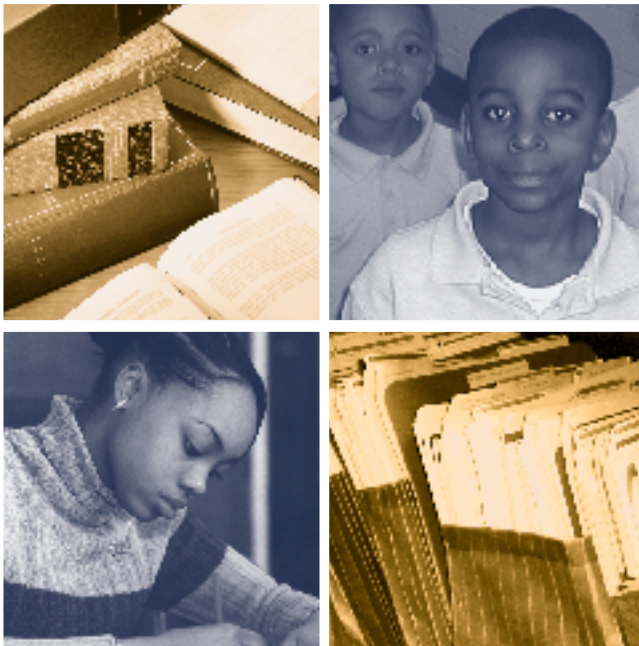


Survey of School Choice Research

S P R I N G 2 0 0 5



Gerard Robinson, Senior Fellow



MARQUETTE
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INSTITUTE FOR THE TRANSFORMATION OF LEARNING

About the Institute for the Transformation of Learning

Professor Howard Fuller, a former superintendent of the Milwaukee Public Schools, founded the Institute for the Transformation of Learning at Marquette University in 1995. The Institute's focus is on improving academic achievement in urban America through expanded educational options.

A wide range of foundations and individuals support the Institute with a common interest in achieving major educational reform. The Institute works effectively with a wide variety of individuals and groups throughout Milwaukee and the nation, including parents, students, school reform activists, pastors, policy makers, funders, business people, and educators to assist them in developing ideas and implementing plans that foster creative approaches to transforming learning for children.

The primary beneficiaries for all of the work of the Institute are low-income children and families in the City of Milwaukee, and children anywhere who are being ill served by the current systems of education.

From the Director

School choice in America is widespread, unless you're poor. Parents with means don't need independent research to validate their choices about where their children attend school.

It's a different story for low-income families. Without public support, their educational options are very limited. Understandably, elected officials who consider tax-supported school choice programs want objective information about whether such programs are effective.

Those officials, especially elected officials in Wisconsin, are the main audience for this report. It summarizes a growing body of scholarly research on school choice programs in Milwaukee and several other cities.

Opponents of school choice routinely claim there is no evidence about its effectiveness. As Gerard Robinson's survey shows, that is demonstrably untrue. He describes a range of studies that bear directly on several issues now being considered by Wisconsin legislators and the governor.

Robinson also reports on a major new study that will evaluate the 15-year old Milwaukee Parental Choice Program (MPCP). This study will be carried out by some of the nation's most respected education researchers. It will provide elected officials and the general public with vital information about the nation's oldest and largest tax-supported school choice program for low-income parents.



Howard Fuller, Ph.D., Director

About the Author

Gerard Robinson is a Senior Fellow at the Institute for the Transformation of Learning at Marquette University. His scholarly interests include school choice, civil rights, and federal and state policy development for urban school systems. Mr. Robinson has made formal and informal presentations about education and public policy before audiences in the United States and abroad including at the Harvard Kennedy School of Government, the Brookings Institution, Cato Institute, and the Summer Institute for Educators held at Oxford University. Mr. Robinson has worked in the California and Virginia legislatures and for the superintendent of the District of Columbia Public Schools. He earned a Master of Education degree from Harvard University, a Bachelor of Arts from Howard University, and an Associate of Arts from El Camino Community College. He is completing his doctorate at the University of Virginia.

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Introduction

The Milwaukee Parental Choice Program (MPCP) is the nation's oldest and largest tax-supported school voucher program for low-income families. Following its enactment in 1990, a range of public and private choice programs have been launched in other cities and states. This survey and Tables 1-5 review the major research that has been conducted on these programs. Two themes are notable.

First, there is an emerging consensus that school choice programs such as the MPCP can lead to: improved academic achievement, especially among African American students; positive results in public schools; and high levels of parent satisfaction.

