
EDUCATION VOUCHERS IN PRINCIPLE AND PRACTICE: A SURVEY

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An education voucher system exists when governments make payments to families that enable their children to enter public or private schools of their choice. The tax-funded payments can be made directly to parents or indirectly to the selected schools; their purpose is to increase parental choice, to promote school competition, and to allow low-income families access to private schools. Some opponents predict that vouchers will destroy the public system, aggravate poverty, and foster segregation. Others fear that voucher-receiving independent schools will be regulated out of recognition.

The main purpose of this article is to examine the recent emergence of voucher systems as an interesting phenomenon in its own right. The evidence summarized relates to voucher systems operating in twenty countries, provinces, and states. The typical "funds-follow-the-child" voucher system, in which governments subsidize "schools of choice" in strict proportion to enrollment, appears to be the favorite form. This type of voucher has been adopted by developing countries—notably Bangladesh, Belize, Chile, Colombia, Guatemala, and Lesotho—as well as by industrial countries such as Poland, Sweden, the United Kingdom, and the United States. Much of the recorded experience with such programs is pertinent to the longstanding theoretical debates on the desirability of voucher systems.

A tax-funded education voucher in the broadest sense is a payment made by the government to a school chosen by the parent of the child being educated; the voucher finances all or most of the tuition charged. The system introduces competition among public schools and between public and private schools; and it enables schools to offer diverse educational packages to meet the different preferences of parents.

The voucher systems discussed here apply to education up to and including high school and are funded through tax revenues (for a discussion of vouchers in higher education and privately funded voucher systems, see West 1996). First,

however, it is important to understand the rationale for the basic intervention that calls upon taxpayers to finance education.

The Rationale for State Intervention

In economics the three most quoted normative reasons for state intervention in education are to protect children against negligent parents, to internalize beneficial “externalities,” and to ensure equality of opportunity. Compulsory education laws are generally regarded as satisfying the first argument for state intervention. The externalities argument, to be completely persuasive, needs the support of evidence that externalities really exist and are positive at the margin—that is, that people outside the family unit are willing to pay for extra units of education beyond what parents would purchase. In the absence of formal or systematic evidence, most writers simply assume, explicitly or implicitly, that positive marginal external benefits do exist.

The third argument for intervention—the need to ensure equality of opportunity—reflects concern about the distributional implications of purely private provision. Richer parents are likely to spend more than poorer parents to educate their children, just as they spend more on cars, homes, and clothes. The view that children’s life chances should not depend on the wealth of their parents or the fortuitous circumstances of the community in which they live is widely accepted. The prospect of upward mobility, of ensuring that one’s children will be better off, has been a keystone of political support for the public school system in the past.

This “equality” argument for intervention depends on the assumption that governments are best equipped to supply the appropriate institutions. But a public system that confines children to schools nearest their home or within administratively determined attendance zones can actually reduce mobility. And where the quality of public education is better in middle-class zones than elsewhere, upward mobility is obviously blocked. In other words, the public system can often narrow a child’s options, forcing the child to attend an inferior school when a superior one may be physically within reach. One of the arguments for vouchers is that they enable families to break through these obstacles to give equal opportunity a genuine chance.

The Rationale for Voucher Systems

The goal of all voucher plans—to provide families with maximum choice within a decentralized and competitive system of schools—embodies four principles: consumer choice, personal advancement, the promotion of competition, and equal opportunity. Consumer choice, in education, equals parental choice: parents choose schools for their children by virtue of their parental authority and are thus, in a fundamental sense, the real consumers of education. Under a

voucher plan, government serves the consumers of education—parents—rather than the suppliers of education—schools.

The second principle, that of personal advancement, is rooted in the conviction that people want to shape their own destinies. The opportunity to choose and to decide stimulates interest, participation, enthusiasm, and dedication. Many government programs—for example, Social Security, welfare, health programs, student loans—directly subsidize the individual recipients with funding for services among which they can select. Social security recipients, for example, can spend their checks however they choose. The goal of educational vouchers is to extend this principle to education.

The third principle, the stimulation of competition applies here because public schools are usually monopolies. The objective of vouchers is to challenge them to compete—with each other and with private schools—through reducing costs, increasing quality, and introducing dynamic innovation.

The fourth principle—the goal of equality of opportunity—underlying the rationale for vouchers is a logical outcome of the other three and is expressed in the objective of increasing access to private schools. This goal is embodied particularly in those “selective,” or targeted, voucher schemes that give low-income families greater access to private schools, schemes that have been advocated by Oakland (1994) and Becker (1995). Oakland concludes that a case can be made for some redistribution in the provision of social services generally but suggests that redistribution is better accomplished by extending the welfare system to provide the poor with vouchers for selective government services such as education. This is in preference to the usual system whereby higher levels of government supply lower levels with grants that vary with the levels of local wealth and income. Although fiscal considerations are a factor in Becker’s recommendation, he advocates a targeted system primarily “because the bottom quarter or so of the population are most in need of better education” (p. 11). He quotes studies that not only demonstrate the superior performance of private over public schools in the United States, but also show that “students from disadvantaged backgrounds tend to gain the most from attending private schools.” This fact, he observes, is not surprising “in light of the more extensive choices available to middle class and rich students” (p. 12).

Studies comparing the performance of public with private schools in developing countries generally appear to match those in the United States. Analysis, for instance, by Lockheed and Jimenez (1994) of private and public secondary schools in five developing countries revealed that private schools have a significant advantage both in student achievement and in unit costs.

