

Chicago Fed Letter

School choice and competition

On April 27–28, the Federal Reserve Bank of Chicago held the first of three conferences on education reform. Highlighting the importance of this issue for the Midwest, Bank President Michael Moskow noted in his opening remarks that we can not separate our region's competitiveness in the world economy from the skills and education of our work force. This *Chicago Fed Letter* summarizes the presentations at the conference, which focused on initiatives to promote choice and competition in elementary and secondary education.¹

The pace of education reform has greatly accelerated in recent years, with the development of charter schools, voucher programs, and state tax credits. Today, some 35 states have passed charter legislation, with Michigan having the most extensive program among Midwest states. Since 1994, for-profit educational organizations have gained popularity, primarily through contracts with charter school directors seeking to outsource school management to private entities. Privately funded voucher programs have grown from 17 nationwide in 1995 to a current level of 41. In addition, some states are providing tax credits to help families meet the cost of educating their children outside the public school system.

Why might we believe that schools can do much better? Steve Rivkin, Amherst College, presented U.S. trends in spending and academic performance. U.S. students lag behind many of their peers in the other G-7 countries in science and math, despite substantial increases in real spending. While rising expenditures have produced decreases in class size and a higher ratio of school administrators to pupils, they have not yielded much in educational product. Wage increases

for teachers, especially women, have lagged behind those of their similarly educated peers, and have probably reduced the average quality of the teaching work force. Rivkin's research on Texas schools finds that individual teacher quality matters greatly to student outcomes. He also finds a great deal of variation in teacher quality within schools, suggesting that administrators do not do a very good job in either hiring or retention. If vouchers or expanded choice can increase the overall effectiveness of teachers, such programs may succeed in raising average school quality.

Do private schools improve student performance?

Summaries of separate studies of the Milwaukee Parental Choice Program, the nation's first (1990) and longest voucher experiment, were presented by John Witte, University of Wisconsin–Madison, and Cecilia Rouse, Princeton University. The program currently provides vouchers of approximately \$5,000 per year from state government revenues for low-income students to attend private schools in Milwaukee. The program now includes religious private schools, but the studies, based on the first four years of the program, did not include religious private schools because they were not eligible until the program was expanded in 1995.

Witte and Rouse agree that there were no differences in reading achievement between either the private school "choice" students and a random sample of non-choosing Milwaukee Public School (MPS) students; or between choice students and students who applied to choice but were not selected to attend private schools (and later attended MPS instead). However, they disagree on math results. While both Witte and Rouse found a significant math

difference when choice students were compared to non-selected choice applicants, Witte argued that the non-selected applicants were a contaminated control group because so many dropped out of the study and the sample sizes were so small that a few students in a single year created the achievement difference. Further, when Witte compared the choice students to MPS students, he found a slight difference favoring choice students, but the difference was not statistically significant. In contrast, using different models, Rouse found a significant difference in math test scores when comparing choice students to MPS students.

Witte was pessimistic about producing valid random experiments of voucher programs in the future and about the ability of evaluators to address problems inherent in education experiments, such as self-selection, student mobility, and selection/retention behavior of participating schools.

Rouse emphasized that while the evidence suggests that providing vouchers to low-income students to attend private schools may improve their achievement in math, these results hold on average; however the "choice" schools did not generate higher performance than all of the public schools. In fact, the math test scores of students in a subset of public schools characterized by smaller classes grew as much as those in choice schools and their reading test scores grew faster. She also cautioned that while the results of programs such as that in Milwaukee can potentially provide evidence on whether vouchers would improve participating students' achievement, they cannot assess whether vouchers would improve the outcomes of non-participants by putting competitive pressures on the public schools, nor can they gauge the supply response of private schools. A larger-scale voucher program would

likely be necessary to generate any such effects.