Second, more research is needed to determine if these apparent benefits are definitive and sustained. **In that regard, a development of particular importance is the planned launch of a longitudinal MPCP study by the School Choice Demonstration Project, headquartered at Georgetown University.**

When Wisconsin legislators first debated the MPCP, some explained their opposition by saying there was “no evidence” that students in low-income families would benefit from expanded educational options. Of course, evidence of effectiveness never precedes any first-time experiment. Indeed, as with school choice, landmark reforms dating from Wisconsin's Progressive Era were untested when first considered. Today, for example, one-time “experiments” such as unemployment compensation and worker's compensation are nearly universal.

While information about school choice necessarily was limited in 1990, that is no longer so. In 2005, there is a growing body of research that is directly relevant to current legislative discussions about accountability in the MPCP and statutory barriers to program participation. Some of the studies described here have appeared in prestigious scholarly journals. Augmenting this peer-reviewed scholarship are papers from credentialed researchers presented at numerous academic forums from 1996 to the present.

Dr. Tom Loveless is director of the Brookings Institution's Brown Center on Education Policy. Summarizing the research on school choice, he wrote, “Although controversial, research generally shows positive effects for students using vouchers to attend private schools” (Loveless 2001, p. 36).

Dr. Paul Hill, another widely respected education scholar, chaired a year-long examination of school choice issues in 2003.

Perhaps not surprisingly, the increasingly positive findings about school choice coincide with a new approach to Milwaukee research by school choice opponents.

- In the early 1990s, choice opponents seized on (and distorted) preliminary findings that supposedly showed the MPCP to be ineffective.
- By the mid-1990s, as more data became available, peer-reviewed scholarship in respected journals showed positive Milwaukee results. Choice opponents responded with unfounded attacks on the credibility of several researchers, often trying to masquerade ideological aversion to school choice under the auspices of methodological integrity.
- In the late 1990s and early in this decade, still more research has suggested positive MPCP results. Choice opponents have responded by blocking - for the last five years - efforts to conduct an independent study of the MPCP. At the same time, these opponents claim that a lack of information about the MPCP means there is “no accountability.”

The shifting perspective of choice opponents likely reflects the one goal that drives them: to block school choice programs, regardless of evidence about possible benefits. However much opponents choose to pursue this strategy, the emerging research is crucial for elected officials and policymakers. For those with an open mind, reliable school choice research is an essential tool as they evaluate pending legislation.

So, what does the research say? What might be learned from the pending Georgetown study of the MPCP?

Evidence from Government Financed Voucher Programs: Parent Satisfaction, Student Achievement & the Impact on Public Schools.

Most debate about school choice involves five public programs that allow parents to enroll their children in private schools. These are: (1) the MPCP; (2) the Florida A+ Program; (3) the Florida McKay Scholarship Program; (4) the Cleveland Scholarship and Tutoring Program (CSTP); and (5) the District of Columbia Opportunity Scholarship Program. The focus here is on the first four programs created during the 1990s; this excludes the new Washington, DC program created in 2004, though consideration is given later to a privately-funded voucher program in that city.

Milwaukee, Wisconsin

Several scholars have examined the impact of the MPCP on parent satisfaction, student achievement, high school graduation, and performance of the Milwaukee Public Schools (MPS).

Caroline M. Hoxby, Ph.D.

Caroline Hoxby is one of the nation's leading economists in the areas of education and school competition. She is a former Rhodes Scholar, a current Harvard faculty member, and director of the Economics of Education program for the National Bureau of Economic Research. Hoxby's empirical research finds that the MPCP improves student achievement in MPS. Hoxby (2001) reached this conclusion after she compared student achievement of private and public school students in grades one to seven from 1996-97, before substantial competition from the MPCP, to 1999-00, after competition with the MPCP due to the inclusion of religious schools. Hoxby grouped Milwaukee Public Schools into: (1) schools with large numbers of students eligible for vouchers; and (2) schools with fewer students eligible for vouchers.

Hoxby noted that public schools in the first category "faced more competition" than did schools in the second category because they had more students to lose to the MPCP. Put another way, parents with voucher-eligible students enrolled in a public school may choose to enroll their child in a MPCP school, thus causing a Milwaukee public school to compete to keep the students – and the monetary amount she or he brings to that particular school.

Hoxby found that fourth grade student achievement in Milwaukee public schools that faced more competition from 1996-97 to 1999-00 improved more than did student achievement in public schools that "faced less competition" from the MPCP (or "faced no competition" from the MPCP). For example, the annual national percentile rank (NPR) gain in math was 6.3 points for Milwaukee public schools that

"faced more competition." The NPR annual Math gain for schools that faced less competition was 4.8 points and for Milwaukee public schools that faced no competition it was 3.5 points. Hoxby found a similar outcome in four other subjects (Table 1). Hoxby concluded that student achievement in Milwaukee public schools that faced the most competition improved more than students enrolled in schools that faced less competition. The NPR annual gain was smallest for students in Milwaukee public schools that faced no competition.

