for general education students.

Part I of this report consists of CEP's own reflections about changes in the voucher landscape over the past decade and our own synthesis of broad findings emerging across the studies reviewed for this report. Part II describes the major publicly funded voucher programs in the U.S. that are currently operating or were discontinued during the past decade, as well as significant court cases and ballot initiatives related to vouchers. Part III summarizes the key findings of major studies of publicly funded voucher programs released since 2000. Part IV presents a few final observations about the complexities of voucher research and suggestions for ensuring that future studies are objective and high-quality.

## Part I. Reflections and Synthesis

Several themes became apparent as we reviewed a decade's worth of key developments and major research concerning vouchers. Below we discuss our reflections on changes in voucher policies, programs, and politics over the past decade and present our synthesis of broad findings on the effects of vouchers from multiple studies reviewed for this report.

### Reflections on the Changing Voucher Landscape

Several notable developments have occurred during the past decade in voucher research, programs, and politics.

**Additional research has demonstrated that vouchers do not have a strong effect on students' academic achievement.**

Since 2000, more evidence has accumulated about the impact of vouchers on student test scores, particularly from longer-term studies of the publicly funded voucher programs in Milwaukee, Cleveland, and D.C. As discussed more in the synthesis of findings below, these studies have generally found no clear advantage in academic achievement for students attending private schools with vouchers.

**The rhetoric used to support voucher programs has shifted, with some proponents giving less emphasis to rationales based on achievement and more emphasis to arguments based on graduation rates, parent satisfaction, and the value of choice in itself.**

Vouchers are controversial and tend to evoke passionate opinions. Strongly held philosophical beliefs may play as much a role in shaping people's views about vouchers as empirical evidence does.

Proponents often maintain that vouchers give low-income children an opportunity to improve their learning by transferring from lower-performing public schools to better-performing private schools—an option already available to families who can afford to pay tuition. Proponents also assert, among other points, that vouchers create an incentive for public schools to improve by fostering competition and can be a more efficient and cost effective way of funding education than providing money to public bureaucracies.

Opponents often contend that vouchers unfairly channel tax dollars to private schools without requiring these schools to abide by the same requirements as public schools in such areas as accountability, testing, or special education. Opponents also assert, among other arguments, that vouchers drain much-needed resources, as well as motivated students and parents, from financially strapped public schools and affect only a small

number of children without providing the comprehensive reforms needed to strengthen the entire public education system.

Past arguments in favor of vouchers often emphasized the academic benefits for participating students, as the following examples indicate:

*These [D.C.] scholarships would allow moms and dads to send their children to schools where they can really learn and succeed.*

—Former Secretary of Education Rod Paige, 2003<sup>1</sup>

*School vouchers are a viable method of allowing all American children access to high quality schools, including private and religious schools. Every parent, not just the wealthy, should be able to obtain the highest quality education for their children.*

—Senator John McCain, 2003<sup>2</sup>

*In addition, eight rigorous studies of six cities . . . have all confirmed that school choice boosts the academic achievement of inner-city and African-American students.*

—Former D.C. Mayor Anthony Williams, 2003<sup>3</sup>

With the publication of more recent evidence showing no clear achievement advantage among students receiving publicly funded vouchers, the rhetoric used to justify vouchers has shifted. Although some voucher advocates continue to maintain that vouchers have been found to improve student achievement, others note that vouchers have not been found to *harm* the achievement of participating students and may increase public school performance through competition. In addition, some voucher advocates are highlighting the positive impacts of vouchers on graduation rates and parent satisfaction and the importance of providing choice as a right in itself. The following examples illustrate some of the current rhetoric of voucher supporters:

*First off, 20 years in, it's hard to argue that the nation's biggest and most established voucher experiment has 'worked' if the measure is whether vouchers lead to higher reading and math scores. Happily, that's never been my preferred metric for structural reforms—both because I think it's the wrong way to study them . . . but, more importantly, because choice-based reform shouldn't be understood as that kind of intervention. Rather, choice-based reform should be embraced as an opportunity for educators to create more focused and effective schools and for reformers to solve problems in smarter ways.*

—Rick Hess, American Enterprise Institute, 2010<sup>4</sup>

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<sup>1</sup><http://www.dcwatch.com/schools/ps030624e.htm>

<sup>2</sup>[http://mccain.senate.gov/public/index.cfm?FuseAction=PressOffice.FloorStatements&ContentRecord\\_id=0204281a-cc35-ec3f-07d4-c3a3c94b086c&Region\\_id=&Issue\\_id=d4aef26f-e058-897e-4b4a-5fd1082aef5](http://mccain.senate.gov/public/index.cfm?FuseAction=PressOffice.FloorStatements&ContentRecord_id=0204281a-cc35-ec3f-07d4-c3a3c94b086c&Region_id=&Issue_id=d4aef26f-e058-897e-4b4a-5fd1082aef5).

<sup>3</sup><http://www.dcwatch.com/schools/ps030624f.htm>

<sup>4</sup>[http://blogs.edweek.org/edweek/rick\\_hess\\_straight\\_up/2010/04/non-effects\\_of\\_milwaukee\\_vouchers\\_whats\\_it\\_mean.html](http://blogs.edweek.org/edweek/rick_hess_straight_up/2010/04/non-effects_of_milwaukee_vouchers_whats_it_mean.html)

*As an advocate of school choice, all I can say is thank heavens for the Milwaukee results. Here's why: If my fellow supporters of charter schools and vouchers can finally be pushed off their obsession with test scores, maybe we can focus on the real reason that school choice is a good idea. Schools differ in what they teach and how they teach it, and parents care deeply about both, regardless of whether test scores rise.*

—Charles Murray, American Enterprise Institute, 2011<sup>5</sup>

*The appeal of school choice centers around a belief that greater choice meets the desires of parents, and improves the quality of education by fostering innovation and competition.*

—School Choice Task Force, Douglas County (Colorado) School District, 2010<sup>6</sup>

Voucher opponents have also seized on recent evidence about the lack of a clear effect on student achievement to buttress their views, as the following example shows.

*In study after study, students utilizing vouchers appear to perform no better than their peers left behind in the public schools. This should raise real questions among taxpayers and others about why Pennsylvania would establish a costly new taxpayer funded program, only accessible to certain individuals and likely not to provide the voucher students with any substantial benefit.*

—Michael J. Crossey, vice president, Pennsylvania State Education Association, 2011<sup>7</sup>

**Voucher programs and proposals are moving beyond just serving low-income families in particular cities to reaching middle-income families in a broader geographic area.**

Most of the earlier voucher programs were targeted on low-income families in large cities or on students attending the lowest-performing public schools in a state. Some of the more recent voucher programs and proposals have a broader reach that includes middle-income families in an entire state or county:

- Indiana's new voucher program is open to families throughout the state with incomes of up to 150% of the maximum income for reduced-price school lunch.
- The Douglas County, Colorado, program is open to families of all income levels.
- A state budget bill recently signed by Wisconsin Governor Scott Walker expands the state-funded voucher program beyond Milwaukee to encompass students in the Racine Unified School District and suburban schools in Milwaukee County. The bill

<sup>5</sup><http://www.nytimes.com/2010/05/05/opinion/05murray.html>

<sup>6</sup><http://schools.dcsdk12.org/education/dept/dept.php?sectiondetailid=187231&>

<sup>7</sup>[http://www.psea.org/uploadedFiles/Newsroom/Testimony/PSEASenateBill1Testimony\\_Feb162011.pdf](http://www.psea.org/uploadedFiles/Newsroom/Testimony/PSEASenateBill1Testimony_Feb162011.pdf)

also lifts the cap on the number of participants and opens up the program to families with incomes of up to 300% of federal poverty guidelines.<sup>8</sup>

In expanding voucher programs to middle- and higher-income families and suburban families, policymakers risk alienating those who support vouchers as a means to improve education for low-income urban students. Former Milwaukee Superintendent Howard Fuller opposed the Wisconsin voucher expansion on these grounds:

*I will continue to fight for vouchers, tax credit scholarships, opportunity scholarship programs, charter schools, home schools, virtual schools—anything that empowers low-income and working-class people to be able to have some of the capacity to choose what those of us with money have. I will never fight for giving people who already have means more resources. Because, in the end, that will disadvantage and squeeze out the possibility of poor parents having some of these options . . . [If] that's the way the movement has to be going forward, it's not something that I can be part of.*

—Howard Fuller, founder Black Alliance for Educational Options<sup>9</sup>

**Many of the newer voucher studies have been conducted or sponsored by organizations that support vouchers.**

When we last reviewed voucher research in 2000, the number of studies was limited. The most notable ones were state-mandated and/or independent evaluations of the Milwaukee, Cleveland, and Florida voucher programs done by university-based researchers. Since that time, numerous additional voucher studies have been published, including those described in part III. (As explained in part III, our review did not include reports that were mainly opinion pieces or theoretical in nature.)

Given the controversy over vouchers, researchers must be especially careful that their own opinions or those of their sponsoring or funding organizations do not compromise the objectivity of their analyses. To determine whether the authors and sponsors of the studies reviewed for this report had taken a clear position for or against vouchers, we researched mission statements, public statements, and other evidence available on the Web. We also researched the positions of the organizations that funded the studies where this information was available.

In many cases, we could not discern the views of these authors or groups based on publicly available information. In several cases, however, we did find clear evidence of a position on vouchers in mission statements or other public information from the sponsors or funders of various studies. In all of the cases where we found such evidence, the organizations supported vouchers. They include the following:

<sup>8</sup><http://www.cbsnews.com/stories/2011/06/26/politics/main20074509.shtml#ixzz1QPws3PGA> and <http://www.jsonline.mobi/more/news/124004679.htm>

<sup>9</sup><http://www.redefinedonline.org/2011/04/howard-fuller-podcasted/>

- Six of the studies described in this report were conducted, sponsored, or cosponsored by the Foundation for Educational Choice, an organization established by economists Milton and Rose D. Friedman “to promote universal school choice as the most effective and equitable way to improve the quality of K-12 education in America.”<sup>10</sup>
- One study was sponsored by School Choice Wisconsin, which “supports expanded educational options for parents through the use of school vouchers, charter schools, and innovative public-private partnerships.”<sup>11</sup>
- The Cato Institute, an organization that promotes individual liberty and free markets, was a cosponsor of one of the studies analyzed, along with the aforementioned Foundation for Educational Choice. Cato’s education research, according to its Web site, is “founded on the principle that parents are best suited to make important decisions regarding the care and education of their children,” and its researchers seek to shift the public debate “toward a future where government-run schools give way to a dynamic, independent system of schools competing to meet the needs of American children.”<sup>12</sup>
- One study was cosponsored by three organizations with pro-voucher positions: the Foundation for Educational Choice; the Foundation for Educational Excellence, which was established by former Florida Governor Jeb Bush and includes school choice as one of its reform goals;<sup>13</sup> and the James Madison Institute, an organization rooted in the ideals of “limited government, economic freedom, federalism, and individual liberty” that has published several pro-voucher opinion pieces.<sup>14</sup>

We did not find concrete statements of opposition to vouchers for any of the authors, sponsors, or funders of the studies included in this report. Although it is likely that some of these researchers or sponsors are indeed opposed to vouchers, or at least are perceived as being anti-voucher, they have not publicized their views.

In general, voucher opponents appear to have been less active in pursuing voucher research in recent years than voucher supporters. Interest among opponents may have diminished as a result of key state court decisions or shifts in the political winds. Additionally, as empirical studies increasingly seemed to find that vouchers had little or no

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<sup>10</sup><http://www.edchoice.org/About-Us/Mission--History.aspx>

<sup>11</sup><http://www.schoolchoicewi.org/about/index.cfm>

<sup>12</sup><http://www.cato.org/education-child-policy>

<sup>13</sup>[http://www.excelined.org/Pages/About Us/Reform Agenda.aspx](http://www.excelined.org/Pages/About%20Us/Reform%20Agenda.aspx) and [http://www.excelined.org/ReformNews/2011/Giving Parents a Choice and Voice in Education .aspx?page=Archives.aspx&Year%3D2011%26month%3D1&pagenum=0](http://www.excelined.org/ReformNews/2011/Giving%20Parents%20a%20Choice%20and%20Voice%20in%20Education.aspx?page=Archives.aspx&Year%3D2011%26month%3D1&pagenum=0)

<sup>14</sup><http://www.jamesmadison.org/about/about.html> and <http://www.jamesmadison.org/wp-content/uploads/pdf/materials/483.pdf>



impact on student achievement, some researchers may have felt that further study was unnecessary. Scholars who wanted to be on the cutting edge of educational research may have turned their attention to other topics, such as public school improvement.

This is not to say that individuals or groups with a pro-voucher or anti-voucher stance cannot produce objective and rigorous research. It does speak to a need for the authors of voucher studies to take great care to avoid bias and for other researchers to give close scrutiny to their work. We also understand that perceptions of objectivity may vary depending on where one stands on the voucher issue. Part IV of this report includes recommendations to help ensure that voucher research is objective and meets high standards.

### **Synthesis of Findings across Voucher Studies**

Efforts to study the impact of vouchers are complicated by various factors. First, each voucher program has its own set of rules governing eligibility for families and schools, selection of voucher recipients and schools, voucher amounts and funding processes, requirements placed on participating private schools, and other characteristics. Differences in program characteristics can affect the conclusions reached by various studies and make it difficult to generalize across studies or know whether a program that produced certain results in one area could be replicated in another. Research outcomes may also vary based on how long a voucher program has been in place. These observations suggest that each study's findings are most accurate in the context of that particular voucher program.

Second, designing a voucher study involves several complex decisions about methodology that can affect conclusions. For example, researchers may use various methods, such as controlling for certain variables, to try to sort out the extent to which an outcome is likely the result of receipt of a voucher rather than of student, family, or school characteristics. Researchers may also make different decisions about such issues as which public school students to use as a control group, whether to track outcomes for the same group of students over time or use different cohorts, how long to study the program to capture long-term effects, or what do to about students who leave voucher schools after a year or two. In this environment, it is not surprising that voucher researchers sometimes criticize each other's methodologies.