Because voucher programs are still in their infancy and because of the problems of experiment design, some researchers opt to study the large number of longstanding private schools. Should private schools prove to deliver better education at lower cost after controlling for socioeconomic differences, then expansion of school choice programs may be more easily justified. Joseph Altonji, Northwestern University, focused his study on Catholic schools, which account for over half of all private school enrollment in the U.S. Students that attend Catholic schools typically perform better on national test scores and are more likely to attend college than public school students. So can we say that Catholic schools are more effective than public schools? Not exactly. The positive outcomes enjoyed by those attending Catholic school may be caused by family characteristics as well. Parents that are highly motivated or that have abundant resources may be more likely to choose private schools for their children. Altonji controls for these differences in his study of Catholic and public school eighth graders. In contrast with other recent studies, he finds little evidence that Catholic schools are more effective than public schools with respect to student achievement. However, Catholic schools do show reduced dropout rates and increased college attendance relative to public schools.

Paul Petersen, Kennedy School of Government, is evaluating the New York School Choice Scholarships Program, which, he noted, is the first program of its kind to incorporate many aspects of a laboratory experiment. The research project sponsored 1,300 scholarships to allow low-income students to transfer from public to private schools. The scholarships are worth up to \$1,400 annually and can be redeemed for at least three years at both religious and secular schools. Applications from over 20,000 students were received between February and late April 1997. Scholarship recipients were selected in a lottery held in May 1997 and began school the following fall. The results of the experiment after one year support the effectiveness of vouchers. Students

who received vouchers scored higher in math and reading (2 percentile points) than students in a control group. The results are more impressive for fourth and fifth grade students, with differences of 4 percentile points in reading and 6 percentile points in math. Petersen also finds that parents of scholarship students are more satisfied with their children's education than those of the control group—a finding that is echoed across most such studies. In all, 58% of scholarship parents express the highest satisfaction with "what's taught in school," compared with only 18% of the control group. Other results include increased racial integration, reduced disciplinary problems, and reduced class size within scholarship schools.

Sammis White, University of Wisconsin-Milwaukee, discussed lessons to be learned from PAVE (Partners Advancing Values in Education), a privately funded voucher program in Milwaukee. First, there is a great deal of support for the scholarships and the schools participating, even among families who left the program. Second, academic gains may not be the only appropriate measure of a school's success. Parents are balancing multiple goals, perhaps trading off some academic gains for discipline, location, and friendliness. Finally, there is a limit to how universal a partial-scholarship program can become. PAVE was able to give scholarships to all students who applied and qualified. That number stabilized at about 4,300 students in a school district of over 100,000 students, more than 70% of whom qualified for PAVE on the basis on income. Only a portion of those who qualified could ultimately come up with the rest of the tuition and the desire. Partial scholarships are a boon to the students and schools that participate, but the scale of participation may not be sufficient to challenge the public schools.

Systemic effects of privatization

While these studies provide evidence for the effectiveness of vouchers, they do not assess the impact of such programs on competition in education and on the broader school population. David Figlio, University of Florida, finds that, in a system of choice associated with tuition payments, students

become sorted across private schools on the basis of both income and ability. The highest-tuition private school tends to have the highest income and highest ability students. Figlio also finds a negative relationship between income (or tuition paid) and ability within a given private school. These findings suggest that stratification would be pervasive in a private system. However, it remains difficult to assess how such stratification compares with the existing public school system, in which significant geographic stratification arises from patterns of disparate housing and family income. Other models predict that having more private school options decreases the tendency of wealthier families to move out of lower income neighborhoods.

Aside from stratification, researchers explore the effects expanded choice may exert on public schools through competition. In theory, the presence of private schools could raise or lower the level of student achievement, either by introducing a degree of competitiveness within the school district or by drawing the most capable students away from the local public schools. William Sander, DePaul University, analyzed private schools in Illinois to determine their influence on public schools. Sander pointed out that an above-average percentage of the school-age population in Illinois attends private schools, and Chicago has one of the largest Catholic school systems in the country. He finds that private schools do not improve or weaken public school achievement.

Some analysts are skeptical that private sector competition alone will motivate public schools toward higher achievement. Fredrick Hess, University of Virginia, argued that the school system lacks the appropriate incentives to take advantage of increased competition within a school district. Citing an extensive study of public schools in Milwaukee, he outlined several obstacles to reform—teachers are not evaluated on their performance; system leaders do not have the ability to hire and fire teachers to encourage greater productivity; and administrators are not rewarded based on school performance or market share within the district.