Different Applications of the Voucher Principle

Under most tax-funded voucher systems, education is compulsory up to a legal school-leaving age, but parents are free to choose among alternative sup-

pliers of the compulsory service. Compared with an education tax rebate, vouchers help even those who pay little in direct taxation.

With vouchers children are not assigned to schools by attendance zones or any other criterion of the school system. Instead, vouchers enable parents to select a school for their children among any eligible and participating schools, public or private. In the most common application of the voucher principle, known as "funds follow the child," government funding is directed straight to the school chosen by the parent. Because it has no other direct government subsidy, each school is thus in competition with every other school for students. Good schools attract many students, redeem many vouchers, and prosper. Inferior schools, avoided by parents, are stimulated to improve or must close down.

In practice, tax-funded voucher systems operate under many different regulatory rubrics. They may include government inspection of schools receiving the vouchers. They may also operate only under the condition that the teachers are licensed by the government. Vouchers may be available to all families or to low-income families. The value of the vouchers can also be made to vary inversely with income, so that poorer families receive vouchers worth more than those received by richer families. A variant of the funds-follow-the-child arrangement is a system of chits, given to each parent, cashable only by appropriately designated schools, who then return their vouchers to the relevant government authority and receive the cash value, which they use to pay expenses such as staff salaries. The value of the chit could be equal to, or somewhat less than, per student government expenditure in public schools. Finally, vouchers might provide access to private schools only, public (government) schools only, or to both public and private schools.

Selective Vouchers

Selective vouchers can be restricted to families receiving less than a given income level. Such vouchers can of course be found outside the context of education. They have been used for housing, for health, and—perhaps the best example for these purposes—for food, in the United States federal government's food stamp program. The federal government uses an income test to determine eligibility for food stamps. Recipients use the stamps instead of cash to buy groceries. The grocery stores then return the stamps to the federal government and receive cash in return. This method is similar to the "chits" version of education vouchers described above. But whereas black market operations seriously threaten the food stamp system, the school voucher largely avoids this problem because it is quite difficult to transfer (sell) the rights to the education obtained.

Selective vouchers can be allocated on the basis of gender as well as income. In Bangladesh, for instance, vouchers are supplied exclusively to females in grades six through ten.

Open Enrollment and Charter Schools

It is sometimes contended that the objectives of vouchers can largely be achieved exclusively within the public sector. This argument involves the so-called "open enrollment system," wherein the family can choose public schools across extensive geographic areas. In practice, however, disproportionate applications to enroll in a popular school lead administrators to declare it to be full. Unpopular schools, therefore, are not faced with serious costs of undercapacity and typically continue to survive such weak competition.

Another potentially interesting scheme is the relatively new phenomenon of charter schools. These are decentralized and fairly autonomous institutions that operate under contract or charter to an authorized public body. If a charter school does not attract and keep its students, it will go out of business and its charter will be revoked.

Because government subsidizes the charter school in direct proportion to its enrollments, the voucher principle is at least partially respected because "funds follow the child"; for the principle to be fully respected, private schools would also have to be eligible to receive the grants. Nevertheless the charter school provides some alternative to the one public school in a child's administration zone to which he or she is usually assigned. In urban areas, moreover, parents may be able to choose between charter schools themselves. Further details of these institutions in the United States and Europe are provided by West (1996).

Voucher Systems in Operation

Table 1 summarizes voucher systems for primary and secondary education that have been implemented in twenty countries, states, or provinces around the world in the 1990s. Typically these voucher systems are the funds-follow-the-child kind, in which governments subsidize schools in strict proportion to enrollments.

Space does not allow extended discussion of each entry in table 1. Five countries have therefore been selected for brief comment here; as case studies they may cast some light on the arguments for and against vouchers reviewed in the next section. The countries are Chile, Colombia, Puerto Rico, the United States (Milwaukee), and the United Kingdom.

Chile

Following the introduction of subsidized ("voucherized") private education in Chile in 1980, the number of students attending private schools increased considerably. By 1988 private schools accommodated 30.4 percent of the elementary school population (compared with 14 percent in 1980) and 40.8 percent of total secondary school registration (compared with 15.9 percent in 1980).

Table 1. Education Vouchers: A Cross-Country Survey of Primary and Secondary Schooling

<i>Country</i>	<i>Qualifying population</i>	<i>Coverage</i>	<i>Regulations and practices</i>	<i>Monetary value of voucher per student</i>
Bangladesh	Females grades 6–10	Selected localities	Public or private schools, minimum attendance and progress required	From \$12 in grade 6 to \$36.25 in grade 10
Belize	Elementary and secondary school attendees	75 percent of primary, 50 percent of secondary students	Strong government partnership with the churches	Not available
Canada: Province of British Columbia	Families patronizing independent schools	Denominational and secular private schools	Schools receiving vouchers have to have been established for 3 years minimum	30 percent of public school costs per student \$500 in 1978
Canada: Province of Québec	Families patronizing independent schools	Mainly private secondary schools	Public inspection; teachers must have same qualifications as in public schools; same curriculum	60 percent of the costs of public schooling (80 percent for schools "in the public interest")
Canada: Province of Manitoba	Families patronizing independent schools	Private schools	Public inspection; teachers must have same qualifications as in public schools; same curriculum	Full-time equivalent capitation grants
Canada: Province of Saskatchewan	Families patronizing independent schools	Private schools	Curriculum, teacher qualifications, enrollment	55 percent of public school per capita cost
Canada: Province of Alberta	Families patronizing independent schools	Private schools	Curriculum, teacher qualifications, language requirements	50 percent of public school cost
Chile	Low-income elementary and secondary school attendees	More than one-third of total enrollments	Receiving schools can also charge fees	Average value in 1991: 4,359 pesos
Colombia	Low-income students	Operational in 216 municipalities; vouchers usable in private schools	Program participation renewable if student performance satisfactory	\$143 a year

