The Theory and Practice of School Choice

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Economists prove in theory what works in practice. So it is said.

This paper demonstrates quite the opposite: It shows that school vouchers work in practice, just as Rose and Milton Friedman proved in theory.

Simply defined, a voucher is a coupon for the purchase of a particular good or service. Unlike a $10 bill, it cannot be used for any purpose whatsoever. Its use is limited to the terms designated by the voucher. But like a $10 bill, vouchers typically offer recipients a choice. For this reason, distant relatives find coupons popular birthday presents for those whose tastes are unknown.

It is not only in the retail market that vouchers or coupons are used. Food stamps, housing allowances for the poor, and federal grants for needy students are all voucherlike programs that fund services while giving recipients a range of choice. It is the special contribution of the Friedmans that they have shown, theoretically, how vouchers can also enhance school choice and school productivity. By giving parents a school voucher, the government ensures that the money will be used for an investment in human capital. But instead of requiring attendance at a government-operated neighborhood school, no matter how deficient, the family is given a choice among public and private schools in its community. Schools can then compete for customer support. If educational services do not differ significantly from other goods and services, then this market-based approach to educational provision should yield efficiency gains.

PUTTING THEORY TO A PRACTICAL TEST

Until the 1990s, there was little opportunity to rigorously test this application of classical economic theory to the provision of educational services. But in the past dozen years, small school voucher experiments have been initiated in a variety of places, providing a chance to see if educational practice does in

fact conform to classical theory, as explicated and applied to school vouchers by the Friedmans.[1]

Publicly funded voucher programs enroll over 25,000 students in Milwaukee, Cleveland, and Florida. All of these programs are restricted to low-income or otherwise disadvantaged children.

The oldest program, established in Milwaukee in 1990 at the urging of local black leaders and then Gov. Tommy Thompson, was originally restricted to secular private schools and to fewer than 1,000 students. Then, in 1998, the Wisconsin Supreme Court ruled constitutional a much larger program that allowed students to attend religious schools as well. In 2002–03, over 11,000 students, more than 15 percent of the eligible population, were receiving vouchers up to $5,783, making it the country's largest and most firmly established voucher program.

The Cleveland program, enacted in 1996, was of lesser significance until the Supreme Court made it famous. Before the decision ruling it constitutional, vouchers amounted to no more than $2,250 and were limited to approximately 4,000 students. After the Supreme Court decision, the number of students increased to over 5,000, and the amount of the voucher, as of fall 2003, was as high as $2,700.

The initial Florida program, established in 1999 after Gov. Jeb Bush had campaigned on the issue, initially had less than 100 students but is poised to become somewhat larger. Here, vouchers are offered to low-income students attending failing public schools. Initially, only two schools in Pensacola were said to be failing, but in 2002, ten more joined their ranks. A second Florida program, which offers vouchers to students eligible for special education services, has received less attention but is perhaps more significant. In 2002–03, over 8,000 of Florida's special education students were enrolled in nearly 500 private schools.

In addition to these publicly funded voucher programs, there are in the United States numerous privately funded scholarship programs that operate much like school voucher programs. All these programs limit the scholarships to students from low-income families. They allow the parents to pick the private school of their choice, but they pay approximately half the tuition for more than 60,000 students. The largest program, operated by the Children's Scholarship Fund, offered 40,000 vouchers to students nationwide; over a half million students applied, and a lottery was used to select the winners. In New York City, Washington, D.C., and Dayton, Ohio, lotteries were also used to select winners from a large number of other applicants.

In other words, a variety of privately and publicly funded voucher programs are in operation. We can now look to see whether a program that works in theory also works in practice. To put the theory to a careful test, we shall report results from three randomized field trials similar to clinical (pill–placebo) trials conducted in medical research, generally regarded as the gold standard of

scientific research. Both the nationwide Children's Scholarship Fund program as well as the programs in New York City, Washington, D.C. and Dayton, Ohio, were conducted in a manner that allowed for a randomized field trial because the voucher recipients were chosen by lot. This enabled the evaluation team to compare those students and families who won the lottery with a control group of students and parents who requested but did not receive a voucher and remained in public school. The two groups of students—and their families—are, on average, similar in all respects because the only difference between them is that one group won the lottery while the other did not. This apple-to-apple comparison allowed for a rigorous testing of a variety of propositions drawn from classical economic theory.

Proposition 1: Market-Based Schools Tailor Services to Consumer Demand

Markets enhance the efficiency with which goods and services are provided simply by giving consumers services they prefer. Producers have an incentive to create products for which there is a demand and to abandon those that have little appeal to consumers. If men become bored with bell-bottom trousers, retailers will not stock them. Production will instead shift to blue denim cutoffs that strike a popular chord. So it is with schools. Private schools that survive only if parents choose them are more likely to provide goods and services that are in high demand; public schools, funded by taxpayer dollars, are less likely to be so responsive.