Two years later, Hoxby (2003) analyzed more current data. She concluded that fourth graders in Milwaukee public schools that faced "the most competition" scored 8.1, 13.8, and 8.0 NPR points better on Wisconsin-based math, science, and language tests, respectively, from 1996 to 2002. Hoxby again concluded that vouchers had a positive influence on Milwaukee public schools' productivity. Hoxby said, "Overall, Milwaukee suggests that public schools can have a strong, positive productivity response to competition from vouchers" (2003, p. 36).

From practical experience, the current MPS superintendent and his predecessor share Hoxby's view. Superintendent William Andrekopoulos (2002) said that school choice means, "we have many different models [from] which parents can choose.... That competitive nature has raised the bar for educators in Milwaukee to provide a good product or they know that parents will simply walk" away from MPS. Former Superintendent Spence Korté (2000) said, "I'm glad [vouchers are] here, because it gives me an entrée for what I need to do.... Hopefully this will force parents to make us lead with quality."

Jay P. Greene, Ph.D.

Jay Greene is a senior fellow at the Manhattan Institute and a recipient of a doctorate in government from Harvard. He is a frequently cited authority on school choice and high school graduation rates. Greene pioneered the development of a method for independently estimating graduation rates. His method has been used by Education Week's annual *Quality Counts* report in lieu of less reliable official graduation rates. Respected education advocates, from the Bill & Melinda Gates Foundation to the Education Trust, also have used Greene's method as a reliable independent estimate of high school graduation rates.

A recent example is a national report of public high school graduation and college readiness from 1991 to 2002 (Greene & Winters, 2005). Greene (2004) also has studied graduation rates in Milwaukee. He concluded after analyzing enrollment data from 1999 to 2003 that the graduation rate for students in the MPCP is 64 percent compared to 36 percent in Milwaukee public schools.

Greene applied what he calls a “hard test” to assess whether the higher MPCP graduation rate merely reflected a comparison of more able students with those who are less able. Greene compared graduation data from Milwaukee’s more selective high schools along with data for non-selective public high schools and MPCP high schools. The MPCP graduation rate of 64 percent compares favorably with both the selective public high school graduation rate of 41 percent and the non-selective public high school graduation rate of 34 percent. Green concluded, “The evidence clearly shows that students who receive a voucher to attend a private school in Milwaukee graduate high school at much higher rates than MPS students” (2004, p. 7).

John F. Witte, Ph.D.

University of Wisconsin-Madison political science professor John Witte (1991, 1992, 1993, 1994, 1995, 1998) was the principal investigator in a five-year study of the MPCP. In a later book, Witte (2000, p.6) concluded:

“Choice can be a useful tool to aid families and educators in inner city and poor communities where education has been a struggle for several generations....If programs are devised correctly, they can provide meaningful educational choices to families that now do not have such choices. And it is not trivial that most people in America ... already have those choices.”

In a separate summary, Witte (1998) identified high parental satisfaction with the MPCP, a consistent finding in research about other voucher programs (see Greene & Forster, 2003; Metcalf, West, Legan, Paul, & Boone, 2003; Myers, Peterson, Mayer, Chou, & Howell, 2000).

Of the MPCP, Witte (1998) said the following:

“...[T]here was evidence that [Milwaukee] Choice parents were very dissatisfied with their former (MPS) schools; there may have been good reason for it, as indicated by test scores taken in MPS prior to students enrolling in Choice (p.235). Witte also said, “Satisfaction of Choice parents with private schools was just as dramatic as dissatisfaction was with prior public schools...The results were a dramatic reversal - high levels of dissatisfaction with prior public schools, but considerable satisfaction with private schools”(p.237). A 1995 Legislative Audit Bureau (LAB) report supported Witte’s conclusions on parental involvement (Kava, 2005).

Witte (1998) concluded that MPCP student achievement was not substantially different from MPS students. Other scholars reached different conclusions than Witte, as described below.

Other researchers have reevaluated Witte’s data and reached different conclusions on the academic achievement of

students in the MPCP. Their findings are limited to early years (1990 to 1995) when participation peaked at just 802 students at 12 schools. In 2005 there are about 14,600 FTE students at 117 schools. New research, as planned by Georgetown’s School Choice Demonstration Project (SCDP), will help fill the vacuum of current information on academic achievement. This will include use of state standardized tests, which addresses a concern voiced by several legislators.

Cecilia E. Rouse

Princeton University economics professor Cecilia Rouse (1998) re-analyzed Witte’s data and identified an improvement in math scores for the MPCP students, but no difference in reading. Rouse concluded that, on average, students selected for, and students that enrolled in, the MPCP, “...likely scored 1.5-2.3 percentile points per year in math more than students in the comparison groups” (1998, p. 593). This notable gain of 1.5 to 2.3 extra percentile points in math per year over a four-year period is similar to the math gain identified by Greene, Peterson, and Du (1996) (Greene, 2000a).