Guatemala	Selected rural communities with children 7-14 years old	330 communities; 30,000 children	Minimum attendance required	About \$65 a year
Japan	Children over 15 years old (not covered by compulsory education laws)	Public and private high schools	Private schools must submit financial statements to the foundation for the promotion of private schools	40 percent of the cost in private high schools covered by government
Lesotho	Elementary and secondary school attendees	Most schools	Government trains and appoints teachers; strong partnership with the churches	Not available
Netherlands	Children subject to compulsory education	All municipal areas	State finance of schools for each religion where local demand demonstrated; secular private schools also state financed	Public and private schools are financed on a completely equal basis
New Zealand	All school-age children	All public schools, selected independent schools	Open enrollment system in a decentralized public sector; school autonomy strengthened via local parent-elected boards	Teacher salary grants to independent schools amounting to 20 percent in 1993 with expressed intentions to raise it eventually to 50 percent
Poland	Families associated with one of the 36 sponsoring organizations, including the University of Warsaw	Private, mainly nonsectarian schools	Government approval required to open independent schools; a wide variety of curricula allowed in practice	Per capita subsidy level at 50 percent expenditure
Puerto Rico (until 1995)	Families with school-age children and incomes below \$18,000	Public and private schools	Use of a lottery when demand for vouchers exceeds supply	\$1,500
Sweden	Children subject to compulsory education	All municipal areas	Schools must follow national curriculum; supervision by the National Assembly of Education	At least 85 percent of per pupil cost in municipal schools

(Table continues on the following page.)

Table 1. (continued)

Country	Qualifying population	Coverage	Regulations and practices	Monetary value of voucher per student
United Kingdom	Low-income students with above-average ability	"Assisted Places" in private schools only	Participating schools must be approved by Education Department	\$3,500 (approx.) a year on average (1992)
United States (1)	Low-income students in Milwaukee, Wisconsin; maximum 1,500 students	Private nonsectarian schools	Participating schools must limit voucher students to 65 percent of the student body	\$2,900 a year (1994)
United States (2)	Low-income students in Cleveland City School District (K to 3rd grade), 11,864 students in the current pilot scheme	Public and private schools from K-3rd grade up through 8th grade; religious schools are included	Vouchers in the form of checks payable to the parents of "scholarship" students	Based on tuition charged by private schools of choice; normally around \$3,000 a student

Source: Chile—Winkler and Rounds (1993); Matte and Sancho (1993). Sweden, New Zealand, The Netherlands—OECD (1994). Japan—Lynn (1986). U.S. Milwaukee—McGroarty (1994). Puerto Rico—The Heritage Foundation (1995). United Kingdom—U.K Department of Education (1992); World Bank (1995); Flew (1995). Poland—Glenn (1995). Canada—Easton (1988). Bangladesh, Belize, Lesotho, Colombia, Guatemala—National Program of Self-Administration for Educational Development (PRONADE) (October 1996).

The Chilean reforms were described by the government as a move toward decentralization. Public schools were transferred to the municipalities, and a new subsidy law provided for the allocation of resources on a per-pupil basis and on equal conditions to both private and municipal schools. A "student performance examination" called Programa de Rendimiento Escolar (PER) operated between 1982 and 1984. This program lasted only two years because it encountered political difficulties. The Sistema de Medición de Calidad de Educación (SIMCE) national test followed in 1988. It indicated that the quality of education was significantly higher in the subsidized private educational establishments than in the municipal schools (with the exception of one group). The reforms were followed by an increase in the average number of years of schooling among the Chilean population, including the lower-income groups.

Economic recession has brought some setbacks in recent years, notably a reduction in the real value of the voucher, but to offset this partially, the new private schools have been allowed, since 1993, to charge fees for their services. This provision enables parents voluntarily to pay additional sums to their school with the object of trying to maintain or increase educational quality. Municipal primary (elementary) schools are not allowed to charge fees.

Colombia

A voucher system was introduced in 1992 and by 1994 was operating in 216 municipalities, serving 90,807 low-income students in 1,789 schools. The vouchers, worth on average about \$143, were issued to students entering the sixth grade. An early examination of the program confirmed that, as intended, the vouchers were being successfully allocated exclusively to poor families.

The voucher system was introduced primarily to respond to the shortage of places in public secondary schools in Colombia, where 40 percent of the secondary schools are privately owned. The vouchers help poor students gain access to the private schools; simultaneously, the vouchers benefit the public secondary schools by reducing overcrowding.

The Colombian experience recalls that of Vermont in the United States, where approximately 95 percent of the state's 246 communities have no public secondary schools. The communities choose instead to pay tuition for their students to attend either private high schools or public high schools in another town. This program has been in place for more than a century "to enable small and geographically distant communities around the state to provide high school education for students without incurring the expense of building their own public schools" (Walberg and Bast 1993, p. 109).

Puerto Rico

Puerto Rico's governor, Pedro Rosello, signed a voucher plan into law in September 1993, which was limited to families earning below a given income.