One can test this proposition quite simply by looking at some basic characteristics of a school. Parent surveys have long shown that parents prefer small schools, K–8 (rather than middle or junior high) schools, smaller classes, and more orderly environments. If market theory is correct, then we should expect private schools to match parent preferences more closely than public schools do.

School Size. The ideal school size has never been identified. Scholars have never been able to show convincingly whether students learn more in big schools or small ones. Some studies indicate big schools are to be preferred; others report opposite conclusions. Most studies show that school size makes no significant difference at all. Nor do educational professionals agree on the optimal size. According to some, large schools permit a varied curricula, social experimentation, student diversity, and economies of scale. But others say the intimate atmosphere of a small school is crucial for effective learning.

But if scholars and educational professionals find it difficult to reach a consensus, most parents have drawn their own conclusions. They like small schools. All else equal, they will take a small school over a big one.

Well aware of parental preference, private schools, operating in a marketplace, give parents the size of school they prefer. If parents receive a voucher, they will be able to place their child in a smaller school. Parents of children par-

ticipating in the evaluations in New York, Washington, D.C., and Dayton said their son or daughter, if in private school, had an average of 278 schoolmates. By contrast, students who remained in public school had, on average, 450 fellow students.

Age Structure of School. Should students attend schools that have a broad or narrow age range? Should children remain in the same school through eighth or ninth grade? Or should they change to a middle school after grade four? Or to a junior high school after grade six? Traditional educators favor schools with grades K–8, as in the days of the little red schoolhouse. But in response to studies by progressive educators, many school districts today have established middle schools and junior high schools.

Drawing on the tenets of classical economic theory, one expects private schools not to follow suit. Once they have recruited a student customer, they are likely to want to keep the child for as many years as possible. They will thus try to keep older students at their school for as many grades as feasible. And it is likely, though not certain, that most parents prefer elementary schools to middle schools and junior high schools, if simply to avoid the anxiety of changing schools but also, perhaps, to avoid schools that must deal wholesale with the problems associated with puberty and adolescence.

Our findings are consistent with these expectations. In our study, we found fewer students moving from one private school to another simply because they had "graduated" from an elementary school to enter a middle or junior high school. In New York City, for example, the percentage of young students changing schools just because they were "graduating" was 15 percent higher if the child was in a public school.[2] In short, private school students are more likely to stay in the same school for a longer sequence of grades.

Class Size. Among scholars, there is no more consensus on class size than on the optimum size of or the appropriate age structure for a school. Some econometric studies show that students perform better in smaller classes. Others show that the size of the class, within the fifteen- to thirty-student range, makes little difference. Still other studies suggest that class size makes a difference only if teachers are of low quality.

But if scholars cannot agree, parents—and students—can. The demand for smaller classes is an educational universal. Only those who have to pay for the smaller class demur, simply because class-size reduction is one of the most expensive of all educational innovations.

Despite the cost, private schools are more likely to respond to the market demand than public schools. In our study, there were, on average, twenty students per class in the private schools attended by participants in the study, as compared with twenty-three students per class in the public schools attended by those in the control group.

The fact that students attending private schools sat in smaller classes is, in

fact, little short of astonishing, given the fact that expenditures per pupil are much higher in the public sector (see below). Reducing class size is an expensive proposition because smaller classes require the recruitment of more teachers, raising the personnel costs at the school. Private schools nonetheless make a special effort to keep their classes as small as fiscally feasible because market demand for this characteristic of educational services is particularly strong.

Discipline. Educational professionals disagree over the appropriate learning climate a school should seek to create. Old-fashioned educators generally imposed strict rules. But progressive theorists say a more relaxed climate that allows students to pursue their own interests in a flexible manner provides greater opportunities for self-expression. Their position has been reinforced by civil libertarians who have sought to protect student rights.

But even though the appropriate balance between school order and individual creativity and self-expression is hotly contested among educational and legal theorists, most parents expect an orderly, disciplined school, where learning can go forward unimpeded by rowdiness and conflict. It is difficult to imagine a private school surviving if its disciplinary climate is problematic. Low-income parents are unlikely to pay tuition to a school that is known to have serious problems with cheating, fighting, truancy, or racial conflict. But when students are assigned to a public school on the basis of residential location, families will have no choice but to send their child to that school, despite the severity of its discipline problems. Given this clear market demand, private schools can be expected to respond by placing a greater priority on maintaining order in school than public schools do.