Third, even in a well-designed study, it is often not possible to attribute a certain outcome to the receipt of a voucher because so many other factors inside and outside of school can affect educational outcomes.

Even with these caveats in mind, some broad themes became apparent after we reviewed the numerous studies analyzed for this report. Below we have identified a limited number of cross-cutting findings, which we have grouped into two tiers, depending on how conclusive the findings were.

## **Tier 1**

Tier 1 includes one finding that was supported by several studies done by various groups.

<b>Achievement gains for voucher students are similar to those of their public school peers.</b>
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According to several recent studies, gains in achievement are about the same for low-income students receiving vouchers as they are for comparable public school students:

- Students in grades 3-8 who participated in the Milwaukee voucher program had rates of achievement growth over three years that were similar to those of a random sample of Milwaukee public school students with analogous characteristics, according to a comprehensive study by the School Choice Demonstration Project (SCDP) at the University of Arkansas.
- When adjustments were made for students' prior achievement, mobility, and minority status, the overall achievement of students who participated for several years in the Cleveland voucher program did not differ significantly from that of comparable public school students, according to a long-term evaluation by Indiana University researchers.
- A reanalysis of test data from the Cleveland program by researchers at the National Center for the Study of Privatization in Education found no academic advantages for voucher users in Cleveland.
- Low-income students who were awarded private school vouchers through the Washington, D.C. program showed no significant differences in reading and math achievement from a control group of students who did not receive voucher awards, according to a study conducted by researchers from several organizations and universities for the U.S. Department of Education. Although females and higher-achieving students did appear to have higher levels of reading achievement if they received a voucher, the researchers noted that these findings could be due to chance.

While some studies have found limited test score gains for voucher students in certain subject areas or grade levels, these findings are inconsistent among studies, and the gains are either not statistically significant, not clearly caused by vouchers, or not sustained in the long run.

## **Tier 2**

Tier 2 includes four findings that cut across multiple studies but were less conclusive than the tier 1 finding, either because they were supported by fewer studies, could not be clearly attributed to vouchers, or were based on self-reports. These tier 2 findings are from studies sponsored by various organizations, including some with a clear pro-voucher position.

### **Students receiving vouchers graduated from high school at a higher rate than their public school counterparts.**

Studies of Milwaukee and D.C. found higher graduation rates among voucher students than among public school students. These include the SCDP study of the Milwaukee program; another study in Milwaukee by School Choice Wisconsin, a group with a clear position in favor of vouchers; and the U.S. Department of Education study of the D.C. voucher program.

These studies had limitations, however, that may make their findings less than conclusive. In general, researchers were not able to determine whether the higher graduation rates were caused by practices in the voucher schools, and whether families who use vouchers differed from other families in ways that would lead to higher graduation rates. The fact that voucher users have parents who were sufficiently motivated to seek out a voucher suggests that these parents may have a greater tendency than other parents to support and encourage their children to aspire to finish high school and attend college.

In addition, some of the benefits in educational attainment for voucher students found by the SCDP study became less significant or not statistically significant when the researchers controlled for such factors as mother's education, income, two-parent families, and religious attendance. The D.C. findings were based on parents' reports of their children's attainment rather than on data collected from district records.

### **In some cities or states with voucher programs, gains in student achievement were greater in public schools most affected by voucher competition than in other public schools.**

Several voucher studies have examined academic achievement trends in public schools to test advocates' assumption that competition from a voucher program will spur improvements in public education:

- The SCDP study of the Milwaukee voucher program found slightly greater gains in achievement among public school students most affected by voucher competition (as determined by a competition index developed for the study) than among public school students less affected by vouchers.

- An analysis of the Milwaukee program by Federal Reserve economist Rajashri Chakrabarti concluded that test scores improved at a much greater rate in high-poverty schools that were eligible for the voucher program than in a control group of similar schools that were not eligible. This effect emerged only in the second phase of the Milwaukee voucher program, after the program expanded in size, opened up to religious schools, and raised the dollar amounts of the vouchers. An analysis by Harvard economist Caroline Hoxby arrived at a similar conclusion.
- Test scores either improved or stayed the same in the lowest-performing public schools targeted by the Ohio statewide voucher program, according to a study by the Foundation for Educational Choice, a pro-voucher group. This study was limited to data from the first year of the program.

Other studies of the impact of education reforms in Florida, including vouchers, found improvements in test scores in public schools rated as failing, a group that includes schools targeted for vouchers. Other reforms were occurring at the same time in Florida, however, most notably an accountability system that rated schools by letter grades. Although some of these studies sought to tease out the extent to which vouchers in particular contributed to these public school achievement gains, it is difficult, if not impossible to decisively attribute the causes of achievement gains.

This difficulty of sorting out causation applies not only to Florida. In many of the cities or states with voucher programs, a variety of reforms are underway to boost public school achievement, ranging from the strict accountability requirements of the No Child Left Behind Act to the expansion of charter schools. Often the public schools most affected by vouchers are the same ones targeted for intensive interventions due to consistently low performance.

**Parents of children who receive vouchers are generally more satisfied with their child's school.**

In both the SCDP study of Milwaukee and the mandated study of D.C., parents participating in the voucher programs reported high levels of satisfaction with their children's school. The Milwaukee study surveyed both voucher parents and public school parents and found higher levels of satisfaction among the voucher parents, although the public school group also generally gave their schools high marks.

While the D. C. voucher program has had a positive impact on parents' satisfaction with their child's school and their perceptions of the school's safety, the program had no effect on students' school satisfaction or reports on school conditions, according to the U.S. Department of Education study.

Findings about parent satisfaction are, by necessity, based on parents' self-reports. While parent satisfaction with their child's school is a worthy goal, parents who have been given

the opportunity to choose their child's school may be more satisfied than other parents precisely because they chose it, regardless of whether the school offers better instruction or contributes to higher achievement.

**Voucher programs have lowered costs for some taxpayers, although sometimes a portion of the costs has been shifted to other levels of government.**

The Milwaukee voucher program saved the state of Wisconsin nearly \$52 million in fiscal year 2011, according to the SCDP evaluation, because the voucher program had lower per-pupil costs than the costs of educating students in the Milwaukee public schools. These benefits were not shared equally among Wisconsin taxpayers, however. While citizens who paid state sales and income taxes benefitted, property taxpayers in the city of Milwaukee experienced a fiscal penalty. This has occurred because state per pupil aid for voucher students no longer flows to the Milwaukee Public Schools, but the state continues to deduct a portion of the voucher expenses from Milwaukee's state aid allotment. To offset some of this state aid deduction, the city has raised property taxes.

In Washington, D.C., the voucher program saved the city and its schools money, according to a study by the Cato Institute and the Foundation for Educational Choice. This was mostly because the program is federally funded and includes a federal grant. Still, if the federal grant were withdrawn and the program were locally funded, the researchers calculated that the city would save more than \$250,000.

## Part II. Major Voucher Programs, Court Cases, and Referenda

Although all voucher programs are built on the same basic principles, they differ in their key characteristics. Moreover, the field is constantly evolving, as older programs are phased out, existing programs are challenged in lawsuits, and new programs are enacted or proposed. This part describes the main publicly funded programs that provide (or previously provided) vouchers for private school tuition, as well as the major federal and state court cases and state ballot initiatives related to vouchers.

### **Voucher Programs Included and Not Included in This Review**

Our review focused on publicly funded voucher programs. It did *not* include the following types of programs:

- Tax credit scholarship programs, such as those available in Arizona, Florida, Georgia, and other states, that provide tax credits to families or corporations for payments made for children’s private school tuition
- Voucher programs specifically for students with disabilities or students in foster care, such as those adopted by Arizona, Florida, Georgia, Louisiana, Ohio, Oklahoma, and Utah
- “Town tuition” programs, such as those in Maine and Vermont, that limit vouchers to students in rural areas where public schooling is not available
- Privately funded voucher programs
- Voucher programs in other countries

Seven current voucher programs meet these criteria, including programs in Wisconsin, Cleveland, the District of Columbia, Ohio, New Orleans, Douglas County (Colorado), and Indiana. These programs are briefly described below, from oldest to newest. Also described is an additional private school voucher program in the state of Florida. This program, which has been the subject of several research studies, operated for several years but was struck down by the Florida Supreme Court in 2006.

In addition to the current and former voucher programs described below, new legislative proposals for vouchers are pending in Ohio, Pennsylvania, Tennessee, and other states. Voucher proposals have been defeated in recent years by the legislatures or electorates in California, Georgia, Illinois, Michigan, New Hampshire, Texas, Utah, and elsewhere.

### **Current Voucher Programs**

<p><b>Wisconsin Parental Choice Program</b> — established in Milwaukee in 1990, expanded to other locations in 2011</p>
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The Milwaukee Parental Choice Program was the first large-scale, publicly funded voucher program in the nation. The program provides vouchers to students in grades K-12 who reside in Milwaukee and whose family income does not exceed 175% of the poverty level. Participating private schools must admit any eligible student; if the number of private school applicants exceeds the number of open slots, students are chosen by lottery.

Under the program, participating families receive a specific amount per student— \$6,442 in school year 2010-11—to attend the participating private school of their choice within the city of Milwaukee. Originally, the program was restricted to non-religious schools, but in 1998 the Wisconsin Supreme Court affirmed the legality under the state’s constitution of including religious school in the program. In school year 2010-11, approximately 120 private schools participated.

In 2006, the maximum number of student slots for the program was increased from 15,000 to 22,500. At the same time, the program was amended to place greater accountability requirements on participating schools.

A budget bill enacted in June 2011 will expand the state-funded voucher program beyond Milwaukee to include students who attend suburban schools in Milwaukee County and students in the Racine Unified School District. The new legislation also lifts the cap on the number of participants and opens up the program to families with incomes of up to 300% of federal poverty guidelines.

Sources:

Alan J. Borsuk, “Study Finds Results of MPS and Voucher School Students Are Similar,” *Milwaukee Journal Sentinel*, March 26, 2009, <http://www.jsonline.com/news/education/41868652.html>

Alan J. Borsuk, “Milwaukee Could Become First American City to Use Universal Vouchers for Education,” *Milwaukee Journal Sentinel*, March 26, 2011, <http://www.jsonline.com/news/education/118721419.html>

Wisconsin Department of Public Instruction, Milwaukee Parental Choice Program [Web page], <http://dpi.state.wi.us/sms/choice.html>

Associated Press, “Wis. Gov. Signs Budget Cutting Education \$1.85B,” CBS News, June 26, 2011, <http://www.cbsnews.com/stories/2011/06/26/politics/main20074509.shtml#ixzz1QPws3PGA>

Patrick Marley & Jason Stein, “Senate OK’d Budget Goes to Walker,” *Milwaukee Journal Sentinel*, June 16, 2011, <http://www.jsonline.mobi/more/news/124004679.htm>

**Cleveland Scholarship and Tutoring Program** — established in 1995

The Cleveland Scholarship and Tutoring program, which is funded by the state of Ohio, was one of the first voucher programs in the nation. It is open to students in grades K-8 who reside within the boundaries of the Cleveland Municipal School District. (Once a student receives a voucher, it can be renewed every year through 12<sup>th</sup> grade.)

Depending on family income, the state of Ohio will pay either 75% or 90% of the annual tuition at a participating private school of the parents' choice. The voucher amount is capped at \$3,450 per student.

Scholarships are awarded through a lottery, with priority given to students from low-income families. The voucher can be used to attend a religious or a nonsectarian private school. As of 2009, approximately 6,300 students and 40 private schools were participating in the program.

Source:

Ohio Department of Education, School Options: Parent Information, Cleveland Scholarship and Tutoring Program [Web page], <http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=672&ContentID=5766&Content=99796>

### **Washington, D.C., Opportunity Scholarship Program** — established in 2004

The Washington, D.C., Opportunity Scholarship Program was the first federally funded voucher program. Until the program was put on hiatus in 2009, it awarded scholarships of up to \$7,500 to students entering grades K-12 who lived within the District of Columbia and whose family income did not exceed 185% of the federal poverty level. If the number of applicants exceeded the number of available scholarships, participants were selected by lottery, with priority given to students attending schools designated for improvement under the No Child Left Behind Act.

The vouchers could be used to attend any private religious or secular school within in the District of Columbia; however, voucher users had to meet the schools' admission standards. In 2009, 1,716 students and 52 schools participated in the program.

In 2009, the Obama Administration and the Congress ended funding for the program, and the U.S. Department of Education stopped admitting new students, although students who were already receiving vouchers could continue to receive them until they graduated from high school.

The agreement that resolved the negotiations over the 2011 budget contained a provision to renew the program for five more years. To qualify for the new version of the program, students must be D.C. residents from families with incomes at or below 185% of the federal poverty level. At the time this report was published, other details for the renewed program were not available.

Sources:

Michelle D. Anderson, "D.C. Vouchers Resurrected in Budget Compromise," *Education Week*, April 27, 2011, <http://www.edweek.org/ew/articles/2011/04/27/29dc.h30.html?qs=D.C.+vouchers+resurrected>

Bill Turque & Shailagh Murray, "Obama Offers Compromise on D.C. Tuition Vouchers," *Washington Post*, May 7, 2009, <http://www.washingtonpost.com/wp-dyn/content/article/2009/05/06/AR2009050603852.html>



Patrick Wolf et al., *Evaluation of the DC Opportunity Scholarship Program: Final Report* (Washington, DC: Institute of Education Sciences, U.S. Department of Education, 2010), <http://ies.ed.gov/ncee/pubs/20104018/>

D.C. Children & Youth Investment Trust Corporation, D.C. Opportunity Scholarship Program [Web page], <http://www.cyitc.org/youth/OSP.asp>

### **Ohio Statewide EdChoice Program** — established in 2005

In addition to funding the Cleveland voucher program, the state of Ohio also supports the Educational Choice (EdChoice) Scholarship Pilot Program. The program is open to students who attend Ohio schools that have been in “academic watch” or “academic emergency” status for two of the last three years under the state’s accountability system. Vouchers are worth \$4,250 for K-8 students and \$5,000 for high school students and may be used to pay tuition at any participating religious or secular private school.