The vouchers, worth \$1,500, have been portable between public schools, as well as from private to public and public to private schools; religious schools were also included.

Preliminary evidence appears to refute opponents' predictions that a voucher program would ruin the public school system. Of the 1,809 vouchers awarded in the fall of 1993, 1,181 were used by students to transfer from one public school to another, 317 to move from private to public schools, and 311 to shift from public to private schools.

Following opposition and litigation from the teachers' unions, who argued that it was unconstitutional to spend vouchers at schools affiliated with religions, the Supreme Court of Puerto Rico on November 30, 1994, ruled (5-2) that the scholarship program allowing low-income students to attend the school of their choice violated Puerto Rico's constitution. The court, however, permitted the program to continue until the end of the school year (1995). Meanwhile Governor Rosello and other supporters have promised to try to find a way to continue the program.

Milwaukee

One of the most striking examples of a successful voucher system for the poor is found in Milwaukee, Wisconsin, in the United States. Pioneered largely by Democrat representative "Polly" Williams in 1990, the plan originally permitted up to 1,000 low-income students to use state funds (\$2,967 for the 1994-95 school year; the amount is adjusted annually) to attend a private, nonsectarian school of their choice.

The Milwaukee program began operation in 1990 with 300 children using vouchers at six private schools. Five years later (1995) 832 students attended one of eleven participating private schools. The Milwaukee plan has been opposed by various educational establishment groups, including the State School Board Association and the Wisconsin Congress of Parents and Teachers, Inc. This opposition has probably influenced the administrative restrictions that have accumulated recently. Thus in 1994 the state legislature set a ceiling on the program of 1.5 percent of Milwaukee's 100,000 school-aged population, or 1,500 students. The private schools participating in the program must limit voucher students to 49 percent of their student body, which limits the number of places available. Since the program's inception, the lack of space has meant that more students have been turned away than have been accepted into the program. In consequence, spaces are apportioned by lottery (McGroarty 1994).

The Milwaukee scheme, though small, warrants attention because it is the only source of hard evidence on the effects of vouchers in the United States. Comments on the program's performance have been based on the annual reports of Professor John F. Witte, the state-selected outside evaluator. His first reports led some critics to complain that the participating schools suffered excessive attrition (dropouts) and that achievement tests were biased because the

mothers of the families using vouchers had a higher average high-school completion rate than mothers of students who did not use vouchers. These complaints were later rebutted by McGroarty (1994).

Those findings of Witte's evaluations that are unambiguously positive, meanwhile, combat three of the popular fears or predictions about the voucher program, discussed in greater detail in the next section. The first is the suspicion that vouchers will help individuals who are not poor and who therefore need help least. Witte's evidence shows, on the contrary, that "choice families" are among the poorest of the poor. Their average income in 1994 was \$11,625—half the income level of the average family with children in Milwaukee's public schools.

The second commonly expressed fear is that vouchers will lead to segregated and antisocial schools. Evidence supplied by Witte shows instead that the Milwaukee program fosters diversity and that no participating school has been teaching cultural supremacy or separation. "The student bodies of participating [voucher] schools vary from schools that are almost all one minority race, to racially integrated schools, to schools that have used the Choice program to diversify their almost all-white student bodies" (Witte and others 1995, p. 15).

The third fear—that voucher schools will skim off the "cream" of the student "crop"—is countered by Witte's finding that "the program is offering opportunities for a private school alternative to poor families whose children were not succeeding in school. This is a positive outcome of the program" (Witte and others 1995, p. 16).

Other positive conclusions from Witte's reports include the finding of high parental involvement, once in the system, and high parental satisfaction with the program—in particular, that it increased learning and discipline. "Respondents almost unanimously agreed the program should continue" (Witte and others 1995, p. 17).

The case for vouchers rests also on the argued need to weaken the public school monopoly or, in other words, to promote competition. But when competition is introduced, those suppliers who initially lose, or expect to lose, customers will, in self-defense, act to lift the quality of their services. Applied to our education context, five years of the Milwaukee plan is more than enough time for the threatened public schools to have improved under the pressure of new voucher competition. And insofar as vouchers can take some credit for inducing the improvements in tested achievement that have in fact occurred over the years 1990–96 (in public and private schools), findings of no current difference in achievement growth between public and voucher (choice) schools do not unambiguously imply that vouchers have failed to improve efficiency.

The future of vouchers in the United States obviously will be influenced not only by official annual reports, but also by the assessments and responses of the parents. The fact that demand for voucher places in Milwaukee currently well exceeds supply could already be pressuring politicians to allow more families to participate.

United Kingdom

In 1981 the Assisted Places Scheme was established in the United Kingdom with the aim of providing a ladder of opportunity for able but poor students. Under the scheme today, low-income parents can obtain assistance with tuition fees for an independent school if the school has been approved by the Department of Education and Science.

By 1995 about 29,800 students were using these selective vouchers at 294 specified independent schools in England (there is a separate system for Scotland). About 5,000 new pupils enter the program every year, mostly at the ages of eleven or thirteen.

The English experience raises two questions that have implications for the general debate on vouchers discussed in the next section. First, why—in view of the government's stated wish to encourage competition and "market discipline"—is the Assisted Places method so limited in coverage (see U.K. Department of Education 1992)? Second, why are the places limited mainly to able pupils who exhibit the potential for high academic achievement, when such pupils can expect a higher than average lifetime income whether or not they are in Assisted Places? The contrast with Milwaukee's selective voucher, where the low-income students designated for help have not been succeeding in school, is striking.