That is precisely what we found. Parents were asked to rate how serious a problem at their child's school were each of the following: fighting, cheating, property destruction, truancy, tardiness, and racial conflict. In each case, the problem at the school was less for those children attending a private school. For example, only 32 percent of the private school parents in the three cities said fighting was a serious problem, while 63 percent of the public school parents said it was. Property destruction was said to be a serious problem by just 22 percent of the private school parents, but by as much as 42 percent of the public school ones. Racial conflict was a problem for 22 percent of the students at private schools, compared with 34 percent of those in public school. In interpreting these findings, it is important to keep in mind that the children and families are similar (except that one group won the voucher lottery), so the differences between the public and private schools must be attributed to the learning environment at the school, not to family characteristics.

In sum, market-based schools are more likely to give customers preferred services—smaller schools with broad age ranges, smaller classes, and more orderly educational environments.

Proposition 2: Market-Based Schools Will Communicate with Customers

Educational theorists differ as to the appropriate role that parents should play in their child's education. Although many believe that parents should be involved in their child's educational experiences, others wonder whether excessive involvement will encourage parental interference in the educational process or introduce inequities, as better educated, higher income parents seek special advantages for their child. Many school boards, for example, restrict parents from participating in fund-raisers for their child's school on the grounds that it gives the children at these schools advantages not shared by students elsewhere, where parents may be less motivated.

But if educational theory is uncertain as to the desirability of parental involvement in the work of the school, classical economic theorists expect private schools to ignore any doubts on this score. According to classical theory, private firms are expected to search for ways of better communicating with and involving their customers with their product—simply in order to maintain their consumer base. Retailers expend vast sums acquiring and maintaining information on those who have been customers in the past—on the reasonable assumption that these are precisely the individuals most likely to make similar purchases in the future. Once a family buys a telephone from Circuit City or Radio Shack, the company routinely duns them with information on their latest gadgets. High school seniors who express the slightest interest in a private college will soon discover their mailboxes full of campus photographs taken at the loveliest time of the year.

If classical theory is correct, then private schools will put aside any doubts about equity or excessive parental involvement and develop techniques for involving parents in the work of the school. For children matriculated at a school, retention will become a major priority, in part out of a concern for the well-being of the child, but, according to market theory, also because continuing revenue flows from tuition are essential to the school's survival. Schools will develop regular channels of communication with parents so as to ensure their engagement in the life of the school—in part because most educators believe parents should be involved in their child's education, but also, classical theory says, because engagement reinforces commitment and retention.

For public schools, retention of students and engagement of parents are less critical. Schooling is compulsory until the age of sixteen; funding comes from the taxpayer, not from tuition; and most school officials enjoy job protection. Public school officials will thus have fewer market incentives and will place higher priority on the need to protect the school from excessive parental involvement.

Homework. The issue arises even when it comes to assigning homework. Many educators urge teachers to exercise caution when assigning homework. If

schools expect students to work on their studies at home on a daily basis, then parents are given routine opportunities to influence—even interfere with—the learning process. The better educated families can use this as a vehicle to give their child special advantages.

Private schools pay little attention to such advice, however. More regularly than public schools, they assign homework to students, and when they do, the homework is regarded by the parents as more appropriate. In the three cities, 72 percent of the private school parents reported that their child had more than one hour of homework per day, compared with 56 percent of the public school parents. Ninety percent of the private school parents said the homework was at the appropriate level of difficulty, compared with 72 percent of the public school parents.

School Communications. Private schools also communicate more frequently with parents in other ways. Private school parents were more likely than the control group of public school families to say they receive a newsletter from the school, participate in instruction, are notified of disruptive behavior the first time it happens, receive regular notes from the teacher, speak to classes about their job, are kept regularly informed about student grades, and attend open houses at the school. They are also more likely to be asked to participate in fund-raising activities.

In interpreting these findings, it is important, once again, to remember that the groups of parents whose children attend public and private schools in this study were similar because it was just random chance—a lottery—that determined whether or not they received a voucher opportunity. The enhanced parental engagement with the school was not due to special qualities of the private school parents; rather, it was due to the greater efforts by the school to involve these parents in the educational life of the child. Classical theory suggests that these schools have a strong interest in doing so.

Retention Rates. How do these efforts by private schools to maintain communications with families affect their retention rates? Classical theory expects higher turnover in the private than in the public sector simply because, in the private sector, parents are paying for the child's education. And if children are going to public school, compulsory education laws ensure that they remain in school. Furthermore, private firms wish to keep only those consumers who contribute to profits. They do not want customers who fight, steal, disrupt the business environment, and loiter for long periods of time without purchasing a product. None of these folks are good for business. Similarly, private schools can be expected to ask students to leave if they do not concentrate on their studies and comport themselves appropriately. Meanwhile, public schools are expected by law to provide for the schooling of all those living within their jurisdiction. One therefore expects higher rates of suspension, expulsion, and turnover in private than in public schools.

