School choice for poor children is likely to be an issue in many state and congressional races. Lawmakers and parents need to pay close attention to the quality of academic evaluations of school choice programs. Evaluations of the program in Milwaukee (Wisconsin) provide a case in point. In 1990, Milwaukee instituted the nation's first publicly funded school choice program. Data released in February 1996 about the Milwaukee program indicates that the reading scores of choice students in their third and fourth years were, on average, from 3 to 5 percentile points higher than those of comparable low-income public school students. Mathematics scores were, on average, 5 and 12 percentile points higher. This evaluation, conducted by J. Greene and P. Petersen was designed to correct for methodological errors of previous evaluations. Their results confirm a growing collection of evidence that shows that private school vouchers are the key to educational success for students who are financially trapped in failing inner-city public school systems. (Contains 12 references.) (SLD)
HOW MILWAUKEE’S CHOICE PROGRAM HELPS POOR CHILDREN SUCCEED IN SCHOOL

By Dorothy Hanks
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School choice for poor children is likely to be an issue this year in many state and congressional races. The idea that low-income parents should be able to select the schools—public or private—they think best for their children strikes at the very heart of America’s educational status quo. Lawmakers and parents therefore need to pay close attention to the quality of academic evaluations of school choice programs, including the samples used and methodologies employed. Evaluations of the Milwaukee, Wisconsin, school choice experiment are a case in point.

In 1990, Milwaukee instituted the nation’s first publicly funded school choice program, giving low-income parents vouchers to send their children to private schools. In February 1996, data from the Milwaukee school choice experiment were made available. Professors Jay P. Greene of the University of Houston Center for Public Policy and Paul E. Peterson of Harvard University’s Program in Education Policy and Governance have conducted a detailed assessment of this information.¹ Their study, released at a conference this summer, reveals that:

- The reading scores of choice students in their third and fourth years were, on average, from 3 to 5 percentile points higher, respectively, than those of comparable low-income public school students.

- Math scores, on average, were 5 and 12 percentile points higher for the third and fourth years, respectively.

The implications of these findings are extremely significant. As Greene and Peterson note, “If similar success could be achieved for all minority students nationwide, it could close the gap separating white and minority test scores by somewhere between one-third and more than one-half.”²


2 Ibid., p. 4.
Before the release of the Greene and Peterson study, the Milwaukee school choice program had been evaluated each year by the man who designed it: political science professor John Witte of the University of Wisconsin at Madison. Witte had concluded that "This school experiment [has] not yet led to more effective schools.... Choice creates enormous enthusiasm among parents... but student achievement fails to rise." Because Witte and his fellow researchers did not release their data for secondary analysis by other members of the academic community until this year, their evaluation was the sole source of information on the test performance of Milwaukee school choice students. Many academic specialists, foundations, and policymakers therefore had concluded that while school choice clearly satisfied parents, it was not effective in improving the education of low-income central-city students.

Based on their own examination of the data, however, Greene and Peterson found that the statistical model used by Witte and his colleagues failed to replicate the "character" of the MSCP experiment. The most significant flaw was that Witte's group compared choice school students with a much less disadvantaged cross-section of Milwaukee public school students. Witte had compared the choice students to a general sample of public school students, a group which was significantly different in several ways. For example, the choice students were more likely to come from households headed by poor, minority, single mothers, making any comparison between them and the public school sample misleading. Correcting for these errors, Greene, Peterson, and their colleagues at the University of Houston and Harvard designed their own study—a study which confirms a growing collection of evidence showing that private school vouchers are the key to educational success for students who are financially trapped in failing inner-city public school systems.