The voucher principle has also been extended in the United Kingdom to further education and (prospectively) to nursery schooling. Further education colleges (similar to community colleges in the United States) have recently been reestablished as autonomous institutions independent of their former local governments. A new system of "learning agreements"—effectively, individual contracts between a college and a student, specifying the precise qualifications aimed for—enables government funding to follow the student to the college of his or her choice. At the preschool level, the Department of Education declared in 1995 that it was about to extend free entitlement for all four-year-olds to good quality private, as well as public, nursery education (World Bank 1995, p. 4.1). Currently the initiative has been limited to two pilot schemes in East Anglia. The plan, however, is to be extended to all four-year-olds in April 1997 (The Economist 1996).

The Current Debate on Vouchers

As the case for parental choice and competition has gained in popularity, the criticism of those antipathetic to vouchers has increased in intensity. Debate has focused on the potential effects of vouchers on the public benefits connected with education; the possibilities for damage to the quality of public schools on the one hand or to the identity and autonomy of private schools on the other; their impact, if any, on poverty; the issue of windfall gains for the middle class; and the possible effect of a voucher system on the government's administrative costs.

Vouchers and the Market Place

Some view vouchers primarily in terms of a free market that vouchers would encourage. They then see this as a prime example of “economic man” sacrificing social welfare to his selfish pursuit of individual material gain. But economists have long abandoned narrow assumptions about self-interest. As Becker (1993, p. 385–6) observes: “Behavior is driven by a much richer set of values and preferences. [My] analysis assumes that individuals maximize welfare *as they conceive it*, whether they be selfish, altruistic, loyal, spiteful, or masochistic.” A pertinent example is the objections made by the members of the Polish Civic Educational Association in the late 1980s to the national school system inherited from the collapsed Communist regime. Their position was that they wanted to maximize welfare *as they* as individuals saw it, as a welcome change from having welfare defined and imposed by totalitarian authorities or highly centralized bureaucracies. The type of institutions they demanded were nonstate (including religious) private or independent schools (Glenn 1995, p. 127).

A related argument by opponents of vouchers is that a free market would lead to discrimination on grounds of race or disability. Krashinsky (1986, p. 143) argues that vouchers could lead to racial segregation. The usual reply here is to quote Coleman’s (1990) findings that segregation is in fact greater in public than in private schools. Shanker and Rosenberg (1992) suggest in the same vein as Krashinsky that profit-making schools would reject difficult-to-educate children under a voucher system. Lieberman (1991a) found, on the contrary, that the single largest U.S. group of for-profit schools serves the disabled. Blum (1985), meanwhile, provides evidence that urban private schools maintain a higher level of discipline than do public schools.

Another common argument against vouchers is that parents cannot be expected to make sound choices for their children (Bridge 1978, Carnegie Foundation 1992, Levin 1991, Wells and Crain 1992). Others reply that parents simply need some initial experience (hitherto denied them) with making such choices in order to become more adept. A second response is that, in a democracy, any serious impediments to decisionmaking by parents will show up also at the ballot box when they choose political representatives to make decisions on education. A third response is to quote empirical studies demonstrating rational choice for their children by parents who themselves have only modest amounts of education (Fossey 1994).

A further concern—that vouchers (or tax credits) for education might introduce fraudulent practices—is put forward by Murnane (1983), who draws an analogy with food stamps in the United States. Experience there, he observes, shows that unscrupulous parties make claims for fictitious individuals. Schmidt (1995) shows that serious shortcomings of fraud and dishonesty are already present in the public school system. Moreover, and to reiterate, the school voucher largely avoids the black market problem because it is difficult to transfer the rights to education.

Public versus Private Benefits from Education

It is generally accepted that a child's education provides not only private benefits to the family (mainly by prospectively increasing income), but also public benefits (positive externalities). The latter include poverty reduction, economic growth, and the pursuit of common values (see Krashinsky 1986). The economic model supporting this argument is that of "joint supply." One classical example of it is wool production: wool cannot be produced without simultaneously producing meat, and vice versa. Furthermore, a switch from one breed of sheep to another is likely to improve the wool production at the expense of meat, or the converse. Similarly, so the argument goes, the cost of more or improved public benefits from education shows up in fewer, or worse quality, private benefits, introducing an interesting trade-off problem. The public benefits are quite distinct from the private. Thus the inducement to an orderly society that educated citizens bring is one example of a public benefit. The increase in expected lifetime income that education bestows on students is, in contrast, an example of a purely private benefit.

Some economists object to free choice of schooling through a voucher system because they believe families will not trade off private for public benefits but will allocate their expenditures on the basis of their private benefits exclusively. In other words, the valuation that others in society place upon the education of one's child will be neglected, and public benefits will suffer relative to private benefits—the well-known "public good problem."

Proponents of that view, such as Krashinsky (1986) and Levin (1991), claim that public schools have a unique ability to produce the "common values" just mentioned. But this claim also is now contested. Cohn (1979), for instance, observes that, in practice, public schools in the United States have successfully resisted attempts to homogenize their procedures, so that "a student in one school district might receive an entirely different set of common values than his counterpart in another school district" (p. 262). Nevertheless the belief that public schools possess an absolute advantage in producing the "public good" benefits remains strongly entrenched among educationists as well as among some economists.