Participating private schools are not required to admit every applicant; voucher holders must apply and be accepted for enrollment before using their voucher. The number of voucher slots is capped at 14,000 per year. If the number of applicants exceeds this cap, then participants are selected by lottery; students who are already receiving vouchers and those whose family incomes do not exceed 200% of the federal poverty level are given priority for vouchers. In school year 2009-10, 12,685 students and 305 private schools participated in the program.

Source:

Ohio Department of Education, School Options: Parent Information, EdChoice Scholarship Program [Web page], <http://www.ode.state.oh.us/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=667&ContentID=46154&Content=99797>

### **Louisiana (New Orleans) Student Scholarships for Educational Excellence** — established in 2008

The state-funded Louisiana Student Scholarships for Educational Excellence program provides private school tuition vouchers to elementary school students who reside in Orleans Parish (New Orleans). To be eligible, a student must come from a family with an income level below 250% of the federal poverty level and must have attended a K-5 school rated “academically unacceptable” in the previous year, meaning that the school failed to meet federal and state accountability benchmarks. Low-income students entering kindergarten for the first time are also eligible, as are students who attended an academically unacceptable elementary school and are repeating 6<sup>th</sup> grade.

Not all eligible applicants are guaranteed a voucher; if the number of applicants exceeds the number of slots, then voucher recipients are chosen by lottery. Students may use the voucher for “maximum tuition cost and incidental fees” at a private religious or secular school of their choice that has been approved by the Louisiana Department of Education. In 2009, 1,324 students used vouchers valued at more than \$7,000.

## Sources:

Michael B. Henderson, "In the Wake of the Storm," *Education Next* 10, no. 2 (Spring 2010), <http://educationnext.org/in-the-wake-of-the-storm/>

Louisiana Department of Education, The Student Scholarships for Educational Excellence Program [Web page], [http://www.louisianaschools.net/topics/scholarships\\_for\\_excellence.html](http://www.louisianaschools.net/topics/scholarships_for_excellence.html)

### **Douglas County, Colorado, Choice Scholarships** — established in 2011

In 2011, the school board of Douglas County, Colorado, a Denver suburb, adopted a voucher pilot program that sponsors assert fulfills the "local control" principle set forth by the Colorado Supreme Court in a 2004 decision (see Significant Court Cases below). Scheduled to begin in fall 2011, the program will give vouchers to up to 500 students of any income level who are county residents and have attended a county public school for at least a year; students who already attend private schools are ineligible. If the number of applicants exceeds 500, recipients will be chosen by lottery.

The vouchers, which can be used to pay tuition at a participating private school, including religious schools, will amount to 75% of the district's per-pupil funding (\$4,575 in school year 2011-12) or the actual cost of the private school tuition, whichever is less.

Participating private schools are not required to alter their admissions policies or accept voucher students who apply, but they must provide data on the achievement of voucher students, allow students to opt out of any religious programming, and meet certain other requirements

## Source:

Douglas County School District, DCSD Choice Scholarships Executive Summary, 2011, [http://www.dcsdk12.org/portal/page/portal/DCSD/Resources/School\\_Choice/DCSD\\_Choice\\_Scholarships\\_Exec\\_SummaryFINAL.pdf](http://www.dcsdk12.org/portal/page/portal/DCSD/Resources/School_Choice/DCSD_Choice_Scholarships_Exec_SummaryFINAL.pdf)

### **Indiana statewide voucher program** – established in 2011

On May 5, 2011, Indiana Governor Mitch Daniels signed into law the nation's broadest statewide voucher program, scheduled to begin in school year 2011-12. Families with incomes of up to \$61,000 are eligible to receive vouchers on a sliding scale, depending on income; the largest vouchers will go to children currently enrolled in public schools who qualify for free or reduced-price lunch. The maximum voucher amount is \$4,500 for elementary and middle school students and slightly higher, depending on geographic area, for high school students.

Students may use the voucher to attend the participating private school of their choice, including religious schools. The student must meet the private school's admission requirements, although the school cannot discriminate on the basis of race, color or national origin. If the number of students applying for a scholarship to a school exceeds the number of scholarship seats available, the school must conduct a random drawing at a public meeting. Private schools interested in participating will have to register with the state.

The voucher program is open to 7,500 students in its first year, rising to 15,000 in its second year. After that, there will be no cap on the number of participants.

Sources:

Eric Bradner, "With Education Reform Signed, Vouchers Could Be Available by Fall," *Evansville Courier & Press*, May 5, 2011, <http://www.courierpress.com/news/2011/may/05/education-reform-signed-vouchers-could-be-availabl/>

Indiana Department of Education, *Indiana Choice Scholarship Program, Frequently Asked Questions—Parents*, [http://www.doe.in.gov/schoolchoice/documents/faq\\_for\\_parents-choice\\_scholarships.pdf](http://www.doe.in.gov/schoolchoice/documents/faq_for_parents-choice_scholarships.pdf)

## **Past Voucher Program**

**Florida Opportunity Scholarship Program** — established in 1999, private school component struck down by court 2006

Florida's Opportunity Scholarship Program was the nation's first statewide voucher program. The program is open to student in grades K-12 who attend a public school that received a failing ("F") grade for two out of four years under the state's test-based accountability system. Until 2006, these vouchers could be used at any private religious or secular school or at a public school that received a grade of "C" or higher. In the 2005-06 school year, 1,688 students participated. The average private school voucher amount that year was \$4,206.

In 2006, the Florida Supreme Court declared the program's private school option to be unconstitutional, thereby ending the voucher component of the program (see Significant Court Cases below). However, students who meet the eligibility requirements described above may still receive scholarships to transfer to a higher-rated *public* school. In school year 2009-10, 1,431 students took advantage of this public school choice option.

Source:

Florida Department of Education, Opportunity Scholarship Program [Web page], <http://www.floridaschoolchoice.org/information/osp/>

## **Significant Court Cases**

Both opponents and proponents of vouchers have sometimes looked to the courts to advance their positions on vouchers and to settle federal and state constitutional issues. Since 2000, federal and state courts have laid down three significant decisions, described below, about the legality of voucher programs.

Consistent with the criteria explained above for including programs in this report, this list of court cases does not include numerous cases that address tuition tax credits or broader issues of government aid to private schools. It is noteworthy, however, that 37 states have language in their constitutions or state law that expressly prohibit the provision of direct government aid to educational programs with a religious affiliation. If more states choose to establish voucher programs, they must be careful about how these programs are organized.

### ***Zelman v. Simmons-Harris* — U.S. Supreme Court, 2002**

In perhaps the most influential court case involving vouchers, the U.S. Supreme Court ruled in 2002 that the Cleveland voucher program, which included religiously affiliated schools, did *not* violate the First Amendment principle of separation of church and state, thereby overturning a circuit court ruling to the contrary. The Supreme Court made a clear distinction between the Cleveland program, which distributes government funds to parents for use at the school of their choice, and government programs that provide aid directly to religiously affiliated schools; the court concluded that the Cleveland program was “neutral in all respects toward religion.” As part of its ruling, the court developed a list of five criteria that a voucher program must meet to be deemed constitutional: having a secular purpose, distributing funds to parents, covering a broad range of beneficiaries, not favoring any particular religion, and including nonreligious options.

Source:

U.S. Supreme Court, *Zelman, Superintendent of Public Instruction of Ohio, et al., v. Simmons-Harris et al.*, <http://Caselaw.Lp.Findlaw.Com/Scripts/Getcase.Pl?Court=Us&Vol=000&Invol=00-1751#Section1>

### ***Owens v. Colorado Congress of Parents* — Colorado Supreme Court, 2004**

In 2003, the Colorado state legislature passed, and the governor signed, a pilot Opportunity Contract Scholarship program that would have provided vouchers to certain public school students to attend the private school of their choice. To be eligible, students would have had to qualify for free or reduced-price school lunch; have unsatisfactory test scores or low readiness for learning (in the case of younger children); *and* attend a school district with at least eight schools rated “low” or “unsatisfactory” under the state’s accountability system.

Before the program could take effect, however, it was challenged in court and eventually struck down by both a district court and the Colorado Supreme Court. In a 2004 decision that marked the end of the program, the Colorado Supreme Court ruled that the program violated a longstanding section of the state constitution which requires local school districts to maintain control over locally raised funds.

Source:

Colorado Supreme Court, No. 03SA364, *Owens v. Colo. Cong. of Parents*, June 28, 2004, <http://www.courts.state.co.us/supct/opinions/2003/03SA364.doc>

### ***Bush v. Holmes* — Florida Supreme Court, 2006**

In a high-profile decision, the Florida Supreme Court found the private school portion of the state's Opportunity Scholarship Program to be unconstitutional. The decision hinged on whether the voucher program provided "a uniform, efficient, safe, secure, and high quality system of free public schools," as required by the state constitution. The court concluded that by diverting public money to a parallel and competing school system, the state was essentially funding a system of schools that was not "uniform" with the public schools. The court ordered the private school portion of the scholarship program to cease at the end of school year 2005-06.

Source:

Supreme Court of Florida, no. sc04-2323, John Ellis "Jeb" Bush, etc., et al., appellants, vs. Ruth D. Holmes, et al., January 5, 2006, [http://www.floridasupremecourt.org/pub\\_info/summaries/briefs/04/04-2323/filed\\_01-05-2006\\_opinion.pdf](http://www.floridasupremecourt.org/pub_info/summaries/briefs/04/04-2323/filed_01-05-2006_opinion.pdf)

### **Major State Ballot Initiatives**

Citizens in some states have had the opportunity through statewide referenda to vote on whether their state should adopt a voucher program.

### **California Proposition 38 — defeated in 2000**

Proposition 38 appeared on the November 2000 ballot in California. It put before voters the question of whether the state should adopt a program authorizing vouchers worth at least \$4,000 to any student who wanted to attend a religious or secular private school. Students who were already attending private schools would also have been eligible for vouchers. Proposition 38 spelled out eligibility rules for school participation and clarified that participating private schools would be exempt from most of the regulations governing public schools, except for reporting test scores of voucher students.

The initiative was defeated, with more than 70% of the electorate voting against it.

Sources:

California Secretary of State, "2000 California General Election, Voter Guide,"  
[http://vote2000.sos.ca.gov/VoterGuide/text/text\\_analysis\\_38.htm](http://vote2000.sos.ca.gov/VoterGuide/text/text_analysis_38.htm)

James S. Catterall & Richard Chapleau, *A Socio-Political Analysis of California's Proposition 38, Fall 2000, Occasional paper no. 42*, [http://www.ncspe.org/publications\\_files/487\\_OP42.pdf](http://www.ncspe.org/publications_files/487_OP42.pdf)

### **Michigan Proposal 1 — defeated in 2000**

Michigan's Proposal 1, which appeared on the state ballot in November 2000, took the form of a constitutional amendment to eliminate the state ban on tuition vouchers and other forms of indirect support to children attending private schools. Specifically, the amendment would have allowed students enrolled in districts that graduated fewer than two-thirds of their students to receive private school vouchers worth \$3,300. The proposal also would have permitted other school districts to authorize vouchers through a vote by the local electorate or the school board.

Michigan voters defeated the proposal by a vote of 69% to 31%.

Sources:

Michigan Department of State, *Michigan Election Results 2000, State Proposal - 00-1: To Permit the State to Indirectly Support Nonpublic School Students*, <http://miboecfr.nicusa.com/election/results/00gen/90000001.html>

Jessica Sandham, "Voters Deliver Verdict on Host of State Ballot Questions," *Education Week*, November 8, 2000, [http://www.edweek.org/ew/articles/2000/11/08/10web\\_ballot.h20.html?qs=michigan+vouchers](http://www.edweek.org/ew/articles/2000/11/08/10web_ballot.h20.html?qs=michigan+vouchers)

### **Utah Citizens' State Referendum Number 1 — defeated in 2007**

In February 2007, the Utah state legislature narrowly passed legislation to create what would have been the nation's first statewide universal voucher program. The program would have offered tuition vouchers, in amounts that varied based on family income, to any public school student in Utah who wanted to attend a private school.

Soon after the governor signed the voucher measure into law, opponents gathered sufficient signatures to put the program on hold and place the measure before Utah voters in a statewide referendum (a "citizens' veto" option permitted under state law for legislation that passes by less than a two-thirds majority). In November 2007, 62% of the electorate voted against implementation of the voucher legislation, and the program did not go into effect.

Sources:

Tiffany Erickson & Bob Bernick, Jr., "Vouchers Killed," *Deseret News*, November 7, 2007, <http://www.deseretnews.com/article/695225580/Vouchers-killed.html>

Michele McNeil, "Utah Vouchers Rejected in Overwhelming Vote," *Education Week*, November 7, 2007, [http://www.edweek.org/ew/articles/2007/11/07/12utah\\_web.h27.html](http://www.edweek.org/ew/articles/2007/11/07/12utah_web.h27.html)

Utah Office of the Lieutenant Governor, "Utah Voter Information Pamphlet: 2007 Special Election," [http://elections.utah.gov/Voter%20Information%20Pamphlet\\_2007.pdf](http://elections.utah.gov/Voter%20Information%20Pamphlet_2007.pdf)

## **Part III. Review of Major Voucher Studies Since 2000**

Scores of research studies, literature reviews, reports, papers, and opinion pieces on school vouchers have been published since CEP issued its last major report on voucher research in 2000. To arrive at a reasonable list of studies to review, we applied the criteria described below. The resulting list encompasses a diversity of authors, sponsors, locations, time frames, and student populations, and provides a window into the kinds of studies that have been conducted and the main findings of this body of research over the past decade.

