The Impact of School Vouchers on Student Achievement: A Research Update*

In 1998 and 1999, Keystone Research Center released two reports surveying research on the track record of school vouchers with respect to student achievement.¹ (In this Appendix, all footnotes appear at the end.) The research available at that time on the impact of voucher programs came primarily from Milwaukee and Cleveland. This research found no strong evidence that vouchers improve student achievement.

Since the late 1990s, there has been surprisingly little additional research on the educational impact of vouchers. One reason for this is that advocates for vouchers have sometimes opposed the collection of data and commissioning of independent evaluations. The rest of this Appendix briefly summarizes the findings of research on the achievement impact of vouchers and of private schools more broadly.

Milwaukee Voucher Program

- As noted in KRC’s 1998 report, the first “five legislatively mandated evaluations of the Milwaukee program found no achievement gains for voucher students.”

- As noted in KRC’s 1999 report, 1995 legislation terminated the official evaluation of the Milwaukee voucher program. The program now enrolls 20,000 students and cost $130 million in 2009.²

- As noted in KRC’s 1998 report p. 15-21, Harvard University’s Paul Peterson, a voucher advocate, and his team re-analyzed the state’s Milwaukee voucher evaluation and found that by the third and fourth year of attending a private school, voucher users outperformed the public school control group in reading and math. The researchers’ own tables showed a statistically significant result only in math and only in the fourth year. Moreover, their data showed that voucher students were a more advantaged group than the comparison students in public schools.³

- A second re-analysis of the state’s Milwaukee voucher evaluation by Princeton University’s Cecilia Rouse found no effect from vouchers in reading and a small effect in math for voucher students who had remained in the program over the four-year period.⁴

- A follow-up study by Rouse found that low-income students attending Milwaukee public schools served by a state class-size reduction and enrichment program significantly outperformed voucher students in reading and scored as well in math.⁵

- In 2007, a fresh evaluation of the Milwaukee voucher program began. The evaluation team includes: Patrick Wolf, Endowed Chair in School Choice at the University of Arkansas; Jay Greene, a former co-author of voucher advocate Paul Peterson’s; and John Witte, the head of the earlier evaluation of the Milwaukee voucher program. After four years, the new Milwaukee evaluation program has found no achievement advantage for voucher students.

* This update also appears as Appendix A in the Keystone Research Center report No Accountability: Pennsylvania’s Track Record Using Tax Credits to Pay for Private and Religious School Tuition. Both the full report and this document can be accessed separately online at http://keystoneresearch.org/EITC-accountability
• The summary of the new Milwaukee evaluation team’s fourth year reports concludes (p. 8): “…to this point we have observed no significant effects of the MPCP on the rates of student gains in reading and math achievement.”

• The Milwaukee evaluators did find that voucher students had a five- to seven-percentage point higher rate of college enrollment. One possible explanation for this is “peer effects.” If existing students at voucher schools are more socio-economically advantaged than students at public schools that voucher recipients left (having higher income, parents with more education, higher rates of graduation and college attendance etc.), this can contribute to gains for voucher students.

Cleveland Voucher Program (started in 1996)

• In 2007, the Cleveland voucher program enrolled over 6,000 students at a cost of $18 million. Most of the cost of the program has been funded by reducing funds to Cleveland public schools. In 2004, the cost to the district was $11,901,887. Ohio contracted with a team of researchers led by Kim Metcalf of Indiana University to evaluate the Cleveland voucher program. The first evaluation by this team, reported on in KRC’s 1999 report (pp. 16-19), found no significant differences between third-grade voucher students and public school students.

• The most recent results on the Cleveland voucher program were released in October 2004. In it, the Metcalf team found no achievement differences in five out of six subjects—and no difference in overall achievement—between voucher students who had attended private schools from kindergarten through grade 5 and the two public school comparison groups (one applied for vouchers but did not receive them, the second did not apply for vouchers). This evaluation, moreover, did not control for family income differences between public and private school students; if private school students are more affluent, controlling for this would improve the relative performance of public schools.