Private schools are direct producers of externalities (Hettich 1969), and they also generate them *indirectly* (West 1991). It is generally agreed that private schools are more efficient at producing private benefits, through more effective teaching of the basics, such as literacy. This is so partly because public schools are monopolies, while private schools have greater output per dollar because they experience competition. But literacy is also a public benefit, a necessary condition for communicating common values and fostering economic growth. This indirect assistance by private schooling to the production of such public benefits is at least as important as the direct production.

Krashinsky (1986) focuses on what he calls transaction costs, such as the costs of communication in obtaining the public benefits of education. His position is that these costs are too high for the government to contract out to private

suppliers because the public benefits “are so subtle” (p. 155). Even if this were the case, family consumers of private benefits from education could equally claim, bearing in mind the variety of cultural aspirations, that the education quality they seek is so inarticulable that the transaction costs of delegating the task to governments are prohibitive. In any case a central government still faces similar transaction costs in issuing instructions to thousands of school districts, which in turn face even higher costs in supervising tens of thousands of individual public schools.

The public good argument, as employed by Krashinsky, contains a serious theoretical flaw. The classical example of a public good is that of the fishermen who need a lighthouse. Even though all the fishermen in a given area would benefit from the beam of light generated, each one will conceal his true preferences and wait for others to provide it. But because each fisherman in turn will believe in the same way and try to “free ride,” the lighthouse will not be built. Because there is no mechanism parallel to the usual market system leading to the revelation of sincere (true) preferences, so it is argued, we have a case of “market failure.” In the context of education the preferences that are not revealed are those of the “neighbors” who value the education for separate reasons. Krashinsky’s assumption is that the problem will be solved by government intervention. But he assumes unjustifiably that the government possesses all knowledge of the relevant preferences of each and every neighbor. And even if government were to consult everyone individually, individual neighbors would have no more incentive to reveal their true preferences to government than they would on the conventional market. Government failure therefore matches the market failure.

Potential Damage to the Public School System

Unions of public school teachers and administrators frequently contend that a voucher system will destroy the public school system. Krashinsky (1986), for example, argues that middle- and upper-class parents would desert the public system in favor of private schools that discriminate in various ways against poor, disadvantaged, or minority applicants. The poor would be left in gutted, underfunded, and decaying public schools. But this argument rests on the questionable assumption that the public system will refuse to adjust in the face of competition from private schools (Wilkinson 1994). Holmes (1988, p. 23) maintains that “there is no reason why inner city schools of the future, where alternatives are available [with vouchers], will be worse than the ones at the moment where there is no choice.” In addition, Krashinsky’s fear that middle-income parents will desert the public school system with the aid of vouchers has no basis where they are allotted exclusively to low-income families, as they are today in such widely different countries as Bangladesh, Chile, Colombia, Puerto Rico, the United Kingdom, and the United States. By most reports, such systems are improving the condition of the poor relative to those in the rest of society.

Vouchers and Poverty Reduction

Krashinsky's implicit assumption is that the public school system benefits the poor in a way that is superior to any alternative. But low-income families are segregated residentially, and their children are typically allocated to the schools nearest their homes. If they want to choose a better public school in a middle-class area, they must purchase a home there, and the housing prices are usually beyond their means. Middle-class families, by contrast, can move more easily because they are less restricted financially. The result is that the public provision of schooling becomes heterogeneous, with the poor, on average, receiving the worst quality. Vouchers would help remove the barriers to mobility.

Friedman and Friedman (1980) insist that they too favor reducing poverty and promoting equal opportunity but argue that in both respects the voucher system would unmistakably improve things. They contend that liberty, equality of opportunity, and the reduction of poverty are complementary and not competitive goals of the voucher system. Their main argument is that lower-income families, trapped in large city ghetto schools, would benefit most from vouchers. "Are the supermarkets available to different economic groups anything like so divergent in quality as the schools?" they ask. "Vouchers would improve the quality of the public schooling available to the rich hardly at all; to the middle class, moderately; to the low-income class, enormously" (p. 169).

Windfall Gains for the Middle Class

Some opponents of vouchers focus on what they call the inequitable windfall gains for families (usually well-to-do) that customarily purchase private education. In other words costs to governments would increase if vouchers (or tax credits) are extended to rich private school clients not now financed by government (Gemello and Osman 1983). Seldon (1986) points out, however, that *total* costs to government could fall depending on the value of the voucher as a proportion of per capita public school costs. The government savings would occur, according to Friedman (in Seldon 1986, p. 20), if the voucher value was 75 percent of public school costs. The reasoning is that the economies effected by migrants from public to private schools, who would now cost the government 25 percent less than before, would offset the cost of the windfall gain to accustomed users of private schools. (Clearly, because a strong argument put forward by voucher supporters is that private schools can deliver at lower costs than public, their case looks more consistent if they demand vouchers at values less than 100 percent of average per pupil costs in public schools.)

The windfall gains problem could also be handled by making vouchers subject to tax. But selective voucher systems, restricted to low-income families would be even more effective—indeed, such selective vouchers would automatically prevent high-income families now patronizing private schools from enjoying the windfall gains.