This part summarizes the major voucher studies we reviewed. A list of these studies appears in the appendix to this report. The studies are grouped by state or city, according to the age of the voucher program. Within each state or city, the studies are ordered from the most recent to the oldest. Literature reviews covering multiple locations, as well as critiques of studies by outside researchers, are described at the end of this part. The quotations in the descriptions below are taken from the study reports themselves, and the rest of the material represents our best effort to summarize the authors' findings in a succinct and accurate way.

Our own synthesis of broad findings that cut across multiple studies from the list below can be found in part I.

### **Criteria for Including Voucher Studies**

To extract the most relevant and useful information for policymakers from this array, we focused our research review on studies that met the following criteria:

- Were published since 2000, when CEP last issued a major report on voucher research
- Focused on publicly funded voucher programs in the United States or, in the case of literature reviews, on various types of voucher programs including publicly funded ones
- Analyzed evidence from current or past voucher programs or reviewed or critiqued the research literature on these programs, rather than being primarily theoretical or opinion pieces
- Addressed key questions about vouchers
- Were conducted using well-established research methods

Applying some of these criteria necessarily involved making judgment calls, such as deciding what constitutes a key question or where to draw the line between informed interpretation of research and pure opinion. We tried to make these judgments in good faith, without regard to whether the findings of a particular study reflected favorably or unfavorably on vouchers.

## **Milwaukee**

### ***The Comprehensive Longitudinal Evaluation of the Milwaukee Parental Choice Program: Summary of Fourth Year Reports, 2011***

**Author:** Patrick J. Wolf, University of Arkansas

**Sponsor:** School Choice Demonstration Project, University of Arkansas

**Focus:** Summarized the main findings to date from the School Choice Demonstration Project's five-year comprehensive study of the Milwaukee Parental Choice Program. Examined several aspects of the Milwaukee voucher program, including its effects on student achievement, high school graduation, college enrollment, and civic values; parent and student satisfaction; school finance and capacity; and racial integration. More detailed findings for each of the aspects studied are available in the topic reports on the Project's Web site ([http://www.uark.edu/ua/der/SCDP/Milwaukee\\_Research.html](http://www.uark.edu/ua/der/SCDP/Milwaukee_Research.html)).

**Methods:** Used both quantitative and qualitative research approaches, including analyses of test score data, surveys, focus groups with parents and students, and school observations.

#### ***Main findings:***

- Participation in the voucher program has grown consistently and at times dramatically over the past 12 years. The voucher program serves a group of students who are more economically disadvantaged than the average Milwaukee public school student.
- The choice program has saved the state of Wisconsin a substantial amount of money—nearly \$52 million in fiscal year 2011. These savings are a result of the substantially lower per-pupil costs of the voucher versus the per-pupil costs of educating students in the Milwaukee public schools. Not all types of Wisconsin taxpayers share in the benefit of the cost savings of the voucher program, however. Property taxpayers in the city of Milwaukee suffer a fiscal penalty from the operation of the voucher program. Under the program's funding formula, state per pupil aid for voucher students ceases to flow to Milwaukee but about half of the voucher expenses are still deducted from the city's state aid allotment; Milwaukee has offset this deduction by raising property taxes.
- Both the Milwaukee Public Schools district and the Milwaukee Parental Choice Program have succeeded in denying public funds to, or closing, a substantial number of schools over the past four years. Most of these schools had lower than average test scores.
- Among a matched group of students who were 9<sup>th</sup> graders in 2006-07, students who attended private high schools using vouchers were more likely to have graduated from high school and enrolled in college than their counterparts in the Milwaukee public schools. Some of the benefits in educational attainment found among voucher students appeared to become less significant or not statistically significant, however, when the researchers controlled for such factors as mother's education, income, two-parent families, and religious attendance.



- Students in the Milwaukee voucher program appeared to be performing at lower levels on state tests than Milwaukee public school students in the younger grades and at somewhat higher levels in the older grades. When similar voucher students and public school students were tracked carefully over time, however, their rates of achievement growth were statistically similar after three years. “[T]o this point we have observed no significant effects of the [Milwaukee voucher program] on the rates of student gains in reading and math achievement.”
- Public school students “are performing at somewhat higher levels of achievement” as they experience competition from the voucher program. Students in public schools that were more affected by voucher competition—as measured by an index based on where they lived, their grade level, and whether or not they qualified for the voucher program—showed slightly greater gains in achievement than students less affected by voucher competition, all else being equal.
- The voucher program has had no discernible effect on the racial segregation of schools or housing costs across neighborhoods. “Most student transfers under the program involved minority students leaving heavily minority public schools . . . for similarly heavily minority private schools . . .”

**Where to obtain:**

[http://www.uaedreform.org/SCDP/Milwaukee\\_Eval/Report\\_28.pdf](http://www.uaedreform.org/SCDP/Milwaukee_Eval/Report_28.pdf)

**Graduation Rates for Choice and Public School Students in Milwaukee, 2003-2009, 2011**

**Author:** John Robert Warren, University of Minnesota

**Sponsor:** School Choice Wisconsin

**Focus:** Compares the graduation rates of students in Milwaukee public schools with those of students attending private schools through the Milwaukee Parental Choice Program.

**Methods:** Analyzed graduation rates for school years 2002-03 through 2008-09. Estimated the graduation rate by comparing the number of graduates in a particular school year with the number of students who entered high school four school years earlier. Although this approach does not account for students who moved out of the district, repeated a grade, or died during the four-year period, the study methodology “makes reasonable adjustments to account for these factors.” (Longitudinal data were not available, so graduation rates could not be calculated using the preferred method of tracking the same students over time.)

**Main findings:**

- Voucher students were more likely to graduate from high school than Milwaukee public school students. For six of the seven years analyzed, the graduation rate for voucher students exceeded that of public school students by anywhere from 6 to 27 percentage points. (The graduation rates went up during these seven years for both groups.) Overall, if

the graduation rate for the Milwaukee Public Schools equaled that of voucher students, the number of public school graduates would have been about 18% higher.

- Since Milwaukee voucher users are by definition low-income, students in the Milwaukee Public Schools come from a much broader range of social and economic backgrounds. Given the well-documented relationship between socioeconomic background and high school completion rates, one would expect to see *lower* high school completion rates among students in voucher schools. “On the other hand, families who are sufficiently motivated to make use of vouchers and to send their children to [voucher] schools may be different from other families in such a way that would lead us to expect *higher* graduation rates” among voucher students. More research is needed to determine whether the higher graduation rates among voucher students are caused by practices in the voucher schools.

**Where to obtain:**

<http://www.schoolchoicewi.org/data/research/2011-Grad-Study-FINAL3.pdf>

***School and Sector Switching in Milwaukee, 2010***

**Authors:** Joshua M. Cowen, University of Kentucky; David J. Fleming, Furman University; John F. Witte, University of Wisconsin-Madison; and Patrick J. Wolf, University of Arkansas

**Sponsor:** School Choice Demonstration Project, University of Arkansas

**Focus:** Analyzed the movement of students between the Milwaukee Parental Choice Program and the Milwaukee Public Schools. Also looked at the movement of students between schools within each sector.

**Methods:** Examined data collected as part of the ongoing evaluation of the Milwaukee voucher program, which tracked a representative group of voucher-using students and a matched group of regular public school students beginning in 2005-06. Also collected data through a survey of public and private school parents.

**Main findings:**

- Most students, whether in public or private school, tended to stay in their respective sector.
- Public school students moved between schools more often than voucher students, but tended to move to another school in the public sector. Students attending private school with vouchers switched schools less often than public school students, but when they did move, they tended to depart for the public sector. Therefore “voucher users are simply more likely to consider different sector alternatives.”
- As of 2008, 45% of Milwaukee parents had never heard of the voucher program. Therefore, they may have been less likely to consider a move to the private sector, even if their child moved frequently between public sector schools.
- Students who switched schools, regardless of whether they switched sectors, performed marginally worse academically in the year before their switch. Parents whose children

switched schools reported lower levels of school satisfaction than those whose children remained in place.

**Where to obtain:**

[http://www.uark.edu/ua/der/SCDP/Milwaukee\\_Eval/Report\\_16.pdf](http://www.uark.edu/ua/der/SCDP/Milwaukee_Eval/Report_16.pdf)

***“Can Increasing Private School Participation and Monetary Loss in a Voucher Program Affect Public School Performance? Evidence from Milwaukee,” 2008***

**Author:** Rajashri Chakrabarti, Federal Reserve Bank of New York

**Published in:** *Journal of Public Economics*, Vol. 92, Nos. 5-6, 1371-1393

**Focus:** Examined the effect of changes in the Milwaukee voucher program on public school performance, as measured by student test scores.

**Methods:** Analyzed the test performance of public school students before (phase 1) and after (phase 2) the 1998 Wisconsin Supreme Court ruling that opened the voucher program to religious private schools. The test data used were from Wisconsin’s state testing program (phases 1 and 2), as well from the Iowa Test of Basic Skills (phase 1). Compared the test scores of students in Milwaukee public schools with poverty rates of more than 60% (the “treated” group) with those of a control group of Milwaukee public schools that were similar in racial and socioeconomic makeup but were not eligible for the voucher program.

**Main findings:**

- As a result of the 1998 state Supreme Court ruling and a 1999 change in the state funding formula, the number of schools and students participating in the voucher program rose greatly, and the amount of revenue the Milwaukee Public Schools lost per voucher participant also increased. “These two changes led to a significant increase in voucher competition in the second phase of the program.”
- The changes that occurred in the voucher program after 1998 led to greater improvement of public schools in phase 2 of the voucher program than in phase 1. Phase 1 results were mixed—tests scores were not statistically different between the treated and the control group. In phase 2, however, the test scores of the treated schools improved at a much greater rate than those of the control group. “The findings imply that voucher design matters and choice of parameters in a voucher program is crucial as far as impacts on public school incentives and performance are concerned.”

**Where to obtain:**

[http://www.newyorkfed.org/research/economists/chakrabarti/mil1-2\\_Chakrabarti\\_frbny.pdf](http://www.newyorkfed.org/research/economists/chakrabarti/mil1-2_Chakrabarti_frbny.pdf). This is a working paper version. The published version, which requires a subscription to access, can be found here: <http://www.sciencedirect.com/science/article/pii/S0047272707000977>

***MPCP Longitudinal Educational Growth Study Baseline Report, 2008***

**Authors:** John Witte, University of Wisconsin-Madison; Patrick Wolf, University of Arkansas; Joshua Cowen, University of Wisconsin-Madison; David Fleming, University of Wisconsin-Madison; and Juanita Lucas-McLean, Westat

**Sponsor:** School Choice Demonstration Project, University of Arkansas

**Focus:** Reported baseline results on student achievement for students using vouchers under the Milwaukee Parental Choice Program and Milwaukee Public School students. Also looked at the characteristics and satisfaction of parents participating in the voucher program. (Since the cumulative findings about student achievement over four years are described above in *The Comprehensive Longitudinal Evaluation of the Milwaukee Parental Choice Program: Summary of Fourth Year Reports*, the description that follows focuses on the findings about parents.)

**Methods:** Administered surveys to students and parents participating in the voucher programs and to a matched sample of public school students and parents in Milwaukee.

**Main findings:**

- Voucher parents tended to have lower incomes but higher levels of education than did Milwaukee public school parents.
- The two groups are also quite similar on how they learned of their child's school and the qualities they sought in schools. A key difference was that voucher parents received more information from churches and placed a higher value on religious instruction than the public school parents did.
- Among both the public school and voucher groups, "over 70% of students were attending their parents' first choice of schools." Both groups of parents reported high levels of satisfaction with their schools, but voucher parents and students "are generally more positive about their schooling experience than their counterparts" in the Milwaukee Public Schools. Voucher parents were less likely to report problems at school and had slightly higher expectations for their children than the comparable public school parents. A higher percentage of voucher parents than of public school parents gave their child's school an "A" grade, although both groups tended to be positive about their child's school.

**Where to obtain:**

[http://www.uark.edu/ua/der/SCDP/Milwaukee\\_Eval/Report\\_05.pdf](http://www.uark.edu/ua/der/SCDP/Milwaukee_Eval/Report_05.pdf)

***Segregation Levels in Milwaukee Public Schools and the Milwaukee Voucher Program, 2006***

**Author:** Greg Forster, Foundation for Educational Choice

**Sponsor:** Foundation for Educational Choice

**Focus:** Compared the racial composition of public schools in the city of Milwaukee with that of private schools participating in the Milwaukee Parental Choice Program.

**Methods:** Developed a “segregation index” for each school that measured the percentage of white students in the school according to 2003 enrollment data from the U.S. Department of Education against the percentage of white students in the Milwaukee metropolitan area according to 2003 data from the Census Bureau. Compared values on the segregation index for 175 Milwaukee public schools and 73 private voucher schools, using separate comparisons for elementary and secondary schools. Also included a similar analysis of segregation in public and private schools in the nation’s 100 largest metropolitan areas.

**Main findings:**

- “Milwaukee private schools participating in the city’s voucher program are much less segregated than Milwaukee public schools.” On the segregation index developed for the study, private voucher schools were less segregated than public schools by 13 points. (For example, in a metro area with a school-age population that was 50% white, a school that was 60% white and a school that was 73% white would differ by 13 points on the segregation index.)
- Private schools have greater potential to desegregate students than public schools because private schools draw students from across neighborhood boundaries and because “the greater desirability of private schools gives parents a reason to overcome any qualms they may have about desegregation.” Vouchers also remove the monetary barrier that prevents many parents from sending their children to private schools that are less segregated than their neighborhood public schools.
- In the nation’s 100 largest metro areas, the difference between segregation levels in public and private schools was “trivial”—less than 2 points on the segregation index.
- Many factors shape segregation levels, and “we cannot yet empirically measure the extent to which their lower segregation levels are a result of the voucher programs vis-à-vis other factors.”