Jay P. Greene, Ph.D., Paul E. Peterson, Ph.D. & Jiangtao Du

Greene (then at the University of Houston), Peterson (Harvard), and Du (Harvard) also re-analyzed Witte’s MPCP data (1996, 1998) and they too reached a different conclusion. They found that: (1) MPCP student achievement was no different than non-selected MPS students during the first two years; and (2) MPCP students scored higher than non-selected students in the third and fourth years of the program. Greene (2000a) said that after four years of participation, MPCP students gained 11 normal curve equivalent (NCE) points in math and 6 NCE points in reading when compared to students denied a seat in a MPCP school by lottery selection.

In summary, notwithstanding different conclusions noted above, an overview of MPCP research shows three important and consistent conclusions. First, Hoxby, Witte, Rouse, and Greene et al. believe the MPCP is an important educational alternative for poor families. Second, no scholar has found that student participation in the MPCP resulted in reduced academic performance. Third, parental satisfaction was strong (Table 1).

Author(s)	Parental Support	Math Gain	Reading Gain	MPCP: Good Option
Witte	•			•
Rouse	•	•		•
Greene, et al.	•	•	•	•

MPCP Evaluations Since the 1990s

The Legislative Fiscal Bureau recently released an informal paper about the MPCP (see Kava, 2005). While containing useful background material, there has not been a comprehensive study since the five-year Witte study and the 1995 and 2000 LAB reports. After the 2000 LAB report was issued, members of Milwaukee's school choice coalition asked the Wisconsin Legislature to support a longitudinal study overseen by the LAB. In the 2001-02 and 2003-04 legislative sessions, opponents of school choice blocked these proposals, instead proposing a broad regulatory regime that they said would treat private schools in the MPCP more like public schools. Had the Legislature approved, and the governor signed, a longitudinal study bill when first proposed, policymakers and the general public would have tangible information today. But the possibility of such a study is within arms reach.

Georgetown University's School Choice Demonstration Project

A leading group of education researchers has formed the School Choice Demonstration Project (SCDP) headquartered at Georgetown University. After a national competition, the U.S. Department of Education chose the SCDP to be part of a team that is evaluating the new Washington, DC voucher program. The SCDP recently has explored the feasibility of conducting a major longitudinal evaluation of the MPCP. SCDP has made a preliminary decision to conduct the study, subject to discussion on data availability with MPS and the Wisconsin Department of Public Instruction (DPI).

The pending SCDP study would not require legislative and gubernatorial approval, and thus is not vulnerable to efforts by opponents to block more research. The study promises to provide substantial new information on the operation of the MPCP and its impact on students and on the broader public education system in Milwaukee. In the interim, Wisconsin legislators and policy analysts can review other research findings described below suggesting a range of positive benefits from choice.

Florida

Jay P. Greene, Ph.D.

Florida's A+ Program was created in 1999 by bipartisan support in the Florida Legislature. Parents with a student enrolled in a public school that receives two failing grades (i.e., a letter grade F) within a four-year evaluation cycle can transfer her or him to another public school or to a private school. To estimate the impact of this sanction on public schools that received a letter grade F, Greene (2001b) analyzed student scores in reading, math, and writing on the Florida Comprehensive Assessment Test (FCAT) from 1999 to 2000. Similar to the findings in Hoxby's

study (2001, 2003) of the impact vouchers had on student improvement in MPS, Greene found that the prospect of vouchers improved the average scores in the FCAT schools that received a failing letter grade.

For example, the reading score for students enrolled in schools that received a letter grade B improved by an average of 4.85 points from 1999 to 2000. The improvement score for students enrolled in a school that received a letter grade D was 10.02. But the improvement score for students enrolled in a school that received a letter grade F was 17.59 points. This improvement score is higher than the combined improvement score of students enrolled in schools that received a letter grade C or D.

Greene's research also revealed that students enrolled in a letter grade F school improved their scores by an average of 25.66 points in math and by .87 points in writing. This is higher than the gain of 16.06 points in math and .52 points in writing by students enrolled in a letter grade D school. In fact, students in a letter grade F school improved their test scores in every category (Table 2). In regard to the statistical significance of student improvement in math, reading, and writing in the F schools, Greene said, "...the gains observed in the F schools differed from those in the other schools by an amount that is very unlikely to have been produced by chance" (2001b, p. 7). In other words, vouchers provided an incentive for school leaders to improve outcomes of students attending Florida's lowest-performing public schools.