Another way to learn about the effects of system-wide choice and competition

is to study school systems with those features in other countries. Helen Ladd, Duke University, discussed New Zealand's decade of experience with self-governing schools and, since 1991, with full parental choice. With an ethnically diverse population of 3.7 million people, New Zealand may be compared with the median U.S. state. Since 1991, parents have had the right to choose their child's school (including traditional public schools and Catholic schools). Controlling for demographic changes, Ladd finds that choice increases ethnic polarization. Schools that initially served concentrations of minority and low-income groups experienced the largest enrollment declines as both white and minority students fled to schools serving a more advantaged mix of students, with white students moving somewhat more aggressively. The result is probably better schools for many students but worse schools for the remainder. Ladd observed that the combination of school autonomy, strong competitive incentives to improve, and somewhat higher funding for struggling schools was not enough to enable them to compete successfully for students. Recently, the New Zealand Ministry of Education has acknowledged that some form of direct intervention is needed. Many schools are now oversubscribed and are allowed to pick the students they will enroll. Thus, the system of parental choice is moving toward a system of choice by schools.

Choice, competition, and accountability

To improve public schools, and to preserve the public interest in educational provision, state legislatures and local school districts across the Midwest have adopted a panoply of reforms. Susan Heegaard, Minnesota Chamber of Commerce, discussed Minnesota's experience with tax credits and deductions. In 1997, following its rejection of a school voucher program, Minnesota became the first state to establish a statewide program for K-12 education tax credits and deductions. The deduction covers some public and private school expenses, including tuition, family computer purchases, tutoring, and academic summer camp. It is available to all taxpayers. A tax credit is

available to lower income families who would not substantially benefit from the deduction. Heegaard noted that there are a few wrinkles to be ironed out before the true effects of the program can be assessed. For one, the state needs to improve awareness of the program. And because low-income families must wait for reimbursement, several local lending programs are assisting families with up-front funding.

Kevin McCarthy, state representative from Illinois, discussed an active bill to allow a state income tax credit on tuition paid to private and parochial schools. (The Illinois Education Tax Credit Program recently passed the Illinois House and Senate and is expected to go into effect in January 2000.) The legislation aims to expand parental choice; take pressure off the public schools; and bolster the sagging finances and enrollments of Catholic schools, which serve some of the poorest neighborhoods in Chicago.

Leslie McGranahan, Federal Reserve Bank of Chicago, discussed the Illinois proposal, which establishes a refundable tax credit of up to \$500 per family for 25% of tuition, lab, and book fees above \$250. In contrast to Minnesota's tax credit, the program is independent of family income. It will provide some relief to parents already sending their children to private schools, but the small size of the credit reduces the likelihood of families, especially low-income families, using it to send their children to private schools. Accordingly, McGranahan expects the program to be largely ineffective in increasing competition in the school system.

To promote competition and innovation, many states are authorizing charter schools, which are funded through the public sector but are largely free from the restrictive regulations and management of public sector agencies. In return, the schools remain accountable to the public sector for improving student performance. Eight charter schools opened in Michigan during the 1994-95 school year. The number had increased to 138 by 1998-99, although charter schools account for only 2% of all

Michigan K-12 students. Michigan spent an estimated \$6,100 per pupil for charter schools during the 1998-99 school year.

Gary Miron, The Evaluation Center at Western Michigan University, discussed the results of a state-mandated evaluation of the western/central charter schools during the first four years. Miron noted that it is still too early to judge the initiative, and the schools are very diverse, making generalizations difficult. The evaluation finds only limited innovations in instructional practices, but greater advances in operational practices and governance. Second, school leaders and companies play a strong role in the initiative relative to parents and teachers. Third, the availability of charter schools may have heightened segregation by race, class, and ability. Fourth, teachers, parents, and students are generally quite satisfied with their charter school. Finally, there is no strong evidence yet that the schools, as a group, are performing better than the local public schools.

There is evidence of a positive competitive impact on school districts with charters, reflected by the introduction of all-day kindergarten, increased adult supervision on the playgrounds, more before and after school programs, increased efforts to involve parents, increased marketing of public schools, greater emphasis on foreign languages,

Michael H. Moskow, *President*; William C. Hunter, *Senior Vice President and Director of Research*; Douglas Evanoff, *Vice President, financial studies*; Charles Evans, *Vice President, macroeconomic policy research*; Daniel Sullivan, *Vice President, microeconomic policy research*; William Testa, *Vice President, regional programs and economic editor*; Helen O'D. Koshy, *Editor*.