Surprisingly, classical theory, for once, seems to fail us. Private and public school differences are less than these considerations suggest. When parents were asked whether their child had changed schools during the school year or anticipated a change over the summer, we found no significant differences between private and public school parents. Although turnover rates for this low-income, inner-city population were high in both sectors, there was little difference between them. Apparently, a high degree of residential mobility leads to significant turnover in the public sector, one that is roughly equivalent to that in the private sector. We also did not find, in most cases, systematic differences in student suspension rates. Generally speaking, the likelihood that a child would be suspended varied between 5 and 10 percent in both sectors. However, among older students in Washington, D.C., we discerned higher suspension rates in the private sector. These students entered private schools with vouchers after having attended public schools for several years, and it was not clear that they had adjusted easily to private-sector expectations. Nonetheless, all the evidence, taken together, reveals a greater capacity to retain low-income students in private schools than classical theory might, at first glance, lead one to expect.

There are a couple of ways of explaining the anomaly. For one thing, the schools attended by these low-income voucher recipients were themselves low-tuition schools that often were in need of additional students. Efforts to maintain enrollment may have been particularly intense. Second, students may quickly adapt to the expectations of a school if it becomes clear that they will be suspended or expelled. Just as it takes but one rotten apple to spoil a barrel, so the barrel can be preserved simply by tossing out the one bad apple. Suspension, expulsion, and turnover rates may rise in the public sector simply because students realize that attendance at the school is a matter of right. Private schools tell students from the very beginning that continuation at the school depends upon conformity to school norms.

Proposition 3: Choice Breeds Happiness

Many professional educators worry about giving parents a choice of school. If parents have choice, they may select a school for what are thought to be wrong reasons—religious affiliation, racial composition, athletic facilities, convenience, or simply the school friends are attending. They also fear the degree of educational stratification that may accompany systems of educational choice.

But if educators worry about choice, classical economic theory celebrates it. For one thing, customers are expected to be happier if they have a choice. Few propositions drawn from classical economic theory are as widely accepted as this one. Tell a customer they have no choice of doctors and they will complain bitterly about the one they have. Allow them to choose freely among medical professionals and their satisfaction levels rise.

Not everyone agrees as to just why choice breeds happiness, however. Some say that satisfaction levels, as reported in surveys, are artificially inflated because consumers hate to admit a mistake. The "lemon" one purchased from the used car dealer has a marvelous tinted window, reason enough to purchase it. The sofa is the right length, even if uncomfortable. But self-delusion has its limits. The longer one has the product, the less likely one is to ignore its deficiencies. Sooner or later, the lemon will be sold and the couch replaced.

Classical theory therefore expects to find, initially, higher levels of parental satisfaction with private schools, but it also expects these satisfaction levels to attenuate with time. What may seem to be a great new world for one's child in the first instance may not prove to be as wonderful an opportunity as the years unfold. But if some decline is to be expected, the rate of decline is dependent upon product quality. If the used car proves itself, satisfaction levels could persist for years to come.

In the evaluations of the three voucher programs in New York, Washington, and Dayton, parents were asked about their satisfaction with a wide range of school characteristics, including what was taught, teacher skill, the quality of the academic program, school discipline, school safety, student respect for teachers, class size, clarity of school goals, parental involvement, and other characteristics. At the end of the first year, parents in private schools expressed much higher levels of satisfaction. For example, 54 percent of the private school parents expressed a high level of satisfaction with the quality of the academic program, compared with 15 percent of the public school parents. For school discipline, the percentages were 53 percent and 15 percent, respectively. The pattern remained much the same for many of the other characteristics.

Because the responses to many different questions fell into a common pattern, it was possible to construct an overall satisfaction scale. Differences on this scale at the end of the first year were very large, 0.92 standard deviations, for the three cities combined. Very seldom does one find differences this large between two groups participating in a randomized field trial.

But did this very large difference in satisfaction levels persist over time, or did it sharply attenuate? We were able to track this most carefully in New York City, where we obtained satisfaction reports from parents in each of three years. At the end of the first year, satisfaction levels were 1.01 standard deviations higher among the private school parents; at the end of two years, it climbed slightly to 1.05 standard deviations; by year three, it had fallen slightly to 0.94 standard deviations. In short, consumer satisfaction with vouchers was real, not ephemeral. Choice breeds satisfaction in more than just the very short run.