Regulatory Threats to Private School Identity

A potential drawback to vouchers has recently been suggested by strong believers in the philosophy of freedom who want to see more competition in schooling but fear that voucher systems would seriously threaten the autonomy of independent schools. Currently the most articulate and influential spokesman for this point of view in the United States is Sheldon Richman (1994). In his words: "It is likely that before schools could accept vouchers, they would be required to meet a raft of standards that before long would make the private schools virtually indistinguishable from public schools" (p. 83). Voucher initiatives that insisted on zero regulation would stand no chance of acceptance, Richman says, because, "as the opposition would inevitably point out, the voucher plan would appear to authorize appropriation of 'public' money to institutions not accountable to 'public authorities'" (p. 84). In the same vein, Gary North (1993) argues: "We will have federal guidelines operating in every voucher-using school, equal opportunity policies and quota systems of every kind, teaching hiring and firing policies, racially and religiously mixed student bodies. There will be a whole army of federal bureaucrats, not to mention state bureaucrats policing every 'private' school" (p. 149).

Friedman has always separated three levels of issues: first, whether schooling should be compulsory; second, whether it should be financed privately or by the government; and third, how it should be organized. His position has been that whatever one's views may be on the first two issues, a voucher scheme would produce a better and a more effective organization than the present one—that is, vouchers remain a superior alternative to a system of schools run and financed by government. Like North and Richman, Friedman sees benefits also in eventually removing compulsion and government finance, but he is primarily concerned with the question of how to get there from here. Vouchers, he believes, are still a practical transitional measure (Friedman 1993).

As for the threat of a government regulatory take-over of private schools, Henderson (1993) points out that these institutions do not have to accept vouchers with all their strings. Others argue also that the recipients of vouchers can and will lobby their government against heavy regulation. Lieberman (1991a, p. 6), meanwhile, argues that the more likely cause of increased regulation will be the political objections to funding both public and private schools while closely regulating only the former. Consequently, Lieberman observes, supporters of vouchers must argue that to approach parity, what is needed is the reduction of the regulation of public schools, not an increase in the regulation of private schools.

The Costs of Implementation

A common concern about the administrative costs of implementing a voucher system is whether the size of the bureaucracy necessary to oversee the total system will have to expand significantly. Wilkinson (1994) finds no reason to

believe that costs such as those associated with monitoring student attendance and quality of education should be any higher for private than for public schools; school quality can be overseen by periodic inspections in the same way as it is in public schools. Even in the unlikely event that administrative costs did rise, such an increase would be more than offset by the savings realized given the evidence cited above that private schooling generally costs less than public. Tax-funded vouchers in the countries described in table 1 are typically valued at considerably less than the public school per capita cost; the Milwaukee plan, for instance, supplies students with vouchers worth about half of the public school cost. It is highly improbable that additional administrative costs could equal such a huge differential. Indeed, a strong argument for governments to use vouchers is the need in these days of budgetary stringency to economize on public spending.

Final Comments

The main purpose of this article has been to provide information on the theory and practice of education vouchers throughout the world and to summarize briefly the principal points raised in current academic and political debates on the issue. Absence of real world evidence has until recently hampered discussion—indeed, until recently, has been adduced by several writers to demonstrate that vouchers were not desirable. But emerging evidence (see table 1) suggests otherwise, and this may well be due to changing circumstances.

During the last two decades governments have become increasingly unwilling or unable to continue to raise the share of public expenditure spent on education. The prime focus has switched accordingly to attempts to obtain higher output from given expenditure levels. The use of vouchers valued at much less than 100 percent of the cost per pupil in public schools has already been successful in Sweden, Milwaukee (United States), and Poland, and may become a popular way of economizing. Economists, meanwhile, see the key role in such efficiency gains to be the gradual removal of the current monopoly structure in education.

Some have argued (for example, Carnoy in this issue) that a central difficulty with the voucher plan is that, even if it is limited to the poor, it “diverts attention from an even greater problem: the much larger investment that societies need to make in low-income children if they hope to overcome the effects of poverty on learning.” Carnoy does not indicate, however, how this larger investment is to be financed. The voucher system could help him, because substantial resources could be made available for his program by switching (by means of vouchers) to the significantly lower cost of education supply that private schools offer.

It is too early to reach firm general conclusions about the effectiveness of vouchers. There are only twenty entries in the table, and these show a wide

variety of design. Those who fear that government regulations associated with vouchers will ultimately strangle the individuality of private schools will insist that this may yet happen. Nonetheless significant numbers of families are now obtaining positive firsthand experience with private schooling through voucher systems. This phenomenon alone could well alter the political climate in their favor.

Notes

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References

The word "processed" describes informally reproduced works that may not be commonly available through library systems.

- Becker, Gary S. 1993. "The Economic Way of Looking at Behavior." Nobel Lecture. *Journal of Political Economy* 101(3, June):385-409.
- . 1995. "Human Capital and Poverty Alleviation." HRO Working Paper 52. World Bank, Washington, D.C. Processed.
- Blum, V. C. 1985. "Private Elementary Education in the Inner City." *Phi Delta Kappan* 66(9):645-48.
- Bridge, Gary, 1978. "Information Imperfections: The Achilles Heel of Entitlement Plans." *School Review* 86(37):504-29.
- Carnegie Foundation for the Advancement of Teaching. 1992. *School Choice*. Princeton, N.J.
- Cohn, Elchanan. 1979. *The Economics of Education*. Cambridge, Mass.: Ballinger Publishing Company.
- Coleman, James. 1990. *Equality and Achievement in Education*. Boulder, Colo.: Westview Press.
- Easton, Stephen T. 1988. *Education in Canada*. Vancouver, Canada: Fraser Institute.
- Economist, The*. 1996. "Catch 'em Young." October 26, p. 68.
- Flew, Antony. 1995. *All the Right Places*. London: Adam Smith Institute.
- Fossey Robert. 1994. "Open Enrollment in Massachusetts: Why Families Choose." *Education Evaluation and Policy Analysis* 16(3):320-34.
- Friedman, Milton. 1993. "Letter to the Editor." *Freeman* (July):321.
- Friedman, Milton, and Rose Friedman. 1980. *Free to Choose: A Personal Statement*. New York: Harcourt, Brace, Jovanovich.
- Gemello, John, and Jack Osman. 1983. "The Choice for Public and Private Education: An Economist's View." In Thomas James and Henry M. Levin, eds., *Public Dollars for Private Schools*. Philadelphia, Pa.: Temple University Press.
- Glenn, Charles L. 1995. *Educational Freedom in Eastern Europe*. Washington, D.C.: CATO Institute.
- Henderson, David R. 1993. "Why We Need School Choice." *Insight* 43(January 10):26-29.
- Hettich, Walter. 1969. "Mixed Public and Private Financing of Education: Comment." *American Economic Review* 59(March): 210-12.