Chicago Fed Letter is published monthly by the Research Department of the Federal Reserve Bank of Chicago. The views expressed are the authors' and are not necessarily those of the Federal Reserve Bank of Chicago or the Federal Reserve System. Articles may be reprinted if the source is credited and the Research Department is provided with copies of the reprints.

Chicago Fed Letter is available without charge from the Public Information Center, Federal Reserve Bank of Chicago, P.O. Box 834, Chicago, Illinois 60690-0834, tel. 312-322-5111 or fax 312-322-5515. *Chicago Fed Letter* and other Bank publications are available on the World Wide Web at <http://www.frbchi.org>.

ISSN 0895-0164

and more attention to standardized test scores. The most negative impact is a loss of funding for the local schools. And, while many charters cater to minorities and at-risk pupils, several appear to strategically target families with profitable socioeconomic characteristics.

In a study of factors influencing charter school location in Michigan, Gerhard Glomm, Michigan State University, finds that a district's racial composition is important. However, lower test scores also seem to lead to more charter schools, indicating dissatisfaction by parents whose children attend public schools. Spending by public schools, excluding teacher salaries, does not seem to be an important factor, suggesting that higher administrative salaries and support services do not improve parent satisfaction.

John Ayers, Leadership for Quality Education, argued that charter schools in Chicago are successful because they promote autonomy with accountability. The schools are not bound by hundreds of rules and regulations, as well as union contracts, but must maintain high student performance or be closed down. In addition, the sense of ownership fostered by these schools provides strong performance incentives for the practitioners. Demand for such schools is extremely high, but the supply is limited. To maintain the high standards associated with charter schools, only a small number of

school developers have been allowed the charter option. Ayers warned that the increasing demand for charter schools has created an opportunity for those who would take advantage of prospective students. To prevent such developments, he recommended a strong accreditation process, with public oversight and the ability to quickly close bad schools.

Some opponents of publicly funded voucher-type grants to families with children believe that the outcomes of publicly funded education, whether provided by private or public sector, should be highly accountable to (and shaped by) the interests of the general public. "Contracting out" educational choice offerings through a public authority (e.g., school district or state board of education) would seem to fulfill this balance between accountability on the one hand and choice and competition on the other. One example of such an initiative was presented by Roger Kilpatrick, Peoria Public Schools. In spring 1999, the district entered into an agreement with a for-profit educational management company to provide and manage the educational program for two of its primary schools, beginning in August 1999. The district has experienced a dramatic change in the demographics of its student population over the last 20 years. By early 1999, enrollment had decreased from over 27,000 students to less than 16,000 and the population of low-income students had increased

from 19% to almost 60%; and the district faced a growing challenge in providing services to students with significant needs. Among several alternatives, the district reviewed the Edison Partnership School program. With a pledge of support from a private foundation, the district decided to explore the concept, seeking input from parents, staff, and the community. The Edison Project promised both a longer school day and school year with a curriculum based upon nationally recognized best practices. Concerns were voiced over the potential loss of neighborhood schools, lengthening the school day and year, transfer of some teachers, and the involvement of a for-profit company.

The approval of the two schools targeted the ideas of school choice, educational best practices, the integrated approach of different educational programs, and accountability of an outside firm to its host. The program will be monitored and evaluated by the district's Research Department, as well as by the Edison Project, and any future expansion of the program will be based upon both demonstrated and measured results.

—William A. Testa
Vice president and senior economist

—Surya Sen
Associate Economist

¹An extensive conference summary will be available on the Federal Reserve Bank of Chicago's Web site, www.frbchi.org, in July 1999.

Return service requested

(312) 322-5111

Chicago, Illinois 60690-0834

P.O. Box 834

Public Information Center

FEDERAL RESERVE BANK OF CHICAGO

Chicago Fed Letter

PRESORTED
FIRST-CLASS MAIL
ZIP + 4 BARCODED
U.S. POSTAGE PAID
CHICAGO, ILLINOIS
PERMIT NO. 1942