Proposition 4: Market-Based Schools Are More Productive

Educators worry about the educational productivity of market-based schooling. Private schools with a religious affiliation may place a higher pre-

mium on maintaining the child's religious identity than in providing them with an education. For-profit schools may skim profits by providing the most mechanical educational experience.

Classical economic theorists think otherwise. Markets stimulate productivity, says classical economic theory, not only by better matching goods and services to consumer preferences, but also by finding more efficient ways of producing these items at higher quality. So rapid is technological innovation in the computer industry that PCs today have greater computational capacities at lower costs than those available just a year or so ago.

Similar efficiency gains are unknown to modern American public education. Here the costs—in real 2002 dollars—have climbed steadily over the past half century, rising from $3,500 per pupil in 1960 to nearly $9,500 per pupil in 2000, a near threefold increase. Despite this increase in expenditures, student performances, as measured by standardized tests, have barely budged. Admittedly, test scores are not the only item to be measured in an overall assessment of school productivity, but they certainly are among the most important. If a near threefold increase in expenditure yields no gains in a key educational outcome, certainly there are severe signs of diminishing productivity. Indeed, we know of no other major sector of the American economy that has become so markedly less productive over this period of time.[3]

But does school choice increase productivity, either by raising student performance or by reducing school costs? We were able to obtain a fair comparison of educational costs in public and Catholic schools in New York City because both systems made available to us financial records that facilitated a more considered comparison than is usually possible. To make the comparison fair, we excluded from public school costs the items that were probably not being provided by Catholic schools, including monies spent on transportation, special education, school lunches, other ancillary services, and all the costs of the administrative staff at the city, borough, and district levels. All these deductions constituted 40 percent of the total cost of public schools in New York City. The remaining public school costs in 1998 were still $5,000 per pupil, more than twice the $2,400 per pupil cost of Catholic schooling in the city.

Despite this resource gap, Hispanic students attending private schools did equally well as their public school counterparts, and African American students did strikingly better. After three years, private school African American students were performing at a level that was nearly two grade levels higher than the control group remaining in public schools. In short, private schools, with half the resources, did equally well at providing educational opportunity for Hispanic students and considerably better for African American ones. Once again, these differences cannot be attributed to higher initial capacity or commitment on the part of student or family because the two groups of students were originally similar, save for the fact that the one group had won the lottery.

Proposition 5: The Characteristics of Both Public and Private Schools Affect Voucher Usage

According to classical economic theory, both push and pull factors are likely to affect voucher usage. Families will be pushed away from public schools, if they find them unsatisfactory. And they will be drawn toward private schools, if they have qualities families find especially appealing. However, they will remain in private schools only if they remain satisfied with the new educational opportunity.

The decision to use a voucher can be broken into the following three steps: (1) applying for a voucher; (2) using a voucher, if offered one; (3) remaining in a private school over time. Each step requires a greater commitment than the previous one, especially when vouchers pay only about half the cost of attending a private school (as was the case in the situations examined here).

The process of obtaining and using a voucher can be usefully compared to the processes of courtship and marriage with which most are familiar. The initial decision to date requires little commitment. If sufficiently unhappy, the love-starved may agree even to a blind or computer-generated date. Factors explaining decisions at this point are more likely to be "push" considerations, such as prolonged loneliness, the collapse of a previous love affair, or a divorce. Agreeing to marriage is another matter, one that must be taken seriously by both parties. Here the pull factors of the potential mate are more likely to be critical. And, of course, the marriage persists only if the relationship is successful.

So it is with vouchers. Each step—from initial expression of interest to the decision to matriculate at a specific school to retention at that school—requires a greater commitment on the part of both the parent and the private school the child is attending. Considerations that induce voucher applications are not always the same as those that lead families to use them, when offered the opportunity, or to keep families within voucher programs over time.

The best information on the first stage of the process, the application for a voucher, comes from an evaluation of the nationwide scholarship program administered by the Children's Scholarship Fund. In this case, my colleagues and I were able to compare low-income applicants with all low-income families eligible for participation in the voucher program.[4]

Push factors were important at the applicant stage. Those who applied were less likely to be satisfied with the public school their child was currently attending. Only 24 percent said they were "very satisfied" with the academic quality of the school, compared with 38 percent of all eligible parents. Satisfaction with public schools may also help explain why vouchers were also much more attractive to African American families than to either white or Hispanic families. Forty-nine percent of the applicants were African American, compared with just 26 percent of the eligible population. Presumably, public schools attended by African American students are particularly problematic.

But pull factors were also important. Families were more likely to apply for a voucher when they were actively engaged in religious life. Since most private schools have a religious affiliation, it is very likely that this religious dimension was something these families were seeking. Otherwise, differences between applicants and eligibles were modest. Applicants were only slightly more likely to live in two-parent households or to have mothers who were college educated. Even those with disabilities were as likely to apply as those who were not. However, applicant families were more likely to have lived in their current residence for two or more years, a sign that voucher applicants were better embedded in community networks than eligible families more generally.

