

Education Contracting: Scope of Future Research

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Abstract: This paper reviews the evidence on the impact of education contracting models in developing and transition countries, as well as a few European countries, including school voucher programs and voucher-like initiatives, charter schools and variants in other countries, and private finance of school infrastructure arrangements. The paper concludes by citing the paucity of research for models other than voucher-like programs and calls for a priority research program of rigorous impact evaluations of education contracting models in developing countries

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Introduction

School choice is often promoted as a means of increasing competition in the school system (Friedman 1955). It is believed that competition will lead to efficiency gains as schools – public and private – compete for students and try to improve quality while reducing expenses (Hoxby 2003a; Neal 2002). By encouraging more private schools, vouchers will allow school managers to become innovative and thereby bring improvements to the learning process. Public schools, in order to attract the resources that come with students, will need to improve. Thus, school choice will lead to improved learning outcomes and increased efficiency. Opponents claim that under a voucher system private providers will be unaccountable to taxpayers and the public. Claims of efficiency gains are also questioned. Further, critics sometimes claim that choice will lead to privatization, less public (government) control of education, and increased segregation (Ladd 2002). While the United States literature on school choice is extensive, the international literature is small, yet growing. Except for the United States, there are very few rigorous impact evaluations; even fewer random evaluations. Kremer (2003) shows that this is especially true for developing countries.

Governments around the world recognize the importance of education, and in most countries the state is both the major financier and provider of education. However, government efforts to expand schooling have not reached all members of society equally. While governments may have an interest in promoting and financing the market for education, it does not necessarily follow that the public sector has a role in providing that education. In many countries, there are other providers of education, such as church schools, home schools, and private schools, both for-profit and not-for-profit. By extending financing to these other education providers through vouchers or grant programs, governments would give all parents, regardless of income, the opportunity to participate more fully in their child's education by choosing the school that is right for them.

While there are many ways to get elements of choice in school systems, as well as many means of including the private sector in the provision of services at the compulsory level, here the concern is with forms of contracting for service delivery. In this paper, contracting refers to the process whereby a government procures education or education-related services, of a defined

volume and quality, at an agreed price, from a specific provider for a specified period where the provisions between the financier and the service provider are recorded in a contract.

Many forms of contracting are used in education—depending on which services are procured or bought from the private sector (Table 1). In some cases, governments buy inputs, services involved in the production of education services such as management or curriculum design or the use of a school facility. In other cases, governments contract with an organization to run a public school, undertaking all the activities involved in this process. In still other cases, governments contract with a private organization to provide education to a specific student (paying for enrollment), thus buying an output. More recently governments have entered into contracts to have the private sector finance and build schools which they may or may not run.

Table 1: Types of Contracts in Education			
What government contracts for		Definition	Contract types
1	Management, professional services (input)	Government buys school management services or auxiliary and professional services	Management contracts Professional services contract (curriculum design)
2	Operational services (process)	Government buys school operation services	Operational contracts
3	Education services (output)	Government buys student places in private schools (contracts with school to enroll specific students)	Contract for education of specific students
4	Facility availability (input)	Government buys facility availability	Provision of infrastructure services contracts
5	Facility availability and education services (input and output bundle)	Government buys facility availability combined with services (operational)	Provision of infrastructure contracts with education services contracts
Source: World Bank 2005			

Looking at Table 1, there is not much information on contract form number 1—management. Contract form number 2, operational services, can be combined in brief to include charter schools and variants. Number 3, education services, will be treated as vouchers here, although there are many cases around the world of school places being bought from the private sector by the government, including: Australia, Bangladesh, Belize, Canada, France (Catholic schools), Japan, Korea, Poland and the UK (Patrinos and Ariasingam 1997; Patrinos 2000).

Contract forms numbers 4 and 5 can be referred to as Private Finance Initiatives (PFI) and extensions, although there are yet no cases of number 5 in operation in education in any country in the world at present. Although there has been limited success in establishing government-financed school voucher experiments in the K-12 education system in the United States, the use of vouchers and voucher-like programs as mechanisms for enhancing parental choice in the education sector is common in many countries around the world.