• At the beginning of first grade, students who had entered the Cleveland voucher program as kindergartners had significantly higher achievement than the public school comparison groups. By the end of the first grade, the public school groups had closed the gap with students in private school.

• Overall, students in the public school comparison groups made greater gains from first through fifth grade than the voucher students, even though the voucher students were less likely to be low income.

• A 2006 evaluation by Clive Belfield found that there was no academic advantage for voucher users and no advantage for private school students. There was a small advantage in math for Cleveland public schools.

Florida Voucher Program (started in 1999; ruled unconstitutional by the state Supreme Court in 2006)

• Any student enrolled in a public school that was deemed “failing” for two of the prior four years was eligible for a private school voucher. The Florida Legislature never provided for an evaluation of the program.
• In 2001, a study by Jay Greene of the conservative Manhattan Institute found that the mere threat of losing students to vouchers caused public schools rated as failing in 1999 to improve.\textsuperscript{14} To test Greene’s claim, Doug Harris of the Economic Policy Institute analyzed achievement in Florida’s schools before and after the threat of vouchers was introduced. There were no clear differences in the improvement of low-achieving (or other) schools pre- and post-vouchers, contradicting Greene’s claim.\textsuperscript{15}

**District of Columbia Voucher Program** (enacted by Congress in 2004)

• This five-year, $14 million voucher demonstration project was intended to target low-income students in schools most needing improvement. Congress provided for an evaluation of the program, beginning in its initial year (2004-05). The U.S. Department of Education awarded the evaluation contract to Westat, an independent firm, and Patrick Wolf, then at Georgetown and now Endowed Chair in School Choice at the University of Arkansas.

• Only 74 of 1,359 voucher lottery winners came from public schools that fit the “priority” category defined by Congress. How many of these 74 students were among the 1,013 students who actually gained admission to a private school is unknown.\textsuperscript{16}

• Wolf’s final analysis, after four years, found no difference in achievement between voucher and public school students overall, or for students from schools “in need of improvement.”\textsuperscript{17}

**Ohio EdChoice Vouchers**

• Ohio’s EdChoice program provides vouchers for up to 14,000 students in “chronically underperforming” public schools to attend a private school.\textsuperscript{18}

• An early study by the Friedman (as in free-market economist “Milton”) Foundation found “substantial beneficial effects on academic outcomes in public schools from EdChoice vouchers, and no harmful effects.”\textsuperscript{19} An independent review of the Friedman Foundation study found that the Friedman report failed to demonstrate any measurable effect in the majority of situations analyzed.\textsuperscript{20}

**Vouchers for Students with Disabilities**

• Florida’s John M. McKay Scholarships for Students with Disabilities Program, started in 2001, is the largest state voucher programs for students with disabilities. It does not require student testing or public reporting of achievement data by private schools. Nor has the state provided for an evaluation. By 2009, about 21,000 students with disabilities received McKay vouchers at a cost of nearly $139 million.

• An analysis by Education Sector notes that students do not have to take the annual state tests administered to public school students, and McKay schools are not required to report any information on student outcomes. The report concluded “Under the current structure of the program, taxpayers have almost no knowledge of how their money is being spent, and neither taxpayers nor parents have access to solid information about the performance of different McKay schools.”\textsuperscript{21} Sound familiar to observers of Pennsylvania’s EITC program?
A report released by the conservative Manhattan Institute concluded that outcomes for students in public school special education programs improved one to three percentiles with increased exposure to voucher opportunities. An independent review criticized the Institute’s failure to analyze the academic progress of the voucher students themselves. The review also questioned how small numbers of students leaving public schools (an average of four per school) would encourage substantial changes in public schools.

Ohio’s autism voucher program also does not allow analysis of student outcomes. However, research by Policy Matters Ohio indicates that schools used selective admissions requirements and that students using vouchers came disproportionately from upper-income areas.