Greene and Winters (2003) conducted a follow-up study of the A+ program. The results were the same as the first study, but with a twist. Students who were eligible for a voucher in the first study had been offered a voucher to attend a private school at the time of the second study because their public school received two failing grades. Greene and Winters said, "Thus, Voucher Eligible Schools are currently competing against private schools in the market for students. They are the group with the greatest incentive to improve and also the greatest likelihood of being harmed by vouchers if vouchers are in fact harmful" (2003, p. 3). Most of these voucher students are poor; 88 percent qualify for free or reduced lunch; and the majority are minorities; only 1 percent are white. These findings undercut the claim that choice "creams" off the advantaged students.

After analyzing data, Greene and Winters found that students enrolled in voucher eligible schools improved on the FCAT math test by 9.3 scale score points more and by 10.1 points more in reading, than gains made by the rest of the public schools in Florida between 2001-02. By comparison, students enrolled in a public school that always received a letter grade D, but never a letter grade F, improved by 2.2 scale score points in math and 2.5 points in reading. What is very interesting

is the score received by students enrolled in “formally threatened schools.” These schools received a letter grade F during the 1998-99 school year, but have not received another since. Their students’ FCAT math scores dropped (-2.2) points and reading scores dropped (-2.5) points in 2001-02. Greene and Winters concluded that, “...the more in danger a school is of having to compete with vouchers, the greater score gains they make on the FCAT...” (2003, p. 7).

The McKay Scholarships Program for Children with Disabilities was signed into law in 1999. It began as a pilot project for students in Sarasota, Florida, but expanded in 2000 to the entire state. It is the only voucher program of its type in the country to target public school students with disabilities. In 2004-05, the program enrolled 13,737 students. Greene and Forster (2003) conducted the first empirical evaluation of the McKay Scholarship Program.

The focus of the evaluation was on parental satisfaction. The authors compared the services offered in the McKay program to services offered in the public school where a student was previously enrolled. Greene and Forster found that: (1) 92.7 percent of parents were satisfied with services of the McKay program compared to only 32.7 percent who were satisfied with services in the public school system; (2) 86 percent of parents said their child received all services promised under the federal education law in the McKay program; and (3) over 90 percent of parents who left the program said it should remain available to parents who need it.

In summary, an overview of Florida school choice research shows that the A+ program provides important educational options for poor minority students trapped in Florida’s failing public schools, while the McKay program serves the needs of disabled students. The research also proves that competition from vouchers improved student outcomes in the public school sector (Table 2).

Cleveland, Ohio

Several scholars have examined the impact of the Cleveland Scholarship and Tutoring Program (CSTP) in terms of parent satisfaction, student achievement, and performance of the Cleveland Municipal Schools (CMPS). The CSTP was created in 1995 and is similar to the MPCP in that only low-income city residents are eligible for the publicly funded voucher.

Kim Metcalf, Ph.D.

Professor Kim Metcalf, formerly of Indiana University, was the principal investigator of the CSTP. He reported (2003), “When students’ academic achievement measures

are adjusted to account for the influence of minority status and family income, there are virtually no differences in performance between students who use a scholarship and students who attend public schools.”

Jay P. Greene, Ph.D., William G. Howell, Ph.D. and Paul E. Peterson, Ph.D.

Greene, Howell and Peterson (1997, 1998) evaluated the first year of CSTP using the California Achievement Test (CAT) as their assessment measure. Greene et al. concluded that scores for choice students in kindergarten through third grade, on average, increased by 5.4 percentile points in reading and by 15.0 percentile points in math during 1996-1997. Choice students’ reading scores in grades first to third increased by 5.4 percentile points and by 12.8 percentile points in math. In particular, choice students in the second grade improved scores on a language test by 2.9 points and third graders improved language test scores by 12.9 points. During a second year evaluation, Peterson, Howell, and Greene (1999) found that CSTP students experienced a 7 percentile point increase in reading and a 15 percentile point increase in math on the CAT from 1996 to 1998. In both years parental satisfaction was high.

In summary, research revealed at best, either gains in student achievement, or at worst, no difference between voucher and non-voucher students. Neither study indicated an adverse effect on student achievement for voucher participants (Table 3).

Evidence from Privately Financed Vouchers: Parental Satisfaction and Student Achievement from Four Cities

Evaluations of privately funded voucher programs are directly relevant to the MPCP. Most participants in these programs come from low-income families, live in central cities, and many previously attended public schools. In general, the socioeconomic background of eligible families, and the academic characteristics of qualifying students, is similar to those in Milwaukee. Therefore, empirical data from privately funded voucher programs will add to the base of information that elected officials and other policymakers in Wisconsin might find useful.

The studies summarized below involve privately funded voucher programs in New York City, Dayton, Ohio, Washington, DC, and Charlotte, North Carolina. Some of the studies looked at data from more than one city. The findings from combinations of cities are listed separately. These studies are noteworthy in their heavy reliance on what is known as the “gold standard” in evaluating the academic achievement of participants. This refers to data comparing participant test scores with students who applied for, but were randomly rejected by lottery from, receiving scholarships.