**Where to obtain:**

<http://www.edchoice.org/CMSModules/EdChoice/FileLibrary/86/Segregation%20Levels%20in%20Milwaukee%20Public%20Schools%20and%20the%20Milwaukee%20Voucher%20Program.pdf>

***Do Vouchers Lead to Sorting Even Under Random Private School Selection? Evidence from the Milwaukee Voucher Program, 2005***

**Author:** Rajashri Chakrabarti, Harvard University

**Sponsor:** National Center for the Study of Privatization in Education, Teachers College, Columbia University

**Focus:** Investigated the impact of voucher program structure on student sorting and analyzed whether it is possible to design a voucher program that would lessen or eliminate student sorting.

**Methods:** Examined student data from the Milwaukee Parental Choice Program

**Main findings:**

- Private schools participating in the Milwaukee voucher program did employ random choice when determining which applicants to admit, as required by the program design. (This is notably different from several other voucher programs, in which applicants must meet private school admission requirements.)
- In the Milwaukee program, student sorting did occur based on student ability level; however, sorting did *not* occur based on income level.
- There is “robust evidence . . . both theoretically and empirically, that random private school selection along with the absence of topping up of vouchers (requiring additional tuition on top of the voucher payment) can preclude sorting by income.” Therefore, the design of a voucher program can impact the extent to which sorting occurs.

**Where to obtain:**

[http://www.ncspe.org/publications\\_files/OP100.pdf](http://www.ncspe.org/publications_files/OP100.pdf)

***School Choice and the Supply of Private Schooling Places: Evidence from the Milwaukee Parental Choice Program,* 2004**

**Author:** Clive R. Belfield, Henry M. Levin, and Heather L. Schwartz, Columbia University

**Sponsor:** National Center for the Study of Privatization in Education, Teachers College, Columbia University

**Focus:** Investigated the supply of private schools participating in the Milwaukee voucher program, specifically their religious affiliation, distribution of voucher students across voucher schools, and how quickly private schools react to the opportunity presented by a voucher program. Hypothesized what the private school sector would look like under a large-scale voucher system.

**Methods:** Examined data from the Milwaukee Parental Choice Program

**Main findings:**

- Approximately 30% of private schools participating in the Milwaukee voucher program are secular; the remainder have some sort of religious affiliation (mainly Catholic, but that percentage is declining).
- Voucher students are consolidated among certain schools. “By 2001, 40% of participating schools have more than 80% of their students claiming vouchers.” This may have repercussions for both student segregation and funding sources.
- “The supply of new schools appears reasonably elastic: 46% of participating schools were founded after the program was introduced, and they are a mix of secular and religious schools.” Both secular and religious schools responded to the voucher by adjusting supply, but while the number of secular schools has increased steadily, the number of religious

schools increased quickly in the short run and then flattened out. “The long run expansion of the private religious sector occurred primarily by making more places available in existing schools, whereas the private secular sector expanded both by making more places available and through the opening of new schools.”

- In some rural areas, access to private schools may be constrained by high costs that are not covered by a voucher. “And, in some cases, vouchers may offer windfalls to students who would have enrolled in private school regardless and therefore increase the funds required to operate a large-scale voucher program.” Additionally, only about 1% of the participating private schools surveyed offered special education services.

**Where to obtain:**

[http://www.ncspe.org/publications\\_files/OP\\_84.pdf](http://www.ncspe.org/publications_files/OP_84.pdf)

**“School Choice and School Competition: Evidence from the United States,” 2003**

**Author:** Caroline M. Hoxby, Department of Economics, Harvard University

**Published in:** *Swedish Economic Review*, vol. 10

**Focus:** Looked at three questions: a) whether school choice increases public school productivity; b) whether students in choice schools perform better than students in regular public schools; and c) whether choice schools “skim” the best students away from regular public schools. Examined evidence from various publicly and privately funded voucher programs and charter school programs. (The description that follows focuses on the author’s analysis of the Milwaukee voucher program, the main publicly funded program discussed in this study.)

**Methods:** Grouped public schools in Milwaukee into “more treated,” “less treated,” and “somewhat treated” categories, depending on how much competition they faced from vouchers. Compared the achievement on state tests of students in grades 3 and 4 in the three groups of schools for the periods before and after the 1998 Wisconsin Supreme Court ruling, which led to substantial changes in the program.

**Main findings:**

- “Overall, Milwaukee suggests that public schools can have a strong, positive productivity response to competition from vouchers.”
- Standardized test scores at grades 3 and 4 improved dramatically in the most treated public schools in the years directly after the 1998 policy changes. It is “credible” that these “very impressive” results are caused by the voucher program “because they are measured relative to the untreated comparison schools, to the schools’ own previous level of performance, and to the schools’ own previous trend in performance.”
- The improvements in the most-treated group of schools are not the result of year-to-year variations in the test or of increased spending by the Milwaukee public schools, according to analyses done for the study.

- Vouchers did not skim the best-performing or worst-performing students from Milwaukee public schools. Voucher students scored lower on state tests than the average Milwaukee student but about the same as other low-income students who were eligible for vouchers but did not apply for them.

**Where to obtain:**

<https://ssl1.erevinc.com/secure/utahtaxpayers.org/wp-content/uploads/2004/01/posteconomicsharvarde.pdf>

## **Cleveland**

***“Differential Entry into a Voucher Program: A Longitudinal Examination of Families Who Apply to and Enroll in the Cleveland Scholarship and Tutoring Program,” 2007***

**Authors:** Kelli M. Paul, Natalie A. Legan, and Kim K. Metcalf, Indiana University

**Published in:** *Education and Urban Society*, 39, no. 2, 223-243

**Focus:** Looked at whether the Cleveland voucher program has “creamed” the best and brightest students from the public schools.

**Methods:** Examined demographic data from 1998 through 2001 collected for a longitudinal evaluation of the Cleveland voucher program. Sought to determine whether differences existed in school entry and exit among three groups of students: a) those who both received a voucher and used it to attend private school; b) those who received a voucher but chose not to use it; and c) those who were eligible for and applied for a voucher but did not receive it.

**Main findings:**

- Both voucher applicants and voucher recipients were highly similar to the overall student population of the Cleveland public schools, in that a majority of applicants and recipients were African American and low-income. The voucher application process “seems effective in drawing a reasonably representative sample of students” from the Cleveland public schools, and “does not appear to encourage or discourage any particular group of families to apply for a voucher.” The process for awarding vouchers “tends to effectively focus voucher awards on families of lowest income.” Families who applied for but did not receive a voucher are more likely to be higher income.
- Students who received voucher offers but chose not to use them were more likely to be minority students and have lower family incomes than students who used their vouchers. “Thus, 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.” The reasons for these differences are unclear, although it is likely that the practicalities of private school enrollment, including arranging transportation and covering the cost of tuition beyond the voucher level, are obstacles for some families.
- Students who used vouchers were more likely to have attended a private school prior to applying for a voucher than either students who applied for but did not receive vouchers or



students who received vouchers but did not use them. The two latter groups of students were more likely to have attended public schools prior to applying for a voucher.

**Where to obtain:**

<http://eus.sagepub.com/content/39/2/223> (subscription needed)

***Evaluation of the Cleveland Scholarship and Tutoring Program: Summary Report, 1998-2004, 2006***

**Authors:** Jonathan Plucker, Patricia Muller, John Hansen, Russ Ravert and Matthew Makel, Center for Evaluation & Education Policy, Indiana University

**Sponsor:** Center for Evaluation & Education Policy, Indiana University

**Focus:** Summarized findings of a seven-year evaluation of the Cleveland Scholarship and Tutoring Program conducted from 1998 through 2004. Examined various aspects of the program, including its impact on student achievement, parent involvement, classrooms, teachers, and schools, and the characteristics of participating students.

**Methods:** Tracked achievement over several years on the nationally standardized TerraNova test for a cohort of approximately 4,000 students in 100 schools. After controlling for differences in minority status, student mobility, and prior achievement, compared test scores of private school students who had used vouchers continuously from kindergarten through grade 6 with two groups of students still attending Cleveland public schools in grade 6—those who applied for but did not receive a voucher, and those who never applied for a voucher. Also collected data on other aspects of the program through telephone and face-to-face interviews, focus groups, and written surveys.

**Main findings:**

- Students who remained in the voucher program through the duration of the study were less likely to be African American or Latino than students in the public school comparison groups. Only 63% of current voucher users were minority students, compared with 82% to 89% of the public school comparison groups. There were no significant differences by gender among the various groups of vouchers users and non-users.
- Students who left the voucher program were more likely to be African American or Latino than voucher students who remained in private schools. Almost 90% of the students who left the program were minority students.
- A majority of voucher users—between 61% and 72%, depending on the school year—were already attending a private school in the year immediately before they first received the voucher.
- Although teachers in private schools that accepted vouchers were quite similar to teachers in public schools in certification, experience, and other key characteristics, public school teachers had completed more education than teachers in private voucher schools. For example, almost 51% of public school teachers had a master's degree or higher, compared with only 18% of teachers in private voucher schools. Public schools also had somewhat

smaller average class sizes than private voucher schools (19.8 compared with 22.9), although this may be partly explained by the existence of some very small classes in public schools.

- When adjusted for students' prior achievement, mobility, and minority status, overall achievement scores for students who used vouchers continuously from kindergarten through grade 6 did not differ significantly from those of students in the public school comparison groups. However, 6<sup>th</sup> grade students who had received vouchers since kindergarten did outperform one or both public school comparison groups in three specific subject areas—language arts, social studies, and science. These performance differences did not appear until 6<sup>th</sup> grade, so “it is possible that the impact of the [voucher] program is different in the early elementary years than it is during middle school years.”
- After adjusting for the factors cited above, public school students who did not apply for vouchers outperformed students who stayed in the voucher program at various points during the study, primarily in mathematics. But by the end of 6<sup>th</sup> grade, there were no statistically significant differences in mathematics between these two groups.
- Overall, students who left the voucher program tended to have lower levels of achievement across all subject areas than students who remained in the program.

**Where to obtain:**

[http://ceep.indiana.edu/projects/PDF/200602\\_Clev\\_Summary.pdf](http://ceep.indiana.edu/projects/PDF/200602_Clev_Summary.pdf)

***The Evidence on Education Vouchers: An Application to the Cleveland Scholarship and Tutoring Program, 2006***

**Author:** Clive R. Belfield, Queens College, City University of New York

**Sponsor:** National Center for the Study of Privatization in Education

**Focus:** Examines the effects of the Cleveland voucher program on students' academic achievement.

**Methods:** Used the same set of student achievement data on the TerraNova test collected for the Indiana University study of the Cleveland program (see above). Reanalyzed these data using a different approach that controlled for different types of factors, related the effects to how many years students had used vouchers, examined different subgroups of students, and manipulated the comparison group to examine different biases.

**Main findings:**

- There were no academic advantages for voucher users over other students; in fact, voucher users appeared to perform slightly worse in math. These results did not vary after adjustments were made for students' prior ability, time spent in the voucher program, and the addition of students who were offered a voucher but did not use it.

- Contrary to claims for other voucher programs, there was no evidence that the Cleveland voucher program had different effects on achievement for African American students than for other students.

**Where to obtain:**

[http://www.ncspe.org/publications\\_files/OP112.pdf](http://www.ncspe.org/publications_files/OP112.pdf)

**Segregation Levels in Cleveland Public Schools and the Cleveland Voucher Program, 2006**

**Author:** Greg Forster, Foundation for Educational Choice

**Sponsor:** Foundation for Educational Choice

**Focus:** Sought to determine whether private schools that participated in the Cleveland voucher program were more or less segregated than public schools.

**Methods:** Developed a “segregation index” for each school that measured the percentage of white students in the school according to 2003-04 enrollment data from the U.S. Department of Education against the percentage of white students in the Cleveland metropolitan area according to 2003 Census Bureau data. Compared values on the segregation index for 116 Cleveland public schools and 31 private voucher schools, using separate comparisons for elementary and secondary schools. Also included a similar analysis of segregation in public and private schools in the nation’s 100 largest metropolitan areas.

**Main findings:**

- Private schools participating in the Cleveland voucher program were less segregated than Cleveland public schools by 18 points on the study’s segregation index. (As an example, in a metro area with a 50% white school-age population, a school that was 60% white and one that was 78% white would differ by 18 points on this index.)
- Although this finding is consistent with findings about the degree of segregation in private voucher schools in Milwaukee and Washington, D.C., adequate methods have not yet been developed to “empirically measure the extent to which their lower segregation levels are a result of the voucher programs vis-à-vis other factors.”
- According to the study, private schools may have a greater potential to desegregate students because they are able to draw their students from across neighborhood and geographic boundaries in a way that a public school district cannot.

**Where to obtain:**

<http://www.edchoice.org/CMSModules/EdChoice/FileLibrary/88/Segregation%20Levels%20in%20Cleveland%20Public%20Schools%20and%20the%20Cleveland%20Voucher%20Program.pdf>

## **Florida**

### ***Lost Opportunity: An Empirical Analysis of How Vouchers Affected Florida Public Schools, 2008***

**Author:** Greg Forster, Foundation for Educational Choice

**Sponsors:** Foundation for Educational Choice, Foundation for Excellence in Education, and James Madison Institute

**Focus:** Examined the effects of the Florida A+ Opportunity Scholarship Program on Florida public schools from 2001-02, when the program was first implemented, through 2006-07, the year after the state Supreme Court declared the private school component unconstitutional.

**Method:** Tracked changes in student achievement in low-performing schools using matched test scores from the Florida Comprehensive Assessment Test for the same students from year to year. Grouped these schools according to whether they were already eligible for vouchers (meaning that they had received an “F” grade in two out of four years) or how close they were to becoming eligible in the future. Compared year-to-year changes in schoolwide achievement in these groups of schools with policy changes in the voucher program.