Pull factors become especially important at the second stage of the voucher utilization process, the point at which lottery winners must decide whether to use the voucher offered them. At this point, a critical pull factor is the sheer availability of a private school. Thus, usage rates were higher in those metropolitan areas where the private school share of the market was the greater. Another indication that families were being drawn to the private sector is the fact that those regularly engaged with religious institutions, especially if Catholic, were more likely to use the voucher. Since over two-thirds of private schools are Catholic, the availability of private schools to active members of this religious faith gave these families a special opportunity. Financial issues also seem important, inasmuch as family members with more children were less likely to take up the opportunity. For low-income families, placing several children in a private school may have been too taxing, especially since in this program the voucher usually covered only about half the cost.

Finally, evidence with respect to differences in ethnic response at this stage of the process is mixed. In the national Children's Scholarship Fund evaluation, African American families were much *less* likely to use a voucher when offered the opportunity. But in New York City, they were much *more* likely to use vouchers, if offered.[5] These quite opposite effects remain large even after many other factors are taken into account in the analysis. Nor is there reason to question the quality of the data in either case. The inconsistency of the findings from the two evaluations may be reconciled by considering a key pull factor—the availability of private schools in African American neighborhoods. In New York, private schools may have been readily available to African American students, in part because many Catholic schools remain in the New York neighborhoods where African Americans live. The Catholic immigrant groups that built the schools have left these neighborhoods, but the well-established Catholic archdiocese in the city has made strenuous efforts to keep the schools intact. This is probably less true nationwide. Private schools, Catholic or not, may be scarce in neighborhoods with a high concentration of African American families.

The New York evaluation also provides information concerning those who are willing to remain in private school over a three-year period. As might be

expected, satisfaction with the private school critically affects the likelihood of leaving the program. Also significant is the match between the religious affiliation of the family and the school, a sign, once again, that preference for a particular kind of educational experience is important to voucher users. Finally, African American students are less likely to remain in private school than are students from other ethnic groups.

In short, both push and pull factors affect voucher usage. Families are attracted to a voucher program if they are dissatisfied with public schools and/or they seek special qualities (such as religious engagement) from a private school. But they are unlikely to continue to use a private school if they become dissatisfied with its quality.

Proposition 6: Public Schools Will Respond to Competition, Perhaps

If classical economic theory is correct, then public schools, confronted by the possibility that they could lose substantial numbers of students to competing schools within the community, may be expected to respond by reaching out more effectively to those they are serving.

In the randomized field trials we conducted, the number of voucher students was too small for their presence to have any discernable impact on the public schools in these cities. But in Milwaukee, voucher students constitute over 10 percent of the student population whose education is publicly financed. Another 10 percent of the students attend charter schools, which also provide families with a choice of school. Substantial school choice has been available to families since 1998, providing the best setting in which to identify how vouchers impact public schools in the vicinity.

Early research on Milwaukee suggests that vouchers are having an impact on the public schools, albeit slowly. Relying on evidence collected in 1999, only one year after the expanded program had begun, American Enterprise Institute scholar Frederick Hess concluded that public schools had few incentives to respond to the competition—in part because their revenues and the job opportunities of school employees were protected from the competition. At least in the first few years, the schools seemed to be making little more than symbolic responses to the competition.[6] But other evidence is more encouraging. Harvard economist Caroline Minter Hoxby found signs that public school test scores rose more rapidly in those Wisconsin public schools that were impacted by vouchers.[7] Even the threat of a voucher can have a positive effect on test scores. Research by Manhattan Institute scholar Jay Greene shows that when public schools were in danger of failing twice on the statewide Florida exam, making their students eligible for vouchers, these public schools made special efforts to avoid failure.[8]

Despite these positive early signs, one cannot expect rapid transformation of public schools, even if voucher programs should expand, simply because pub-

lic financing arrangements are often designed to protect public schools against competition. Although financial arrangements vary from one state to the next, on average, nationwide, 49 percent of the revenue for public elementary and secondary schools comes from state governments, while 44 percent is collected from local sources and the balance received in grants from the federal government. Most of the revenue school districts get from state governments is distributed on a "follow the child" principle. The more students in a district, the more money it receives from the state. If a child moves to another district, the state money follows the child. Local revenue, most of which comes from the local property tax, stays at home, no matter where the child goes. As a result, the amount of money the district has per pupil actually increases if a district suffers a net loss of students, simply because local revenues can now be spread over fewer pupils.