HOW THE HOUSTON-HARVARD STUDY WAS DONE

Greene and Peterson designed an analysis that would correct for the methodological errors of the Witte study. The difference between their conclusions and Witte's is the result of a scientific methodology made more rigorous in several ways. Among them:

- **Random assignment of students to the test and control groups.**

  The Houston-Harvard analysis compared the choice students with students who applied to the choice program but were not admitted. The mandate imposed on the Milwaukee voucher program by the Wisconsin state legislature required Milwaukee's choice schools, if oversubscribed, to admit applicants at random; the result was two randomly selected groups of students: those who were chosen to participate in the program and those who were not. The system thus set up a unique opportunity for researchers to compare students in the choice program with public school students from otherwise eligible families whose parents had made an effort to seek an education for them at a private school. This improved "control" for the extent to which families value education and desire to participate in the program meant that any differences in outcome could reasonably be attributed to the experimental condition of choice.

- **Controlling for grade, year, and school.**

  Students seeking to participate in the Milwaukee choice program applied each year for a place in a particular grade in a particular school (with spots, as indicated above, to be assigned randomly if the program was oversubscribed). The evaluation data allowed the Houston-Harvard researchers to control for both the grade to which a student applied and the year of application. Although the specific schools to which students applied were not included in the data, re-
searchers were able to control for that variable by taking into account the ethnicity of applicants. Over 80 percent of the choice students attended one of three schools; and virtually all of the students who applied to one of these schools were Hispanic, while virtually all who applied to the other two were African American. The Witte study failed to take into account that the selection of students was only random by grade, school, and year.

* Measuring academic effects as cumulative.

Rather than merely measure the changes in test scores from year to year as Witte did, the Houston-Harvard researchers measured the cumulative effect of the choice program on test scores for each child for the entire time the child was in the program. Controlling for gender, the test scores of choice students were compared with those of “non-selected” students who had applied the same year for the same grade and were of the same ethnicity. The effects of choice schools on test performance were small during the first and second years; during the third and fourth, however, choice students made substantial gains. According to statistical tests, positive results of this magnitude would not appear had Milwaukee choice schools had no effect on academic performance. One of the most egregious errors of the Witte study was that it controlled for a student’s test score in the prior year, in effect controlling for the outcomes of the choice program and incorrectly assuming that students learn at uniform rates.

* Testing for possible errors due to limited data.

As Professor Witte states, “In terms of demographic characteristics, non-selected... students [and choice students] came from very similar homes.... They were also similar in terms of prior achievement scores and parental involvement.” However, the data available to the Houston-Harvard researchers covered only 76.2 percent of the selected students and 58.7 percent of the non-selected students. To ensure that these two percentages accurately represented the selected and non-selected groups overall, the Houston-Harvard researchers made several additional analyses:

**Family background.** Controlling for family background was difficult. Both test and background questionnaire data were available for only 36.7 percent of the families of selected students and 21.8 percent of the families of non-selected students. Even among those parents who did return a questionnaire, many did not respond to all of the items. Trying to balance between controlling for additional factors and preserving the size of the sample, the Houston-Harvard team controlled for family income and the mother’s education. Those factors were chosen for two reasons: 1) Past academic research shows that these factors strongly affect a child’s educational performance, and 2) most parents who returned questionnaires responded to those particular questions. Adding these two variables to the analysis decreased the sample size but changed the results very little. This confirmed that there were no significant differences in family background between those for whom complete background data were available and those for whom they were not.

**Prior test scores.** Two groups randomly assigned to two categories, as was the case in this study, can be assumed to be similar. Thus, the Houston-Harvard study did not control for test scores prior to the Milwaukee program. Because of missing data, however, the researchers checked and found that at the time these two groups applied to the Milwaukee choice schools, the available data showed that they had essentially the same test scores. In fact, those who were not selected scored one percentile point higher in both reading and math. Although the sample size for this analysis was reduced by the fact that test scores at the time of application

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5 Since the number of white students and other minority students for which information was available was so sparse that no reliable results could be obtained, these students were deleted from the analysis.

were available only for a limited number of applicants, a statistical analysis was run on the figures that were available. With only one exception—the fourth year reading scores, which had to be based on only 26 observations—the results controlling for prior test scores were not substantially different from those found in the main analysis. This confirmed that there were no significant academic differences between those students whose prior test scores were reported and those whose scores were not reported.