**Main findings:**

- The availability of vouchers had a positive correlation with test score improvements in the worst-performing public schools. “[V]ouchers were a key element driving improvements in public schools from the A+ program. At every step, the academic performance of failing public schools in Florida responded to changes in the status of vouchers in the A+ program.”
- “From 2003-04 through 2005-06, public schools whose students were offered vouchers outperformed other Florida public schools by between 20 and 27 points.”
- The removal of the private school vouchers “caused the positive impact on public schools to drop well below what it had been even in 2001-2002.”

**Where to obtain:**

[http://www.edchoice.org/CMSModules/EdChoice/FileLibrary/284/Oppurtunity\\_FL\\_0308.pdf](http://www.edchoice.org/CMSModules/EdChoice/FileLibrary/284/Oppurtunity_FL_0308.pdf)

### ***Feeling the Florida Heat? How Low-Performing Schools Respond to Voucher and Accountability Pressure, 2007***

**Authors:** Cecilia Elena Rouse, Princeton University and National Bureau of Economic Research; Jane Hannaway, Urban Institute; Dan Goldhaber, University of Washington; and David Figlio, University of Florida and National Bureau of Economic Research

**Sponsor:** National Center for Analysis of Longitudinal Data in Education Research, Urban Institute

**Focus:** Examined the effects of Florida’s accountability system, the A+ Plan for Education, on instructional practices. This system included three key polices to spur public school improvement,

including the stigma of grading schools on an “A” through “F” scale, additional state oversight for schools receiving low grades, and competition from vouchers available to students in schools with “F” grades over multiple years.

**Methods:** Analyzed short-term and long-term changes in student test scores. Analyzed school policies and practices that might have impacted test scores using survey data.

**Main findings:**

- Reading and math test scores improved among students in elementary schools that received an “F” grade in the summer of 2002, compared with scores of “otherwise equal counterparts in other schools.” These test score gains for students in failing schools remained after three years.
- Public schools under the greatest pressure from the school rating and voucher program changed their instructional practices in meaningful ways, such as increasing instructional time and teacher resources, reorganizing the learning environment, and targeting high-needs students. “[A] significant portion” of the test score gains in F-rated schools “can likely be attributed to these changes in policies and practices.”
- When schools are faced with increased stigma, oversight, and the threat of vouchers—three key elements of the A+ Plan—student outcomes can improve. “However, we know little about what generates these improvements.” (The study did not determine the extent to which competition from vouchers, in particular, contributed to this improvement.)

**Where to obtain:**

[http://www.caldercenter.org/PDF/1001116\\_Florida\\_Heat.pdf](http://www.caldercenter.org/PDF/1001116_Florida_Heat.pdf)

***The Effects of Vouchers on Florida Public School Achievement, 2003***

**Authors:** Jay P. Greene and Marcus A. Winters, Manhattan Institute for Policy Research

**Sponsor:** Center for Civic Innovation, Manhattan Institute for Policy Research

**Focus:** Sought to determine whether low-performing schools facing high competition from vouchers were motivated to make better improvements than low-performing schools facing less competition from vouchers.

**Methods:** Grouped low-performing public schools into five categories based on the degree of competition a school faced from vouchers and compared them with similarly low-performing public schools that faced no immediate competition from vouchers. Examined test score improvements on the state test and the national standardized Stanford-9 test.

**Main findings:**

- “Florida’s low-performing schools are improving in direct proportion to the challenge they face from voucher competition. These improvements are real, not the result of test gaming, demographic shifts, or the statistical phenomenon of ‘regression to the mean.’”

- Schools that already faced competition from vouchers because they had received at least two “F” grades on the state’s accountability ratings showed greater gains in student test scores than schools in any of the other groups. Schools threatened with the prospect of vouchers showed the next-largest test score improvements, while schools that received “D” grades but were not facing imminent competition from vouchers made gains indistinguishable from Florida schools that were not low-performing.
- “[O]nce the threat of vouchers goes away, so does the incentive for failing schools to improve.” Schools that had experienced the stigma of an “F” grade in 1998-99 but no longer faced the competition from vouchers due to improved ratings in subsequent years did not show test score gains like those attained by failing schools that did face voucher competition.

***Where to obtain:***

<http://www.eric.ed.gov/PDFS/ED501690.pdf>

**Washington, D.C.**

***Evaluation of the DC Opportunity Scholarship Program: Final Report, 2010***

***Authors:*** Patrick Wolf, University of Arkansas; Babette Gutman, Westat; Michael Puma, Chesapeake Research Associates; Brian Kisida, University of Arkansas; Lou Rizzo, Westat; Nada Eissa, Georgetown University; and Matthew Carr, Westat

***Sponsor:*** Institute of Education Sciences, U.S. Department of Education

***Focus:*** Summarizes the impact of the D.C. voucher program on students and schools. Final report of a Congressionally mandated study that annually tracked the effects of the program between 2004 and 2010.

***Methods:*** Collected data on 2,300 students of various ages selected during the program’s first two years. All of these students were low-income, reflecting the program’s eligibility criteria, and all had applied for D.C. vouchers. Students were divided into two groups: those who received a voucher offer under the program’s random lottery (including students who were offered a voucher but did not actually use it); and a control group of students who did not receive a voucher offer. “Since only chance determined who participated, the evaluation researchers could compare the outcomes of the two groups and conclude that any difference was caused by the program rather than by previously existing differences in the students.”

About 22% of the first group of students, the successful voucher applicants, never actually used their voucher to attend a private school; thus, the study also examined achievement and graduation rates for the subset of awardees that used their vouchers.

***Main findings:***

- After four or five years of participating in the D.C. voucher program, low-income students who were awarded vouchers to attend private schools were performing at similar levels in reading and math, overall, as students who applied for but did not receive voucher awards. Although some subgroups of students (female and higher-achieving students) appeared to have higher levels of reading achievement if they received a voucher, “those findings could be due to chance.”
- The pattern of no significant differences in achievement between successful and unsuccessful voucher applicants was the same for the high-priority group of voucher applicants from public schools designated as “in need of improvement” under the No Child Left Behind Act.
- “[S]tudents who were awarded vouchers (and old enough to have graduated from high school) graduated at significantly higher rates than did their counterparts, according to parent reports.” The graduation rate was 82% for students awarded vouchers, compared with 70% for the control group.
- The same findings about achievement and graduation rates hold true for students who actually used their voucher instead of just being awarded one. The voucher users showed no significant differences in reading and math achievement from the control group, but the improvement in their graduation rates was even higher than for voucher awardees.
- The voucher program “had a positive impact on parents’ satisfaction with their child’s school and their perceptions of the school’s safety, but the students themselves rated school satisfaction and safety the same whether they received a voucher or not.”
- From 2005 to 2009, only about 3% of students in the D.C. Public Schools left the district to attend private schools with vouchers—“probably too few to be noticed by public school officials” in a district with an annual mobility rate of 20% and declining enrollments overall.

**Where to obtain:**

<http://ies.ed.gov/ncee/pubs/20104018/pdf/20104018.pdf>

***Satisfied, Optimistic, Yet Concerned: Parent Voices on the Third Year of the DC Opportunity Scholarship Program, 2007***

**Authors:** Thomas Stewart, Symphonic Strategies; Patrick J. Wolf, University of Arkansas; Stephen Q. Cornman, Georgetown University; and Kenann McKenzie-Thompson, Columbia University

**Sponsor:** School Choice Demonstration Project, Public Policy Institute, Georgetown University

**Focus:** Sought to understand families’ experiences with the Opportunity Scholarship Program (OSP), and their changing or unchanging beliefs, attitudes and motivations.

**Methods:** Used a self-reported evaluation of 110 families representing 180 scholarship recipients, including 60 families that began the program in its first year and 50 that began in its second year. Participants were either randomly selected or recruited during family meetings, but all elected to participate. Therefore, “readers should be cautious in generalizing any descriptive findings

presented here to the OSP as a whole or to non-OSP school voucher programs.” Researchers questioned families on how they measure success and express satisfaction or dissatisfaction, their perception of how the OSP has impacted their child, and their “evolving attitudes about and behaviors associated with school choice.”

***Main findings:***

- By the time of the study, the majority of families who started the program in its first year felt that their concerns about their children’s safety at school had been assuaged and felt they could shift their attention to grades, test scores, and other aspects of their children’s academic development.
- Most parents surveyed said they measured their children’s progress based almost entirely on their level of enthusiasm about and improved attitude towards learning, citing grades and test scores as secondary concerns. “By this standard, the vast majority of families reported that their children [were] succeeding or progressing in very important ways.”
- Many parents involved in the surveys had a strong interest in participating in focus groups about the program and appreciated being able to share program experiences and information with other families. They expressed a desire for an independent entity to monitor schools and verify the information parents receive about services.
- Most parents found conversations with school-based employees to be the most helpful source of information about schools and programs. Most said they would prefer to express their views and opinions about the programs by communicating directly to Congress or the City Council, rather than by such means as forming parent groups, engaging in protests, or voting.

***Where to obtain:***

[http://www.uark.edu/ua/der/SCDP/DC\\_Research/PSV3.pdf](http://www.uark.edu/ua/der/SCDP/DC_Research/PSV3.pdf)

***Spreading Freedom and Saving Money: The Fiscal Impact of the D.C. Voucher Program, 2006***

***Authors:*** Susan L. Aud, Foundation for Educational Choice; and Leon Michos, George Washington University

***Sponsor:*** Cato Institute and Foundation for Educational Choice

***Focus:*** Examined the fiscal impact of the D.C. Opportunity Scholarship Program on the D.C. Public Schools and the District of Columbia.

***Methods:*** Analyzed the per-pupil funding formula and other aspects of the D.C. voucher program, as well as the budget process of the D.C. Public Schools.

***Main findings:***

- “The current program saved the city nearly \$8 million between its inception and the time of the study, mostly because the program is federally funded and includes a federal grant to



public schools. If federal grant subsidies were withdrawn and the program were locally funded, the city would still save \$258,402 due to the greater efficiency of school choice.”

- The process by which both the D.C. school district and its schools are funded “is not conducive to efficiency or excellence” because the voucher program allows the district’s central administration to retain an even higher share of overall funding than it did previously.

**Where to obtain:**

<http://www.edchoice.org/CMSModules/EdChoice/FileLibrary/73/Spreading%20Freedom%20and%20Saving%20Money%20The%20Fiscal%20Impact%20of%20the%20D.C.%20Voucher%20Program.pdf>

**Parent and Student Voices on the First Year of the DC Opportunity Scholarship Program, 2005**

**Authors:** Thomas Stewart, Symphonic Strategies; Patrick Wolf, Georgetown University; and Stephen Cornman, Columbia University

**Sponsor:** School Choice Demonstration Project, Public Policy Institute, Georgetown University

**Focus:** Looked at families’ experiences with the D.C. Opportunity Scholarship Program.

**Methods:** Conducted 12 focus groups with parents and students from 45 families participating in the voucher program.

**Main findings:**

- Most families had not explored educational opportunities outside of their child’s assigned school before the D.C. voucher program was created and “consistently expressed gratitude for the financial support” that allowed them a choice of schools. Most wanted to participate in the voucher program to provide their children with the best possible education.
- The most common reasons parents gave for choosing a voucher school were “school safety and a religious or values-based educational environment.”
- Voucher students listed challenging academics and stricter discipline as differences they noticed in their new private schools; some complained of poorer facilities. Some parents welcomed the new educational demands, while other struggled with the greater time commitment and desired a support network. Parents and students reported a mixed degree of receptiveness from voucher schools.
- Parents and students expressed generally high levels of satisfaction with their schools; among parents who were dissatisfied with their school choice, most were still satisfied with the voucher program. “Parents and students most often cited the opportunities that the program created as the main reason for their satisfaction.”

**Where to obtain:**

[http://www.uark.edu/ua/der/SCDP/DC\\_Research/PSV1.pdf](http://www.uark.edu/ua/der/SCDP/DC_Research/PSV1.pdf)

## **Ohio Statewide EdChoice Program**

***Promising Start: An Empirical Analysis of How EdChoice Vouchers Affect Ohio Public Schools, 2008***

**Author:** Greg Forster, Foundation for Educational Choice

**Sponsor:** Foundation for Educational Choice

**Focus:** Compared growth in test scores in low-performing public schools whose students were eligible for vouchers under Ohio's EdChoice program with growth in other Ohio public schools.

**Methods:** Analyzed math and reading scores on Ohio's state test for students in grades 3 through 8 over two years. High schools were not included due to a lack of available data.

### ***Main findings:***

- In the first year of operation of the EdChoice program, math and reading test scores either improved or stayed the same in the lowest-performing public schools whose students were eligible for vouchers.
- The results were virtually the same when test scores were analyzed only for schools located in major urban districts with very high poverty, according to the state's designation. "This suggests that the results of the analysis are not affected by regression to the mean."

### ***Where to obtain:***

<http://www.edchoice.org/CMSModules/EdChoice/FileLibrary/311/Promising%20Start%20-%20An%20Empirical%20Analysis%20of%20How%20EdChoice%20Vouchers%20Affect%20Ohio%20Public%20Schools.pdf>

## **Literature Reviews and Critiques**

***Review of "The Comprehensive Longitudinal Evaluation of the Milwaukee Parental Choice Program: Summary of Fourth Year Reports," 2011***

**Author:** Clive Belfield, Queens College, City University of New York

**Sponsor:** National Education Policy Center, University of Colorado

**Focus:** Takes a critical look at the fourth-year summary report of the ongoing evaluation of the Milwaukee voucher program conducted by the School Choice Demonstration Project (SCDP) at the University of Arkansas. (See the entry in the Milwaukee section for *The Comprehensive Longitudinal Evaluation of the Milwaukee Parental Choice Program: Summary of Fourth Year Reports.*)

**Methods:** Analyzes and critiques the methods used in the SCDP study and the validity of the findings and conclusions in the fourth-year report.