**Tax Credit Voucher Programs**

As is the case in Pennsylvania, more students nationally currently receive vouchers under tax credit programs than under voucher programs paid for directly by state funds. While these programs are funded by diverting tax dollars, they are privately administered and there is very little research on their effectiveness—across the board, not just in Pennsylvania.

The text of this KRC report notes that the most rigorous study of student achievement in such a program, David Figlio, of Northwestern University, found little difference between Florida voucher student performance and similar public school student performance, with that difference favoring public schools. He concludes “participants’ test score gains are in the same general ballpark, if on average modestly lower, as are those of comparison students in the public sector.”

The body of this report also notes the 2009 journalistic investigation of Arizona’s tax credit program, the oldest in the nation. This investigation found several improprieties, including that almost two-thirds of all voucher organizations kept more funds for overhead than allowed under state law. Most Arizona voucher organizations do not use poverty as a criterion for distributing funds.

**Voucher Programs in Other Countries**

International studies also highlight that voucher programs provide limited, if any, benefits for needy students and can increase social and economic segregation among schools. Vouchers in Chile, for example, have had a negative effect on student achievement, while broadening the achievement gap between low-income and middle- and upper-income students.

**Privately Financed Voucher Programs**

KRC’s 1999 report also reviewed the experience of private voucher programs. Among the studies of non-publicly funded voucher programs, a 2002 U.S. Government Accountability Office (GAO) identified only three that were “rigorous enough to meet our criteria for inclusion.” These studies of programs in Washington, D.C.; Dayton, Ohio; and New York City all included Paul Peterson on the research team.
• Both in their reports and in the press, the Peterson research teams claimed to find large achievement gains for African-American voucher students, but not for whites or Hispanics. The GAO review concurred that vouchers were ineffective for whites and Hispanics in all three cities; it also found that in Washington, D.C., and Dayton, there was no difference in the achievement of African-American voucher users and that of the public school comparison group either.

• The GAO concluded that only the results of the New York City study were valid, showing achievement gains for low-income African-American students who used vouchers while in grades 1-4. In January 2003, however, Alan Krueger and Pei Zhu of Princeton published an analysis invalidating the New York study as well. Krueger and Zhu found, among other problems, that the Peterson team had excluded scores for about 40% of the students in the sample and had used a novel classification of student race. When the data were corrected, the Peterson team’s “miracle” results for African-American voucher students in New York disappeared. “The safest conclusion,” concluded Krueger and Zhu, “is probably that the provision of vouchers did not lower the scores of African-American students.”

Achievement Outcomes for Private vs. Public Schools

Some voucher proponents believe that private schools are inherently better than public schools, in part because the marketplace competition ensures that. What does research tell us about the accuracy of this belief?

• Although the average student scores for private schools are higher than those for public schools, when the comparison is adjusted to account for student characteristics such as race and ethnicity, disability status, and identification as an English language learner, public school students perform as well as, and even better than private school students.

• Researchers at the University of Illinois analyzed the test scores of more than 340,000 4th and 8th grade students in 13,000 traditional public schools, charter schools, and private schools, on the 2003 National Assessment of Educational Progress (NAEP), commonly called “the nation’s report card.” They found that “demographic differences between students in public and private schools more than account for the relatively high raw scores of private schools… After controlling for these differences, the presumably advantageous ‘private school effect’ disappears, and even reverses in most cases.”

• An analysis of the same data done for the National Center for Education Statistics (NCES) found that, after adjusting for selected student characteristics, there was virtually no difference in the scores of public and private school students in grade-four reading and grade-eight mathematics. The adjusted school average was higher for public school students in grade-four mathematics and lower in grade-eight reading.

• Analysis of two national data sets (the Education Longitudinal Study and the National Educational Longitudinal Study) found little difference between public and private high school student performance.
• Harold Wenglinsky of Columbia University analyzed a sample of low-income students from inner city high schools using data from the National Educational Longitudinal Study of 1988-2000 and found:
  • Students attending independent private high schools, most types of parochial high schools, and public high schools of choice performed no better on achievement tests in math, reading, science, and history than their counterparts in traditional public high schools.
  • Students who had attended any type of private high school ended up no more likely to attend college than their counterparts at traditional public high schools.