New York City

The School Choice Scholarship Foundation (SCSF) sponsored the New York City voucher program in 1996 for students entering grades one to four. In 1997, SCSF provided a voucher in value up to \$1,400 to 1,300 students from low-income families. The voucher was renewable for up to four years at a religious or secular private school (Mayer, Peterson, Myers, Tuttle, & Howell, 2002). To test the efficacy of this program, three evaluations were conducted, and results published, between 1998 and 2002.

In the first evaluation of the New York City voucher program, Peterson, Myers & Howell (1998) concluded that the estimated impact scholarships had on choice students in grades two to five is 1.6 national percentile ranking (NPR) points in math and 1.7 points in reading. Peterson et al. said, "The impact of using a scholarship to attend a choice school is 2 percentile points in math and 2.2 percentile points in reading. These effects are statistically significant." (1998, p. 26). During the second year evaluation, Myers, Peterson, Mayer, Chou and Howell (2000) found that choice students in grades three to six had the same test scores as their public school peers who applied to the voucher program, but were rejected. In the third year evaluation, Mayer, Peterson, Myers, Tuttle and Howell (2002) concluded that the voucher program had no significant impact on test scores of Latino students. But African American choice students who were offered a voucher earned a math and reading composite score of 5.5 percentile points higher than African American students not offered a voucher. Barnard, Frangakis, Hill, and Rubin (2003) confirmed the finding that vouchers helped African American students in New York City (but not others), while Krueger and Zhu (2004) questioned the impact that vouchers had on African Americans. In all three evaluations, parental satisfaction with choice schools was high (Table 4). As far as a policy recommendation, Johnson and Kafer (2002) said the results from New York City offer evidence to legislators and others about the importance of using vouchers to improve opportunities for poor students.

Dayton, Ohio

In 1998, Parents Advancing Choice in Education (PACE) sponsored a voucher program for low-income students in grades K-12 who live in Dayton and in parts of Montgomery County, Ohio. The PACE program opened in September of 1998 and offered a scholarship to 515 public school students and to 250 students already enrolled in private school. The annual PACE scholarship was valued up to \$1,200 to help defray private school costs, and the scholarship was available for at least four years (Peterson, Greene, Howell, & McCready, 1998).

After evaluating test scores of students in grades two to eight who were previously enrolled in public school, Howell and

Peterson (2000) concluded that African American students scored 7 national percentile points higher in math and 5 points higher in reading on the Iowa Test of Basic Skills (ITBS) than did the public-school control group. However, test scores of non-African American students (i.e., white and ethnic students) did not differ statistically in math or reading when compared to the public-school control group (Table 5).

Washington, DC

The Washington Scholarship Fund (WSF), established in 1993, expanded its funding base in 1998 to provide vouchers to Washington, DC students entering grades K-8 (Peterson & Howell, 2001). The annual scholarship was valued up to \$2,200 to help defray private school costs, and the scholarship was available for at least three years (Peterson, Greene, Howell, & McCready, 1998). After evaluating the voucher program during its first year, Wolf, Howell and Peterson (2000) concluded that choice students in grades two to five outperformed public school students by 3 percentile points in reading and 7 percentile points in math. Choice students in grades six to eight scored 2 percentile points higher in math, though reading scores trailed public school students by 8 percentile points.

In the second year of the evaluation, Wolf, Peterson and West (2001) concluded that African American choice students who switched to a private school from a public school scored 9 NPR points higher in combined math and reading scores when compared to public school students. In a more fine-grained analysis of the second-year data, Wolf (2003) concluded that choice students in private schools receive educational advantages by having dedicated teachers, demanding homework, and exposure to higher income students (Table 5). Although the test-score gains of the choice students did not persist in the third year of the evaluation, when a large number of study participants left their private or public schools and converged on DC's many new charter schools, parental satisfaction in the voucher program was strong in all three evaluations, and African American students are the main participants in the WSF program. And now that Washington, DC has a publicly-funded voucher program, scholars will have more data to assess the impact vouchers have on student achievement.

Dayton and Washington, DC

Former President Bill Clinton vetoed a bill in 1998 that would have created a publicly funded voucher program for Washington, DC students. The WSF Pilot Program helped meet the demand for educational options by providing scholarships to over 1,000 low-income students. When Peterson et al. conducted an initial evaluation of the voucher program in Dayton and Washington, DC, parental satisfaction was identified as very high. So was choice

students' belief in the positive climate of their school. (Peterson, Greene, Howell & McCready, 1998) (Table 5).