The voucher programs in Milwaukee, Cleveland, Florida, and Colorado have all been designed to protect public schools from serious financial problems when students accept vouchers. The state money follows the child, but the local revenue stays behind in local public schools, which means that more money is available per pupil. In Milwaukee, per-pupil expenditures for public school children increased (in real dollars) by 22 percent between 1990, when the first small voucher program began, and 1999, when vouchers were prevalent. The rise in expenditures was from $7,559 to $9,036. Not all of the increase was a direct result of the voucher program, but the example shows that public schools do not necessarily suffer financially when voucher programs are put into effect.

In short, public schools thus far have few financial incentives to respond to voucher competition.

Proposition 7: Economic Logic Does Not Necessarily Translate into Political Logic

School vouchers in practice seem to operate much as the Friedmans have long suggested they would work in theory. When theoretically well-grounded innovations prove successful in practice, one ordinarily expects a fairly rapid diffusion of the innovation. According to classical economic theory, followers will adopt the innovations of industry leaders simply in order to survive the competitive threat.

Such a response is less likely, however, when vested interests adversely affected by the innovation can use government authority to keep the innovation from spreading. In the early seventeenth century, the watermen of London sought to keep wagons and coaches from appearing on the city streets. A perceptive architectural historian tells the story in this way:

> One gets an impression of the importance of the [Thames] river traffic on hearing that in 1613 the number of the watermen and their families

> amounted to 40,000 in a city whose entire population hardly exceeds 200,000. By means of propaganda, they made war on all other methods of transport, by wagon or by coach, but it was of no use. In 1601 they succeeded in getting a Bill passed in the House of Commons "to restrain the excessive and superfluous use of coaches." This was, however, stopped by the House of Lords.[9]

While the watermen failed in this instance, they regularly impeded the advancement of land transport in the decades to follow. Similarly, throughout much of the twentieth century, American railroads used their access to the Interstate Commerce Commission to protect themselves from the trucking industry. Today, pharmaceutical companies routinely fight the deployment of generics as an infringement on their patents. In short, government authority to regulate is often used to protect producers from competition.

Public schools, as traditionally organized, are no less well positioned to protect their interests than were London's seventeenth century watermen. Much like London's river traffic industry, the educational industry is today very large, constituting no less than 5 percent of the American economy. Most Americans once attended public schools themselves, and, as a result, their affection for this institution, no matter how aging and sluggish, is deep and abiding. The industry's political flank is well protected by two major unions, the National Education Association and the American Federation of Teachers, which are among the most active organizations in national, state, and local politics. In local school board elections, teachers vote with a frequency unrivaled by ordinary citizens—especially if they live and work in the same district.[10] Fighting the spread of school vouchers is a top union priority. When doing so, unions can invoke the public school as the symbol of democracy and vouchers as an unconstitutional threat to the unity of the American people.

THE CONSTITUTION AND BALKANIZATION

Ever since the voucher concept was first enunciated by the Friedmans, its constitutionality has been questioned by those who said it violated the establishment of religion clause of the U.S. Constitution's First Amendment. But in 2002, a five-member majority of the Supreme Court found, in the case of *Zelman v. Simmons-Harris*, that the Cleveland school voucher program was constitutional. The court declared that the program did not violate the establishment clause, as plaintiffs had argued, because it allowed parents a choice among both religious and secular schools. There was no discrimination either in favor of or against religion.

But even though school vouchers have passed this crucial constitutional test, many have argued that they would prove divisive in a pluralist society with multiple religious traditions. In his dissent from the majority opinion in *Zelman*,

Justice Stephen Breyer saw the decision as risking a "struggle of sect against sect." And Justice John Stevens said he had reached his decision by reflecting on the "decisions of neighbors in the Balkans, Northern Ireland, and the Middle East to mistrust one another. . . . [With this decision] we increase the risk of religious strife and weaken the foundation of our democracy."

These dissents echo the concerns of many distressed by the worldwide rise in fundamentalist religious conviction, worries that have intensified since 9/11. But though the concerns are genuine enough, it's hardly clear that government-controlled indoctrination of young people is the best tool for conquering intolerance. On the contrary, this strategy proved counterproductive in many parts of the former Soviet Union. Historically, the United States has achieved religious peace not by imposing a common culture but by ensuring that all creeds, even those judged as dangerous by the enlightened, have equal access to democratic processes.