• Private Catholic schools run by holy orders (such as Jesuit schools) do have some positive academic effects. There are very few such schools, however; most Catholic schools are run by their diocese, not by an order.35

• Here in Pennsylvania, 34 private schools had their students take the PSSA tests in 2009-10. These schools did not score as well, on average, as the traditional public schools. Among traditional public schools 77% of students taking the PSSAs scored at the advanced or proficient levels in Math, while 71.5% scored advanced or proficient in Reading. Among the private schools, 59% of students scored advanced or proficient in Math, while 60.4% did so in Reading. Since this was not a representative sample and has not been compared with public schools using statistical controls (e.g., for family and school socio-economic differences), the comparison does not prove anything about public vs. private schools. It does bolster the case that we can’t simply assume that private are better than public schools. It also bolsters the case for building accountability and rigorous evaluation into the EITC scholarship program and any future voucher program.

**Competitive Effects of School Vouchers**

Voucher proponents have theorized that voucher systems will create competitive pressure on public schools thus inducing them to improve the achievement of the students who remain. Like other voucher research, the studies of such competitive effects have been equivocal.36

• A review of 17 studies by Greg Forster of the Friedman Foundation maintains that voucher programs force public schools to compete and thereby improve their performance. Christopher Lubienski of the University of Illinois analyzed Forster’s report and found that it “selectively reads the evidence in some of [the 17] studies, the majority of which were produced by voucher advocacy organizations.”37 Lubienski included a detailed description of Forster’s misrepresentation of the results of a study of the Milwaukee voucher program.38

• One recent study of Florida’s voucher program by David Figlio and Cassandra Hart of Northwestern University found very small (between one and two-hundredths of a standard deviation) increases in student test scores related to their various measures of private school competition. They also report results that these competitive effects increased for the first 5 years of the program, but then declined in the final year for which they had data.39
REFERENCES FOR APPENDIX A


10 Summary Report, pp. 6-8, 10-12; Technical Report, pp. 40-61, 77-130.

11 Ibid.

12 See especially the Technical Report.


15 Doug Harris, “What Caused the Effects of the Florida A+ Program: Ratings or Vouchers?” in Martin Carnoy, ed., *Do School Vouchers Improve Student Performance?* (Washington, D.C.: Economic Policy Institute, 2001). To test Harris's findings against Greene's, another set of researchers examined achievement gains in Texas and North Carolina—two states with high-stakes and high-publicity accountability systems that do not include vouchers—and compared them with those in Florida. Although they found them flawed, the researchers used Greene's methods. In both of the non-voucher states, the researchers independently found that achievement gains in low-performing schools were as high as or higher than those in comparable Florida schools. While this did not necessarily prove that ratings caused school improvement, it did disprove Greene's claim that the cause was the threat of vouchers. See Amanda Brownson, "A Replication of Jay Greene's Voucher Effect Study Using Texas Performance Data," in Carnoy 2001, and Helen F. Ladd and Elizabeth J. Glennie, “A Replication of Jay Greene's Voucher Effect Study Using North Carolina Data,” in Ibid. Greene's claim that vouchers caused school improvement in Florida is also contradicted by David N. Figlio and Cecelia Elena Rouse in a study using Florida data; see "Do Accountability and Voucher Threats Improve Low-Performing Schools?" National Bureau of Economic Research, revised August 2004, at http://www.aeweb.org/annual_mtg_papers/2005/0109_0800_0303.pdf.


23 John T. Yun, Review of *The Effect of Special Education Vouchers on Public School Achievement: Evidence from Florida's McKay Scholarship Program* (Boulder and Tempe: Education and the Public Interest Center & Education Policy Research Unit, 2006).
28 When the report was published, the office was named the U.S. General Accounting Office.
30 Ibid, see p. 17 especially for a summary.
38 Ibid, pp.5-6.