New York City, Dayton, and Washington, DC

In an empirical study of test scores in the privately-funded voucher programs in New York, Dayton and DC, Howell, Wolf, Peterson, and Campbell (2000a) concluded that vouchers had no negative or positive effect on whites and ethnic groups in all three cities, however, Howell et al. found that African Americans in the first year outscored their public school peers by an average of 3.3 NPR points in both math and reading. After two years, the NPR score difference rose to 6.3 points. In a city-by-city comparison, Howell, Wolf, Campbell & Peterson (2002) concluded that African Americans in New York City scored 4.2 NPR points higher than their public school peers, 6.5 NPR points higher in Dayton, and 9.2 NPR points higher in Washington, DC (Table 4).

Charlotte, North Carolina

In 1999-00, 388 Charlotte students received a scholarship in value up to \$1,700 to attend private elementary and secondary schools. Greene's (2000b, 2001a) research about the Charlotte voucher program showed that after only one year's time student outcomes on ITBS math and reading tests improved between 5.4 to 7.7 percentile points compared to public school students. Three-quarters of the students were African American, and most were less advantaged than the representative student in Charlotte. Greene (2001a) also concluded that students switching from public school to private school improved student performance (Table 4). This is similar to outcomes identified by Howell, Wolf, Peterson and Campbell (2000a) and Howell and Peterson (2002) in New York City, Dayton, and Washington, DC (Table 4).

In summary, research on privately funded vouchers in four cities shows that they improve outcomes for African American students in particular (Tables 4 & 5).

Conclusion

A growing body of evidence suggests strongly that vouchers: improve academic performance, especially among African American students; increase parent satisfaction and involvement; and appear to have a positive impact on student achievement in public schools.

The evidence is immediately pertinent to public discussion and legislative deliberation on the MPCP. In evaluating whether to lift barriers to MPCP participation, legislators are no longer in the position of having little or no information about possible benefits of school choice. Further, in addressing the issue of academic accountability, the imminent longitudinal study planned by Georgetown's SCDP will provide the public and elected policymakers with substantial new information.

Such encouraging conditions are diametrically at odds with claims from opponents of the MPCP. For example, in 2002 (when most research cited here was publicly available), the president of the Wisconsin Education Association Council (WEAC) said, "There is no evidence showing how students in voucher schools are faring academically...[T]here is no way to assess voucher student progress" (Johnson, 2002). Since then, ironically, WEAC has been the single most vocal opponent of conducting more research on the MPCP.

According to Paul Hill, chair of the National Working Commission on Choice in K-12 Education, "Choice is one way a state can meet its obligation to ensure that children get a good education" (2003, p. 25).

TABLE 1: MILWAUKEE STUDIES

Author: John Witte (1998)

Conclusions: No significant difference between MPCP and non-MPCP student test scores. Parental satisfaction was high.

Author: Cecilia E. Rouse (1998)

Conclusions: Students selected in the MPCP scored approximately 1.5 to 2.3 extra percentile points in math per year, but no difference was shown in reading, when compared to applicants not selected for participation in the MPCP and to a sample of MPS students.

Authors: Greene, Peterson & Du (1996, 1998)

Conclusions: Choice students' achievement was no different than non-selected MPS students during the first two years. Afterward, choice students scored higher than non-selected students in the third and fourth years of the program.

Author: Greene (2000a)

Conclusions: Greene said that after four years of participation in the MPCP, academic gains were quite large. For example, MPCP students gained 11 normal curve equivalent (NCE) points in math and 6 NCE points in reading when compared to students denied a seat in a MPCP school due to lottery selection.

Author: Greene (2004)

Conclusions: The Milwaukee choice school graduation rate of 64 percent is higher than the selective public high school graduation rate of 41 percent and the non-selective public high school graduation rate of 34 percent.

Author: Hoxby (2001)

Conclusions: MPS students enrolled in schools that faced more competition from MPCP from 1996-97 to 1999-00 outscored their peers enrolled in Milwaukee public schools that faced less competition.

	Public Schools with MORE Competition	Public Schools with LESS Competition
Annual Change.....NPR Math Score	+6.3	+4.8
NPR Science Score	+7.0	+5.8
NPR Social Studies Score	+4.2	+2.4
NPR Language Score	+2.5	+1.5
NPR Reading Score	+0.8	-0.5

Author: Hoxby (2003)

Conclusions: Hoxby said Milwaukee public elementary school productivity increased between .9 and 1.7 national percentile points per thousand dollars in schools that faced competition from the MPCP.

TABLE 2: FLORIDA STUDIES

Author: Greene (2001b)

Program: Florida A+ Program

Conclusions: Students enrolled in a letter grade F school improved their scores by an average of 25.66 points in math and by .87 points in writing. This was higher than the gain of 16.06 points in math and .52 points in writing by students enrolled in a letter grade D school. In fact, students enrolled in letter grade F schools improved their test scores in every category.