Potential "selection effects." The Houston-Harvard study's main analysis clearly revealed statistically significant effects in the third and fourth years of a student's program. This presents two possibilities: 1) Either students benefit in measurable ways from the choice experience only after participating in the program for three or more years, or 2) students remain in the program for three to four years only if they are benefiting from it. To determine which was the case, the Houston-Harvard researchers analyzed the first and second year scores of students for whom test results were also available in years three and four. The effects of the first two years were no different from the effects for all first and second year students. This would imply that the positive effects of school choice accumulate over time and are not due to different student retention rates.

OTHER RELEVANT STUDIES

The Houston-Harvard analysis is more methodologically sound than previous studies of the Milwaukee school choice program. More important, its basic conclusions are supported by a growing body of research on the value of private schools among urban poor and minority children.

- In 1990, the Rand Corporation of Santa Monica, California, examined the academic performance of children in New York City's public and Catholic school systems. The results were startling: Some 95 percent of Catholic high school students graduated, for example, while only 25 percent made it out of the public schools. Similarly, 75 percent of Catholic students took the Scholastic Aptitude Test, but only 16 percent took it in the public schools.7

- A 1982 study headed by education scholar James Coleman of the University of Chicago found that students in Catholic schools were one grade level ahead of their public school counterparts in mathematics, reading, and vocabulary.8

- In 1993, the New York State Department of Education found that Catholic schools with 81 percent to 100 percent minority composition outscored New York City public schools with the same percentage of minority enrollment in Grade 3 reading (+17 percent), Grade 3 mathematics (+10 percent), Grade 5 writing (+6 percent), Grade 6 reading (+10 percent), and Grade 6 mathematics (+11 percent).9

- Although the 1993 New York State Department of Education study also found that Catholic and public schools have similar percentages of students from troubled families with low incomes, Anthony Bryk from the University of Chicago reports that Catholic schools expel far fewer children.10

- Derek Neal, a professor of economics at the University of Chicago, in a study conducted for the National Bureau of Economic Research in Cambridge, Massachusetts, found that among urban

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9 Stern, "The Invisible Miracle of Catholic Schools," p. 16.
10 Ibid.
blacks and Hispanics nationwide, the probability of high school graduation rises from 62 percent to 88 percent when a student is moved from a public to a Catholic high school. The probability of college graduation for these children rises from 11 percent to 27 percent. In addition, when compared with their public school counterparts, minority students in urban Catholic schools can expect roughly 8 percent higher wages in the future simply because they are more likely to complete high school and college.11

CONCLUSION

School choice is becoming increasingly popular, and polls show it is most popular among urban African Americans—the very group served by a program like Milwaukee's. Because black parents are less satisfied with public schools, they want an alternative. A recent study by the Joint Center for Political and Economic Studies, a Washington-based think tank that specializes in research on African Americans, found that only 5.7 percent of African Americans rated their local public schools “excellent,” compared with 19.9 percent of the general population. Conversely, 16.5 percent of the black sample rated their schools “poor,” compared with only 7.4 percent of the general population.12

Contrary to the claims of the education establishment, choice does not leave children of poor families in failing schools. Rather, it is their ticket out. Schools of choice have proven their ability—and their desire—to improve the academic outcomes of poor children. Recently, Cardinal John J. O'Connor of New York offered to take the lowest performing 5 percent of students in New York City's public schools into New York's Catholic schools, where they can succeed. This also would be a huge financial advantage for taxpayers. New York's Catholic schools educate students at about a third of the cost of public schools. A 5 percent transfer would save New York City over $250 million a year.13

The academic success of Milwaukee choice students, as well as other students who have been fortunate enough to escape failing urban schools, is now a matter of record. It is time for state legislators and Members of Congress to give other lower-income children the same opportunity.

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