A recent review (World Bank 2005) of the available evidence on contracting experiences around the world indicated that: (a) contracting with schools to enroll publicly funded students is used extensively and has proven to be a good strategy for rapidly expanding access to education, while avoiding large public sector capital costs; (b) contracting for support services (meal provision, facility maintenance) is also used extensively, usually with positive results; (c) contracting for management services is one of the most important issues, but it is also very difficult to implement, not least because of the challenge of identifying measurable and verifiable performance criteria; (d) contracting a private actor to operate a public school has proven controversial in some countries, regardless of results; (e) a few countries are experimenting with contracts for private financing and construction of schools; (f) an extension of the private finance model is contracting for private actors to run schools, as well as finance and build them, a model that has not yet been tried in education; and (g) contracting for professional services (curriculum design) is also fairly easy to specify and monitor. In terms of this framework, it is clear that there are many education contracting examples (see Table 2).

Table 2: Selected Education Contracting Examples		
Vouchers-type schemes	Charter schools	Private Finance Initiatives
<u>OECD</u> : Belgium, Denmark, Italy, Netherlands, Spain (pre-school, Valencia), Sweden, USA	<u>OECD</u> : USA	<u>OECD</u> : Australia, Canada, Germany, Ireland, UK
<u>Developing/transition</u> : Chile, Colombia, Cote d'Ivoire, Czech, Hungary	<u>Developing/transition</u> : Colombia, Fe y Alegría *	<u>Developing/transition</u> : Colombia
Source: Patrinos 2000		
* Catholic school provision in poor areas in 14 Latin American countries and Spain under contract with governments in each case		

The World Bank (2005) review also concluded that there was little evidence on the effectiveness of most forms of contracting, especially outside of the United States, and especially beyond vouchers. Therefore, more evaluations, rigorous, and random if possible, are needed, on what works, where, why and how. Since the United States' experience with contracting – albeit only with vouchers and charter schools – is well documented and we have many quality evaluations, and reviews have been undertaken elsewhere (Hoxby 2003a, 2003b; Murnane 2003; McEwan 2004), we focus here on developing and transition countries. In addition, we have included a few examples from some European countries with interesting modalities. While the general lack of random impact evaluations in education in developing countries is well documented (see Kremer 2003), there are also too few non-experimental rigorous evaluations.

In general, the best evaluations use designed experiments that randomly assign benefits and include a true control group. In the absence of that specific design, or some form of natural experiment, rigorous techniques, such as propensity score matching, local average treatment effects, regression discontinuities, and so on, are preferred. Outcomes to evaluate could be cost-savings, increases in enrollments, and improvements in learning, among others. Analysis could also include how the contract was awarded and the financial model in operation, focusing on the flows of funds, their usage, and a comparison with public schools.

The many benefits of contracting also make such projects highly amenable to proper impact evaluations. A proper – that is random and/or rigorous – evaluation can produce different

and more precise results than one would get with typical retrospective evaluations. They also allow one to identify program failures and shed light on behavioral parameters, as well as on impact of the program (Kremer 2003).

Different types of education contracts may have made it possible to increase enrollment. However, since these programs require public financing it is therefore important to rigorously evaluate any impacts that they may have had on schooling.

Vouchers

There are few systematic evaluations of the effects of vouchers. Experiments in the United States have produced mixed results in terms of student achievement. Vouchers are well researched, especially in the United States. However, the use of vouchers still remains a controversial concept, throughout the world, even though there are still mixed results but generally positive in the United States. However, the voucher experiments in the US are relatively small and focused on a few cities. A similar initiative is currently being undertaken in a few regions of Italy. An immediate outcome was that the cost of private schooling declined. Using a longitudinal study of voucher recipients, Brunello and Checchi (2005) find that Italian private schools may be selected for reasons other than quality considerations. Also, by exploiting individual data on voucher applicants, they present evidence that the percentage of voucher applicants is higher when the average quality of private schools is higher.