Authors: Greene & Winters (2003)

Program: Florida A+ Program

Conclusions: Students enrolled in voucher eligible schools improved on the FCAT math test by 9.3 scale score points more and by 10.1 points more in reading, than gains made by the rest of the public schools in Florida between 2001-02. Students enrolled in a public school that always received a letter grade D, but never a letter grade F, improved by 2.2 scale score points in math and 2.5 points in reading.

Authors: Greene & Forster (2003)

Program: Florida McKay Scholarship

Conclusions: Authors said 92.7 percent of parents were satisfied with services of the McKay program compared to 32.7 percent who were satisfied with services in the public school system.

TABLE 3: CLEVELAND STUDIES

Authors: Greene, Howell & Peterson (1997)

Conclusions: Choice students in kindergarten through third grade averaged 5.4 percentile points higher in reading and 15.0 percentile points higher on the math concepts test.

Choice students' reading scores in grades first to third increased by 5.4 percentile points and by 12.8 percentile points on the math concepts test.

Choice students in the second grade improved their scores on a language test by 2.9 points and third graders improved by 12.9 points. Overall, parental satisfaction was high.

Authors: Greene, Howell & Peterson (1998)

Test: California Achievement Test

Conclusions: Choice students scored, on average, 8.6 percentile points higher in math and 5.7 percentile points higher in reading after one year in the program. Parental satisfaction was high.

Authors: Peterson, Howell & Greene (1999)

Test: California Achievement Test

Conclusions: Choice students experienced a 7 percentile point increase in reading and a 15 percentile point increase in math from 1996 to 1998. Parental satisfaction was high.

Authors: Metcalf, West, Logan, Paul & Boone (2003)

Conclusions: Parental satisfaction with the program is strong.

TABLE 4: NEW YORK CITY, DAYTON, WASHINGTON DC, and CHARLOTTE STUDIES

Authors: Peterson, Myers & Howell (1998) **City:** New York

Conclusions: The impact of using a scholarship on student achievement is 2 percentile points in math and 2.2 percentile points in reading.

Authors: Myers, Peterson, Mayer, Chou & Howell (2000) **City:** New York

Conclusions: Choice students in grades three to six had the same test scores as public school students. Parental satisfaction was high.

Authors: Mayer, Peterson, Myers, Tuttle & Howell (2002) **City:** New York

Conclusions: African American choice students who were offered a voucher earned a math and reading composite score of 5.5 percentile points higher than African American students not offered a voucher.

Author: Howell (2004) **City:** New York

Conclusions: The so-called self-selection bias of private schools is driven by a host of parental-centered interests for children, not by evil motive.

Authors: Howell, Wolf, Peterson & Campbell (2000a) **Cities:** New York, Dayton, & Washington DC

Conclusions: African American choice students outscored their public school peers by an average of 3.3 NPR points during the first year and by 6.3 NPR points during the second year. Parental satisfaction was high.

Authors: Howell, Wolf, Campbell & Peterson (2002) **City:** New York, Dayton & Washington DC

Conclusions: Second-year NPR test score gains for African American voucher students over their public school peers were 4.2 points in New York City, 6.5 points in Dayton, and 9.2 points in Washington, DC.

Authors: Howell & Peterson (2002) **City:** New York, Dayton & Washington DC

Conclusions: The African American three-city average NPR gain was 3.9 points for year one, 6.3 points for year two, and 6.6 points for year three.

Author: Greene (2001a) **City:** Charlotte

Conclusions: Scores of choice students in grades two to eight increased 5.9 percentile points in math and 6.5 percentile points in reading after one year. This was higher than the public school gains. Parental satisfaction was high.

TABLE 5: DAYTON & WASHINGTON DC STUDIES

Authors: Peterson, Greene, Howell & McCready (1998) **City:** Dayton & Washington DC

Conclusions: Choice students in each city positively rated the education climate at their school. Parental satisfaction was strong.

Authors: Wolf, Howell & Peterson (2000) **City:** Washington DC

Conclusions: Choice students in grades two to five outperformed public school peers by 3 percentile points in reading and 7 percentile points in math. Choice students in grades six to eight scored 2 percentile points higher in math, though reading scores trailed public school peers by 8 percentile points. Parental satisfaction was high.

Authors: Wolf, Peterson & West (2001) **City:** Washington DC

Conclusions: Choice students who switched from a public school to a private school scored 9 NPR points higher in combined math and reading scores when compared to public school peers.

Author: Wolf (2003) **City:** Washington DC

Conclusions: Choice students in private schools receive educational advantages by having dedicated teachers, demanding homework, and exposure to higher income students.

Authors: Howell & Peterson (2000) **City:** Dayton

Conclusions: African American students scored 7 national percentile points higher in math and 5 national percentile points higher in reading than did the public school control group.

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