- Holmes, Mark. 1988. "The Funding of Independent Schools." In James E. Lam and G. Benjamin, eds. 1988. *Public Policy and Private Education in Japan*. London: Macmillan.
- Krashinsky, Michael. 1986. "Why Educational Vouchers May Be Bad Economics." *Teachers College Record* 88(2, Winter):139-51.
- Levin, Henry M. 1991. "The Economics of Educational Choice." *Economics of Education Review* 10(2):137-58.
- Lieberman, Myron. 1991a. "The Case for Voluntary Funding of Education." Policy Study 37. The Heartland Institute, Chicago, Illinois. Processed.
- Lieberman, Myron. 1991b. *Privatization and Education Choice*. New York: St. Martin's Press.
- Lockheed, Marlaine E., and Emmanuel Jimenez. 1994. "Public and Private Secondary Schools in Developing Countries." HRO Working Paper 43. World Bank, Washington, D.C. Processed.
- Lynn, Robert. 1986. "The Japanese Example of Indirect Vouchers." *Economic Affairs* 6(6):25-27.
- Matte, Patricia, and Antonio Sancho. 1993. "Primary and Secondary Education." In Christian Larroulet, ed., *Private Solutions to Public Problems*. Santiago, Chile: Instituto Libertad Y Desarrollo.
- McGroarty, Daniel. 1994. "School Choice Slandered." *The Public Interest* 117(Fall):32-41.
- Murnane, Richard J. 1983. "The Uncertain Consequences of Tuition Tax Credits: An Analysis of Student Achievement and Economic Incentives." In Thomas James and Henry M. Levin, eds., *Public Dollars for Private Schools*. Philadelphia, Pa.: Temple University Press.
- National Program of Self-Administration for Educational Development (PRONADE), October 1996.
- North, Gary. 1993. "Education Vouchers: The Double Tax." *Freeman* 43(6):72-81.
- OECD (Organization for Economic Cooperation and Development). 1994. *School: A Matter of Choice*. Paris.
- Oakland, William. 1994. "Fiscal Equity." In John E. Anderson, ed., *Fiscal Equalization for State and Local Government Finance*. London: Praeger Publishers.
- Richman, Sheldon. 1994. *Separating School and State*. Fairfax, Virginia: The Future of Freedom Foundation.
- Schmidt, Paul. 1995. "Looking the Other Way." *Education Week* 14(21):23-27.
- Seldon, Arthur. 1986. *The Riddle of the Voucher*. Hobart Paperback 21. London: Institute of Economic Affairs.
- Shanker, Albert, and Brian Rosenberg. 1992. "Politics, Markets, and American Schools: A Rejoinder." In P. R. Kane, ed., *Independent Schools, Independent Thinkers*. San Francisco, Calif.: Jossey-Bass.
- Tucker, Allyson M., and William F. Lauber, eds. 1995. *School Choice Programs: What's Happening in the States*. Washington, D.C.: Heritage Foundation.
- U. K. Department of Education. 1992. *Choice and Diversity*. London.
- Walberg, Herbert J., and Joseph L. Bast. 1993. "School Choice: The Essential Reform." *CATO Journal* 13(1).
- Wells, A. S., and R. L. Crain. 1992. "Do Parents Choose School Quality or School Status? A Sociological Theory of Free Market Education." In P. W. Cookson, ed., *The Choice Controversy*. Newbury Park, N.Y.: Corwin Press.
- West, Edwin G. 1991. "Public Schools and Excess Burdens." *Economics of Education Review* 10(2, July).
- . 1996. "Education Vouchers in Practice & Principle: A World Survey" (full report). Available on request from the author at Carleton University, Department of Economics, 1125 Colonel By Drive, Ottawa K1S 5B6, Canada. Processed.

- Wilkinson, Bruce. 1994. *Educational Choice: Necessary But Not Sufficient*. Montreal, Canada: Institute for Research on Public Policy.
- Winkler, Donald R., and Taryn Rounds. 1993. "Municipal and Private Sector Response to Decentralization and School Choice." HRO Working Paper 8. World Bank, Washington, D.C. Processed.
- Witte, John F. and others. 1995. *Fourth Year Report: Milwaukee Parental Choice Program*. Madison, Wisc.: Department of Public Instruction.
- World Bank. 1995. "Education Reform in the United Kingdom: Autonomy with Accountability." Human Development Department. Washington, D.C. Processed.