Large-scale, universal programs exist in a few European countries. Some, such as those in Denmark and the Netherlands, are so old and well established that it is almost impossible to evaluate them in the usual sense. Denmark has a long tradition of private schooling. In 1814, government legislation made seven years of education compulsory (Patrinos 2001). However, compulsory education was loosely defined, and people remained free to educate their children as they saw fit as long as children received instruction in the principal subjects. Continuing in this tradition, any group of parents today can claim public funding by declaring themselves a private school if they have at least 28 students. Most private schools in Denmark are religious institutions. The state preserves their religious freedom by fully funding all schools that meet the following requirements: teachers are licensed; a core curriculum prescribed by the state is taught;

and students meet quantified academic standards. All schools and universities in Denmark receive grants according to the number of students enrolled in the institution. The state allocates grants to private schools corresponding to approximately 80 percent of the total expenditure of the schools. It is assumed centrally that private schools are less costly than public ones, and private schools are mandated to charge parents for at least some of the costs. About 12 percent of all Danish children attend a private school, and this percentage has been increasing in recent years. While there is no evaluation per se of Denmark's public financing of private schools, an OECD (1994) report finds that the Danish system does not create problems such as bogus schools, creaming of the middle class, or inadequate instruction. Moreover, teacher unions are not opposed to school choice. However, it is noted that Denmark has no formal mechanism for disseminating information about schools' methods, programs or academic results.

Similarly, the Dutch education system has been decentralized and demand-driven since 1917 (Ritzen and others 1997; Patrinos 2002). Almost 70 percent of schools in the Netherlands are administered and governed by private school boards. Public and private schools are funded by the government on an equal footing, and most parents have a choice of several schools near their homes. Parental choice has spurred some schools to develop a unique profile and to improve the education they offer. While schools are free to determine what is taught and how, the Ministry of Education does impose a number of statutory quality standards. The Education Inspectorate is charged by the Minister of Education with supervising the manner in which schools fulfill their responsibilities. In recent years, there has been a trend towards greater autonomy and decentralization. Many central government powers have been transferred to the level of the individual school. Central government control is increasingly confined to broad policy-making and to creating the right conditions for the provision of quality education. Institutions are being given greater freedom in the way they allocate their resources and manage their own affairs, although they still answer to government for their performance and policies. Schools receive extra funds to combat educational disadvantage. Additional funding is provided for schools in districts and regions with high numbers of underprivileged families. Although there are no evaluations of what is perhaps oldest version of school choice in the world, indications are that Dutch students are among the best educated in the world (according to

TIMSS and PISA results), and that the system produces very low levels of learning inequality (Patrinos 2003).

Some more recent universal choice systems are easier to rigorously evaluate. These include examples from the Czech Republic, Sweden, Chile, and Colombia. The sweeping changes that ended communism in the Czech Republic had a major impact on the education system. Immediately after the transition period began, private schools became legal and public funding was subsequently reformed so that private schools received funding in proportion to the number of students enrolled. This funding formula also became policy for public schools. About 4 percent of students attend private schools overall, but as much as 14 percent at the upper secondary level, up from 1 and 3 percent in 1991. A direct analysis of the impact of vouchers on private and public schools was recently undertaken, using the Czech experience as a sort of natural experiment and comparing outcomes over time. This study finds that private schools have arisen in response to market incentives (Filer and Munich 2002). Private schools are more common in fields where public school inertia has resulted in an under-supply of places. Private schools are more common where the public schools are doing a worse job fulfilling their primary educational mission. Public schools facing private competition improve their performance by, for example, spending a larger fraction of their resources on classroom instruction and significantly reducing class size. Czech public secondary schools facing significant private competition in 1995 substantially improved their relative success in obtaining university admissions for their graduates between 1996 and 1998.

In the early 1980s, less than 1 percent of Swedish children attended private schools, even though half of the private schools did not charge fees and citizens felt the centralized public schooling system was monochrome and unresponsive. A series of reforms in the early 1990s introduced greater parental influence through the devolution of school funding and management. New school enrollment rules allowed money to follow students, and municipalities were required to provide capitation grants to each private school equal to 85 percent of the public school cost. This new funding system enabled nearly 90 percent of the private schools to be free from charging fees. As a result, enrollments in private schools continue to grow, from less than 2 percent in 1992 to more than 10 percent in 2003. Evaluations generally show positive results.