Of course, religious conflict is part and parcel of American political history. In the late nineteenth century, many objected to the establishment of Catholic schools. Indeed, anti-immigrant sentiment was so strong that amendments to state constitutions were enacted that seemed to forbid aid to religious schools. Many of these provisions are the so-called Blaine amendments, dating to the nineteenth century, when James Blaine, a senator from Maine and a Republican presidential candidate, sought to win the anti-immigrant vote by campaigning to deny public funds to Catholic schools. (Blaine is perhaps most famous for tolerating a description of Democrats as the party of "Rum, Romanism, and Rebellion.") In its classic version, the Blaine amendment read as follows:

> No money raised by taxation for the support of public schools, or derived from any public fund therefore, nor any public lands devoted thereto, shall ever be under the control of any religious sect; nor shall any money so raised or lands so devoted be divided between religious sects or denominations.

Blaine-like clauses in state constitutions are being invoked by those seeking to forestall voucher initiatives. In a number of cases, state courts have interpreted these clauses to mean nothing more than what the Supreme Court defines as the meaning of the establishment clause of the First Amendment. If this view prevails in state courts, then vouchers do not violate these state constitutional clauses now that they have been found constitutional by the U.S. Supreme Court. And if the Blaine amendments are invoked as a basis for finding vouchers in violation of state constitutions, the Supreme Court may eventually be asked to decide whether, on account of their nativist and anti-Catholic origins, these Blaine amendments—and their derivatives—are themselves unconstitutional.[11]

The controversies over religion seem more heated in the political and legal world than in the classroom, however. While exceptional cases can always be

identified, there is little evidence that religious schools typically teach intolerance. Indeed, careful studies have shown that students educated in Catholic schools are both more engaged in political and community life and more tolerant of others than public school students. After enduring harsh criticism from critics in a Protestant-dominated America, Catholic schools took special pains to teach democratic values.[12] The more recently established Christian, Orthodox Jewish, and Muslim schools can be expected to make similar attempts to prove they, too, can create good citizens.

As Justice Sandra Day O'Connor pointed out in her concurring opinion, if Justices Breyer's and Stevens' fears were real, we'd know it already. She showed that taxpayer dollars flow to religious institutions in multiple ways—through Pell Grants to sectarian colleges and universities; via child care programs, in which churches, synagogues, and other religious institutions may participate; and through direct aid to parochial schools of computers and other instructional materials. If thriving religious institutions create a Balkanized country, she seems to say, this would already have happened.

Nor, say voucher proponents, have public schools eliminated social divisions. As Justice Clarence Thomas argued in his concurring opinion, "The failure to provide education to poor urban children perpetuates a vicious cycle of poverty, dependence, criminality and alienation that continues for the remainder of their lives. If society cannot end racial discrimination, at least it can arm minorities with the education to defend themselves from some of discrimination's effects." In other words, vouchers may help heal, not intensify, the country's most serious social division.

NOTES

[1] Unless otherwise indicated, the information in this paper is taken from William Howell and Paul E. Peterson, with Patrick Wolf and David Campbell, *The Education Gap* (Brookings, 2002), 92. The research from randomized field trials summarized in this paper is reported in full in this monograph.

[2] David Myers, Paul E. Peterson, Daniel Mayer, Julia Chou, and William Howell, "School Choice in New York City After Two Years," Program on Education Policy and Governance, Working Paper No. 00-17 (August 2000), Table 17.

[3] For these facts and other related information on the productivity of the American school system, see Paul E. Peterson, ed., *Our Schools and Our Future: Are We Still at Risk?* (Hoover, 2003), Ch. 2–3.

[4] Paul E. Peterson, David E. Campbell, and Martin R. West, "Who Chooses? Who Loses? Participation in a National School Voucher Program," in Paul T. Hill, ed., *Choice with Equity* (Hoover, 2002), 51–85.

[5] William G. Howell, "Dynamic Selection Effects in School Voucher Programs," *Journal of the American Association of Public Policy and Management*, forthcoming.

[6] Frederick M. Hess, "The Work Ahead," *Education Next* I (Winter 2001), 8–13; Frederick M. Hess, *Revolution at the Margins* (Brookings, 2002).

[7] Caroline Minter Hoxby, "Rising Tide," *Education Next* I (Winter 2001), 69–74.

[8] Jay P. Greene and Marcus Winters, "When Schools Compete: The Effects of Vouchers on Public School Achievement," Education Working Paper No. 2, Center for Civic Innovation at the Manhattan Institute (2004).

[9] Steen Eiler Rasmussen, *London: The Unique City* (Penguin, 1961), 116–17.

[10] Terry Moe, "Political Control and the Power of the Agent," Hoover Institution, Stanford University, 2003 (Unpublished paper).

[11] A related issue is being considered by the Supreme Court during its 2003–04 term. See James E. Ryan, "The Neutrality Principle," *Education Next* III (Fall 2003), 28–35.

[12] For citations, see Howell and Peterson, with Wolf and Campbell (2002), 130–32.