**Main findings:**

- The SCDP summary report “uncritically restates findings” based on evidence that is almost exclusively the researchers’ own work, with no reference to other academic literature. None of the work summarized in the SCDP report has been published in peer-reviewed journals, and the summary report does not address past criticisms of SCDP reports. “Even as some of the report’s claims are in accord with the broader literature, their appearance in isolation makes for an overly simple evaluation of the [Milwaukee Parental Choice Program].”
- The findings of the SCDP summary report “should be viewed with caution but interest.” The summary report overstates the positive effects of vouchers on high school graduation and college attendance. According to the earlier SCDP study from which this positive finding is drawn, the possible effect of vouchers on students’ educational attainment loses statistical significance when family characteristics are included.
- The contention in the SCDP summary report that the Milwaukee voucher program has no adverse effects ignores the authors’ own findings that the program has adverse financial effects for Milwaukee taxpayers. Moreover, the finding that the voucher program saves taxpayers money is based on an assumption of how many students would have attended public schools had the voucher not been available and a supposition that it would cost the same to educate voucher-users in public schools as it would to educate as other public school students. Neither supposition may be valid.
- The statement in the SCDP report that Milwaukee public school students are performing at “somewhat higher levels” as a result of voucher competition ignores the conclusion of an earlier SCDP report that the benefits from competition were “small, if not negligible.” Similarly, the statement about improved public school performance fails to acknowledge the possibility that charter schools, rather than vouchers, are spurring other public schools to achieve at higher levels.

**Where to obtain:**

<http://nepc.colorado.edu/files/TTR-MilwVoucherBELFIELD.pdf>

***A Win-Win Solution: The Empirical Evidence on How Vouchers Affect Public Schools*** (2<sup>nd</sup> edition), 2011

**Author:** Greg Forster, Foundation for Educational Choice

**Sponsor:** Foundation for Educational Choice

**Focus:** Summarized and interpreted the results of a variety of research on publicly and privately funded school voucher programs.

**Methods:** Reviewed 10 empirical studies of both publicly and privately funded voucher programs that used random assignment to examine how school vouchers affect academic outcomes for participants and 19 empirical studies of both publicly and privately funded voucher programs that looked at how vouchers affect outcomes for public schools.

**Main findings:**

- Of the 10 studies reviewed that looked at students' academic outcomes in publicly and privately funded voucher programs, nine found "that vouchers improve student outcomes, six that all students benefit and three that some benefit and some are not affected." One study (in Washington, D.C.) found no visible impact. None found a negative impact.
- Of the 19 studies that looked at outcomes for schools in publicly and privately funded voucher programs, 18 found "that vouchers improved public schools and one [found] no visible impact. No empirical studies [found] that vouchers harm public schools."

**Where to obtain:**

<http://www.edchoice.org/CMSModules/EdChoice/FileLibrary/656/A-Win-Win-Solution---The-Empirical-Evidence-on-School-Vouchers.pdf>

**"Is There a Consensus on School Choice and Achievement?" 2009**

**Authors:** Christopher Lubienski, Peter Weitzel, and Sarah Lubienski, University of Illinois

**Published in:** *Educational Policy*, 23, no. 1 (January 2009), 161-193

**Focus:** Summarized and attempted to discern a trend in findings from research on the impact of school vouchers on student achievement.

**Methods:** Reviewed and critiqued studies of publicly funded voucher programs in Milwaukee, Cleveland, and the District of Columbia, and privately funded voucher programs in New York, Dayton, and D.C. Also reviewed larger-scale analyses of nationally representative samples of public and private schools from the federally sponsored High School and Beyond data set.

**Main findings:**

- Research on achievement and school choice suggests "a much more complex picture" than voucher advocates have indicated, with "mixed findings that generally indicate minimal advantages from choice in the best light." Patterns are "inconsistent, with most groups typically seeing no gains, and even causation is unclear in the isolated instances where gains may appear."
- One set of studies conducted largely by voucher advocates finds "relative gains for students using vouchers to switch to private schools. Another set of studies examines large-scale data sets and finds virtually no academic advantage—or even a negative effect—for students attending private schools . . . [N]either of these literatures ultimately represents the definitive statement on the question of the potential of vouchers to improve student achievement."
- The quality and dissemination strategies of the research conducted by choice advocates are "troubling" because "traditional scholarly processes of review for quality control have been largely circumvented." Claims that a particular methodology using randomization is the "gold standard" for voucher research is "limited in its understanding of research on this topic" and "misrepresents the relative strengths and weaknesses of different methodologies."

**Where to obtain:**

<http://epx.sagepub.com/content/23/1/161.short> (subscription needed)

***“School Vouchers and Student Achievement: Recent Evidence, Remaining Questions,”* 2008**

**Authors:** Cecilia Elena Rouse, Princeton University and National Bureau of Economic Research; and Lisa Barrow, Federal Reserve Bank of Chicago

**Published in:** *Annual Review of Economics*, vol. 1 (2009), 17-42

**Focus:** Reviewed the empirical evidence on the impact of education vouchers and other forms of school choice on student achievement.

**Methods:** Reviewed research on publicly funded voucher programs in Milwaukee, Cleveland, and D.C., and privately funded programs in New York, Dayton, and D.C.

**Main findings:**

- The best research to date on publicly and privately funded voucher programs has found small and mostly insignificant achievement gains for students who are offered vouchers.
- The little evidence that exists about the response of public schools to competitive pressure from vouchers suggests that “one should remain wary that large improvements would result from a more comprehensive voucher system.” Evidence from studies of other forms of school choice is consistent with this conclusion.
- Many key questions about vouchers remain unanswered, including their longer-term impacts on graduation rates, college enrollment, or future wages, and whether vouchers could provide a cost-neutral alternative to the current U.S. system of public education.

**Where to obtain:**

<http://www.ers.princeton.edu/workingpapers/28ers.pdf>. This is a working paper version. The published version, which requires a subscription, can be downloaded here:

<http://www.annualreviews.org/doi/full/10.1146/annurev.economics.050708.143354>

***“Interpreting Voucher Research: The Influence of Multiple Comparison Groups and Types,”* 2006**

**Authors:** Kim K. Metcalf and Natalie A. Legan, Indiana University

**Published in:** *Journal of School Choice*, 1, no. 1, 47-65.

**Focus:** Examined how and why the approaches used to select comparison groups of families for voucher studies proscribe the interpretations that can be made from a given study.

**Methods:** Drew from the authors’ own experiences studying the Cleveland voucher program, as well as from other recent studies and research syntheses on school choice.

**Main findings:**

- Families who pursue, receive, and choose to use a voucher have unique characteristics. Those who apply “are motivated to voluntarily invest the time and effort required to apply for the voucher.” Those who win a voucher “are afforded expanded educational choice that they desired.” Those who choose to use the voucher are exercising choice by enrolling their children in private school. Because these families “wanted, received, and exercised the voucher option, they are likely to enhance whatever academic impact their children’s schools may have.”
- Voucher researchers can choose different possible comparison groups for voucher studies, including voucher users, unsuccessful voucher applicants, voucher winners who opt not to use their vouchers, former users, and non-applicants. Each of these groups has a unique set of characteristics. Because these distinct combinations have differential effects, comparisons of voucher students with non-voucher students can lead to slightly different results. As a result, “no single comparison group is sufficient for understanding the impact of vouchers.” The most complete understanding of the impact of vouchers on students requires the use of multiple comparison groups.

**Where to obtain:**

<http://www.informaworld.com/smpp/content~db=all~content=a902937108> (Available only with subscription.)

**“The Potential Impact of Vouchers,” 2004**

**Author:** Patrick J. McEwan, Wellesley College

**Published in:** *Peabody Journal of Education*, 79, no. 3 (July 2004), 57-80

**Focus:** Reviews recent research on three issues: a) whether students who use vouchers to attend a private school have better outcomes than they would obtain in a public school; b) whether vouchers encourage student sorting and if so, how this affects student outcomes; and c) whether offering vouchers promotes competition and thereby improves outcomes for students who remain in public schools.

**Methods:** Analyzed findings from a large-scale study of public and private school achievement that relied on data from the National Education Longitudinal Study; studies of privately funded vouchers in New York City, Dayton, and Washington, D.C.; the evaluation of publicly funded vouchers in Milwaukee; and a study of a voucher program in the nation of Columbia.

**Main findings:**

- “African American students who are offered vouchers experience small achievement gains,” according to the studies of publicly and privately funded voucher programs analyzed. These results are not apparent for other racial or ethnic groups.
- Large-scale publicly and privately funded voucher programs encourage student sorting that could lower the achievement of public school students. “There is no compelling evidence

that such losses are outweighed by competitive gains in public schools.” These conclusions about sorting and competition are most applicable to plans that offer flat-rate vouchers to a large number of students with few eligibility restrictions.

***Where to obtain:***

<http://www.wellesley.edu/Economics/mcewan/PDF/voucherupdaterevised.pdf>

## IV. Recommendations and Final Observations

As the studies summarized in this report suggest, voucher research, like the voucher idea itself, is complex and controversial. Voucher programs vary in ways that can affect study outcomes. It is often difficult to sort out to what extent a voucher program, rather than other factors, has produced or contributed to a certain result. The methods used to conduct voucher studies also affect the study outcomes.

Much of the recent research on vouchers has been sponsored or funded by organizations with a clear viewpoint in favor of vouchers. This complicates efforts to determine the objectivity of studies. Voucher research involves complex, technical decisions about methodology. Examples include decisions about whether to control for student, family, or school variables and which variables to use; which students to use as a control group; and to what extent public schools are affected by competition from vouchers. If researchers are not completely objective, they may make these types of decisions in a way that is most likely to yield findings that support their own views. This situation points to the need for careful scrutiny to ensure a particular study is not biased.

Our 2000 report on vouchers, *School Vouchers: What We Know and Don't Know . . . And How We Could Learn More*, included recommendations for policymakers intended to improve the quality of research on publicly funded voucher programs. The need for these types of recommendations to guide future voucher research is more important than ever given the heightened political interest in vouchers, the shifts in the arguments used in support of the concept, and the greater involvement of groups with pro-voucher missions in sponsoring or funding research.

After reflecting on recent developments in the voucher world, we have two main recommendations to ensure that future voucher research is objective and of high quality. These recommendations are directed to individuals who conduct voucher studies and the organizations that sponsor or fund this research:

1. Establish independent advisory committees that include experts with different views to ensure that voucher studies are designed, conducted, and reported in an unbiased way.
2. Reveal publicly which organizations have sponsored and funded voucher studies.

In addition, the following recommendations from our 2000 report bear repeating in today's environment:

3. Adhere to rigorous professional standards for objective evaluation and clearly describe the methods used.
4. Include an evaluation component in legislation authorizing voucher programs.
5. Encourage long-term evaluations to better capture the effects of a voucher program over time.



Two final observations warrant mention. First, policy decisions about vouchers are often influenced by factors other than evidence from research about their impact or effectiveness. Many policymakers and other influential players in voucher debates have strong opinions about vouchers that are based on philosophy and values. Perhaps this is why the evidence that vouchers have not had a strong impact on student achievement has not slowed the push for new voucher programs in many states. Debates about vouchers must also address such issues as the importance of individual choice relative to other principles and the effect of vouchers on the civic goals of public education, such as building a cohesive society.

Second, it is important to keep in mind that most U.S. students are, and will continue to be, educated in public schools. Even if voucher programs were more widespread, and even if the evidence for vouchers were more clearly positive, many students who are eligible for vouchers do not use them, and some who use them end up leaving private schools to return to public schools. Thus, whatever one's view about vouchers, they should not be seen as a comprehensive solution for the problems of public education.

## Credits and Acknowledgments

This report was researched and written by Alexandra Usher, CEP research assistant, and Nancy Kober, a CEP consultant. Jack Jennings, CEP's president and CEO, and Diane Stark Rentner, CEP's director of national programs, provided advice and assistance on the content.

We would like to thank the following people who reviewed this report and provided valuable feedback: Steven Klees, professor of International and Comparative Education, University of Maryland; Kim Metcalf, dean, College of Education, University of West Georgia; Cecilia Rouse, professor in Economics of Education, Princeton University; and Thomas Toch, executive director, Independent Education.

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The Center on Education Policy receives nearly all of its funding from charitable foundations. We are grateful to the George Gund Foundation and the Phi Delta Kappa International Foundation, which provide the Center with general support funding that assisted us in this endeavor. The statements made and views expressed are solely the responsibility of the Center.

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## Appendix—List of Voucher Studies Reviewed

Title	Sponsor or Publisher and Year	Authors	Major Findings
<i>Milwaukee Parental Choice Program</i>			
<i>The Comprehensive Longitudinal Evaluation of the Milwaukee Parental Choice Program: Summary of Fourth Year Reports</i>	School Choice Demonstration Project, 2011	P. J. Wolf, University of Arkansas	<ul style="list-style-type: none"> <li>• Overall equal rates of academic growth for voucher and non-voucher students</li> <li>• Increase in voucher program participation over time</li> <li>• Greater high school graduation and college enrollment rates for voucher users</li> <li>• Somewhat higher achievement in public schools facing voucher competition</li> <li>• Cost savings for state but fiscal penalty for city</li> </ul>
<i>Graduation Rates for Choice and Public School Students in Milwaukee, 2003-2009</i>	School Choice Wisconsin, 2011	J. R. Warren, University of Minnesota	<ul style="list-style-type: none"> <li>• Voucher students more likely than public school students to graduate from high school</li> <li>• Still unclear whether higher graduation rates are direct result of practices taking place in voucher schools</li> </ul>
<i>School and Sector Switching in Milwaukee</i>	School Choice Demonstration Project, 2010	J. M. Cowen, University of Kentucky; D. J. Fleming, Furman University; J. F. Witte, University of Wisconsin-Madison & P. J. Wolf, University of Arkansas	<ul style="list-style-type: none"> <li>• Public school students switched schools more often than voucher students and generally moved to another public school. Voucher students less likely to switch schools but more likely to switch to public sector</li> <li>• Students who switched schools did worse academically in year before switch</li> <li>• Parents whose children switched schools reported lower levels of school satisfaction</li> </ul>
“Can Increasing Private School Participation and Monetary Loss in a Voucher Program Affect Public School Performance? Evidence from Milwaukee+”	<i>Journal of Public Economics</i> , 2008	R. Chakrabarti, Federal Reserve Bank of New York	<ul style="list-style-type: none"> <li>• Changes in Milwaukee voucher program in 1999 increased participation, public schoolsqmonetary loss per voucher student, and competition between public/private schools</li> <li>• Design and parameters of a voucher program affect its impact on public schools</li> </ul>

Title	Sponsor or Publisher and Year	Authors	Major Findings
<i>MPCP Longitudinal Evaluation Growth Study Baseline Report</i>	School Choice Demonstration Project, 2008	J. Witte, University of Wisconsin-Madison; P. Wolf, University of Arkansas; J. Cowen, University of Wisconsin-Madison; D. Fleming, University of Wisconsin-Madison & J. Lucas-McLean, Westat	<ul style="list-style-type: none"> <li>• Voucher parents generally more positive about children's schooling experience than public school parents</li> <li>• Lower incomes but higher levels of education among voucher parents than public school parents</li> <li>• Voucher parents received more information from churches and placed higher value on religious instruction than public school parents</li> </ul>
<i>Segregation Levels in Milwaukee Public Schools and the Milwaukee Voucher Program</i>	Foundation for Educational Choice, 2006	G. Forster, Foundation for Educational Choice	<ul style="list-style-type: none"> <li>• Milwaukee private schools in voucher program less segregated than public schools- unclear whether due to voucher program or other factors</li> </ul>
<i>Do Vouchers Lead to Sorting Even under Random Private School Selection? Evidence from the Milwaukee Voucher Program</i>	National Center for the Study of Privatization in Education, 2005	R. Chakrabarti, Harvard University	<ul style="list-style-type: none"> <li>• Private schools in voucher program employed random choice in selecting applicants, as mandated</li> <li>• Student sorting occurred based on ability but not on income level</li> <li>• Voucher program design can impact extent to which sorting occurs</li> </ul>
<i>School Choice and the Supply of Private Schooling Places: Evidence from the Milwaukee Parental Choice Program</i>	National Center for the Study of Privatization in Education, 2004	C. R. Belfield, H. M. Levin & H. L. Schwartz, Columbia University	<ul style="list-style-type: none"> <li>• 30% of private schools in voucher program are secular; remainder are religiously affiliated</li> <li>• Voucher students consolidated among certain schools</li> <li>• Supply of schools somewhat elastic. Number of secular schools increased steadily in response to vouchers; number of private increased quickly, then flattened</li> </ul>

Title	Sponsor or Publisher and Year	Authors	Major Findings
School Choice and School Competition: Evidence from the United States+	<i>Swedish Economic Review</i> , 2003	C. M. Hoxby, Harvard University	<p>Examined data from privately funded <i>and</i> publicly funded voucher programs. Findings from Milwaukee:</p> <ul style="list-style-type: none"> <li>• Milwaukee public schools increased productivity as a result of competition from vouchers</li> <li>• Vouchers did not skim best or worst performing students from the public schools</li> <li>• Public schools facing voucher competition made dramatic improvements in standardized test scores in grades 3 and 4 after 1998 policy changes; <del>credible</del> that improvements were caused by vouchers because gains in these schools greater than in comparison schools</li> </ul>
<i>Cleveland Scholarship and Tutoring Program</i>			
Differential Entry into a Voucher Program: A Longitudinal Examination of Families Who Apply to and Enroll in the Cleveland Scholarship and Tutoring Program+	<i>Education and Urban Society</i> , 2007	K. M. Paul, N. A. Legan & K. K. Metcalf, Indiana University	<ul style="list-style-type: none"> <li>• Students who apply for vouchers are representative sample of the general Cleveland public student population. Process of awarding vouchers focuses on low-income families, as intended</li> <li>• Students who were offered voucher but did not use it more likely to be minority and low-income</li> <li>• Students who received and used voucher more likely to have previously attended private school</li> </ul>
<i>Evaluation of the Cleveland Scholarship and Tutoring Program: Summary Report, 1998-2004</i>	Center for Evaluation & Education Policy, Indiana University, 2006	J. Plucker, P. Muller, J. Hansen, R. Ravert & M. Makel, Indiana University	<ul style="list-style-type: none"> <li>• Almost 90% of students who left program were minority students</li> <li>• Students who left voucher program had lower levels of achievement</li> <li>• Overall achievement for continuous voucher users did not differ significantly from that of public school counterparts</li> <li>• Majority of voucher users already attending private school in year immediately before receiving voucher</li> <li>• Teachers in public schools had completed more education than teachers in private voucher schools; in most other respect, teaching forces were similar</li> </ul>

Title	Sponsor or Publisher and Year	Authors	Major Findings
<i>The Evidence on Education Vouchers: An Application to the Cleveland Scholarship and Tutoring Program</i>	National Center for the Study of Privatization in Education, 2006	C. Belfield, Queens College, City University of New York	<ul style="list-style-type: none"> <li>• No academic advantage for voucher users; voucher students performed slightly worse in math</li> <li>• No difference in effect for African American students</li> </ul>
<i>Segregation Levels in Cleveland Public Schools and the Cleveland Voucher Program</i>	Foundation for Educational Choice, 2006	G. Forster, Foundation for Educational Choice	<ul style="list-style-type: none"> <li>• Cleveland private schools in voucher program less segregated than public schools- unclear whether due to voucher program or other factors</li> <li>• Private schools may be less segregated because students come from larger area</li> </ul>
<i>Florida Opportunity Scholarship Program</i>			
<i>Lost Opportunity: An Empirical Analysis of How Vouchers Affected Florida Public Schools</i>	Foundation for Educational Choice, Foundation for Excellence in Education & James Madison Institute, 2008	G. Forster, Foundation for Educational Choice	<ul style="list-style-type: none"> <li>• Availability of vouchers positively correlated with test score improvements in the worst-performing public schools</li> </ul>
<i>Feeling the Florida Heat? How Low-Performing Schools Respond to Voucher and Accountability Pressure</i>	Urban Institute, 2007	C. E. Rouse, Princeton University; J. Hannaway, Urban Institute; D. Goldhaber, University of Washington & D. Figlio, University of Florida	<ul style="list-style-type: none"> <li>• Students in schools receiving a failing grade showed greater gains in test scores than public schools that were otherwise equal- not clear whether due to vouchers or other aspects of Florida accountability reforms</li> <li>• Schools under greatest pressure from rating and voucher systems made changes to instructional practices</li> </ul>
<i>The Effects of Vouchers on Florida Public School Achievement</i>	Manhattan Institute for Policy Research, 2003	J. P. Greene & M. A. Winters, Manhattan Institute	<ul style="list-style-type: none"> <li>• Low performing schools in Florida improved in direct proportion to challenge from voucher competition</li> <li>• Schools with %B+grade and voucher threat improved most, followed by schools without %B+but with voucher threat</li> <li>• Test score gains less pronounced in schools that experienced stigma of %B+grade but no longer faced voucher competition did not show test score gains</li> </ul>

Title	Sponsor or Publisher and Year	Authors	Major Findings
<i>Washington, D.C., Opportunity Scholarship Program</i>			
<i>Evaluation of the DC Opportunity Scholarship Program: Final Report</i>	Institute of Education Sciences, U.S. Department of Education, 2010	P. Wolf, University of Arkansas; B. Gutman, Westat; M. Puma, Chesapeake Research Associates; B. Kisida, University of Arkansas; L. Rizzo, Westat; N. Eissa, Georgetown University & M. Carr, Westat	<ul style="list-style-type: none"> <li>• After 4 or 5 years in voucher program, no significant differences in achievement for voucher awardees and applicants who did not receive a voucher</li> <li>• Voucher awardees and users had higher graduation rates than their counterparts</li> <li>• Satisfaction was higher for parents of voucher students, but not for students themselves</li> </ul>
<i>Satisfied, Optimistic, Yet Concerned: Parent Voices on the Third Year of the DC Opportunity Scholarship Program</i>	School Choice Demonstration Project, 2007	T. Stewart, Symphonic Strategies; P. J. Wolf, University of Arkansas; S. Q. Cornman, Georgetown University & K. McKenzie-Thompson, Columbia University	<ul style="list-style-type: none"> <li>• Most parents who started program in its first year felt concerns about child safety mitigated enough to turn focus to academics and grades</li> <li>• Parents reported measuring students' academic success based on enthusiasm and attitude toward school, only secondarily on grades and test scores</li> </ul>
<i>Spreading Freedom and Saving Money: The Fiscal Impact of the D.C. Voucher Program</i>	Cato Institute & Foundation for Educational Choice, 2006	S. L. Aud, Foundation for Educational Choice & L. Michos, George Washington University	<ul style="list-style-type: none"> <li>• Current program saved D.C. \$8 million at time of study, mostly because it is federally funded, but partially because of efficiency of choice+</li> <li>• Program allows district administration to retain higher share of overall funding than it did previously, which is not efficient</li> </ul>
<i>Parent and Student Voices on the First Year of the DC Opportunity Scholarship Program</i>	School Choice Demonstration Project, 2005	T. Stewart, Symphonic Strategies; P. Wolf, Georgetown University & S. Cornman, Columbia University	<ul style="list-style-type: none"> <li>• High levels of satisfaction among parents and students in voucher program.</li> <li>• Most common reasons parents chose school were school safety and religious or values-based environment</li> <li>• Voucher schools had more challenging academics and stricter discipline than previous schools, according to students</li> </ul>

Title	Sponsor or Publisher and Year	Authors	Major Findings
<i>Ohio Statewide EdChoice Program</i>			
<i>Promising Start: An Empirical Analysis of How EdChoice Vouchers Affect Ohio Public Schools</i>	Foundation for Educational Choice, 2008	G. Forster, Foundation for Educational Choice	<ul style="list-style-type: none"> <li>• After 1 year, math and reading test scores either improved or did not change in public schools affected by vouchers</li> </ul>
<i>Literature Reviews and Critiques (multiple programs)</i>			
<i>Review of "The Comprehensive Longitudinal Evaluation of the Milwaukee Parental Choice Program: Summary of Fourth Year Reports"</i>	National Education Policy Center, University of Colorado, 2011	C. Belfield, Queens College, City University of New York	<p>Critique of fourth-year report of School Choice Demonstration Project. Criticisms of report:</p> <ul style="list-style-type: none"> <li>• Does not reference other academic literature on vouchers or context</li> <li>• Does not address criticisms of past reports from same study</li> <li>• Overstates positive effects of vouchers on high school graduation and college attendance</li> <li>• Overstates degree to which public school students are performing at higher levels as a result of voucher competition</li> </ul>
<i>A Win-Win Solution: The Empirical Evidence on How Vouchers Affect Public Schools (2<sup>nd</sup> edition)</i>	Foundation for Educational Choice, 2011	G. Forster, Foundation for Educational Choice	<p>Examined data from privately- <i>and</i> publicly-funded voucher programs:</p> <ul style="list-style-type: none"> <li>• 9 of 10 studies reviewed that examined academic outcomes for voucher students found positive or mixed impacts, 1 found no impact</li> <li>• 18 of 19 studies reviewed that examined impact of public and private voucher programs on schools found improvements, 1 found no impact</li> </ul>



Title	Sponsor or Publisher and Year	Authors	Major Findings
<p>Is There a Consensus on School Choice and Achievement?+</p>	<p><i>Educational Policy</i>, 2009</p>	<p>C. Lubienski, P. Weitzel &amp; S. Lubienski, University of Illinois</p>	<p>Examined data from privately funded <i>and</i> publicly funded voucher programs:</p> <ul style="list-style-type: none"> <li>• Research finds more complex picture than voucher advocates suggest; mixed findings, inconsistent patterns</li> <li>• Some choice advocates circumventing scholarly review process, misrepresenting strengths and weaknesses of methodologies, drawing questionable conclusions</li> </ul>
<p>School Vouchers and Student Achievement: Recent Evidence, Remaining Questions</p>	<p><i>Annual Review of Economics</i>, 2008</p>	<p>C. E. Rouse, Princeton University &amp; L. Barrow, Federal Reserve Bank of Chicago</p>	<p>Examined data from privately-funded <i>and</i> publicly-funded voucher programs:</p> <ul style="list-style-type: none"> <li>• Best research has found small and mostly insignificant achievement gains for students offered vouchers</li> <li>• Research on competition effects suggests comprehensive voucher program would not necessarily foster wide improvement</li> <li>• Key questions remain unanswered</li> </ul>
<p>Interpreting Voucher Research: The Influence of Multiple Comparison Groups and Types+</p>	<p><i>Journal of School Choice</i>, 2006</p>	<p>K. K. Metcalf &amp; N. A. Legan, Indiana University</p>	<ul style="list-style-type: none"> <li>• Families who apply for vouchers are motivated to invest time and effort. Because voucher users wanted voucher and exercised choice, they are likely to enhance academic impact of chosen school</li> <li>• Outcome of studies are affected by how treatment and control groups chosen; best studies use multiple comparison groups</li> </ul>
<p>The Potential Impact of Vouchers+</p>	<p><i>Peabody Journal of Education</i>, 2004</p>	<p>P. J. McEwan, Wellesley College</p>	<p>Examined data from privately funded <i>and</i> publicly funded voucher programs:</p> <ul style="list-style-type: none"> <li>• African American students offered vouchers experienced small achievement gains; gains not apparent for other racial or ethnic groups</li> <li>• Large-scale programs could lower achievement of public school students through sorting; no evidence this loss would be outweighed by possible gains made due to competition</li> </ul>