Ahlin (2003) shows a significant effect on public schools from competition in math, but not in English and Swedish. Also, immigrant children tend to gain more from school competition, but competition has an adverse effect on results in English and Swedish for students from low-education families. Sandström and Bergström (2005) find that results improve for public school students when the degree of competition from private schools increases. Also, the share of student in private schools is larger if academic achievement of public school students was low prior to the enactment of the reform.

Chile is the only developing country – if one excludes the transition countries – to have a universal voucher program in place. In 1980, all school property was transferred from the education ministry to the municipalities and teachers became municipal employees. Each month, individualized grants were given to each municipality based on the number of students attending class in the municipality's schools. The municipal authorities also fund student attendance at subsidized private schools, which parents can choose. There also are private schools operating outside of the voucher system, which do not receive any public funding. Subsidized-private schools have proven to be slightly more cost-effective than municipal schools. While test scores are similar in municipal and subsidized-private schools after controlling for socioeconomic status, unit costs are lower in the subsidized-private schools. The Chilean literature is extremely controversial and there is a need for a review of the existing works. Few other countries have been subject to this level of scrutiny. Some claim that the private school advantage disappears when student-level socioeconomic data are included and that the cost-effectiveness of Catholic schools declines when real costs are included (McEwan and Carnoy 2000). Another study finds no evidence that choice improved average educational outcomes as measured by test scores, repetition rates and years of schooling (Hsieh and Urquiola 2003); however, they find evidence that the voucher program led to increased sorting, as the “best” public school students left for the private sector. This study has been subject to criticism not least because of the reliance on post voucher plan data and no preprogram trends (Hoxby 2003). The identification problem is serious in Chile. Since the Chilean school choice reform did not include any arbitrary exclusions – when Chile introduced school choice the same law applied across the entire country, as is the case for several other universal choice plans – making the variation in school choice that arose endogenous. Nevertheless, there are some very good papers comparing public and private

schools (see, for example, Beyer 2003; Contreras 2001; Mizala and Romiguera 2000; Vegas 2002). Sapelli and Vial (2002, 2004) have taken into account some of the deficiencies of previous studies, especially in terms of lack of control for selection bias, homogenous treatment effect, and assumption of same budgets for voucher schools. When they control for selection, they find small average treatment effects but large treatment on the treated effects. They also reject the hypothesis that peer effects explain the positive results.

In the 1990s Colombia experimented with a targeted voucher program designed to give students from poor families' access to secondary schooling. Selected students – the program was oversubscribed so a lottery was put in place to randomly assign students to private schools with excess capacity – were provided with vouchers. Taking advantage of the random design, several rigorous evaluations have shown the program to be a success (Angrist and others 2002). The vouchers have increased educational opportunities for the poor, and achievement results are positive for many students. The program led to considerable enrollment increases, especially for the disadvantaged, at a low cost to government. The Colombia voucher program grew substantially, incorporating more than 125,000 students from poor families, was efficient in terms of lower unit cost per beneficiary student, and provided education of at least comparable quality to that provided in public schools. Per beneficiary cost of the program was about 77 percent of the unit cost of public secondary education (King and others 1997). The program increased test scores by two-tenths of a standard deviation in the distribution of potential test scores (Angrist, Bettinger and Kremer 2004).

Charter Schools

A good deal of research has been done on the impact of contracting charter organizations to run schools in the United States (see, for example, Hoxby 2004; Bettinger 2000; Belfield and Levin 2001; Hanushek, Kain and Rivkin 2002; Bifulco and Ladd 2004). Taken together, the findings are inconclusive. A few studies have found significant performance improvements, several have found either no impact or a deterioration in school performance (for a review, see LaRocque 2004).

In Latin America, an example of extensive contracting is the Fe y Alegría (FyA) school network (Swope and Latorre 2000). FyA operates schools in 14 Latin American countries, serving more than one million students. Essentially, they operate public schools. FyA is a non-governmental organization affiliated with the Catholic Church. By agreement with government, teacher salaries are publicly funded, while communities and the private sector cover other costs. Evaluation of the program in nine countries indicates that schools integrated into Fe y Alegría outperform traditional public schools, with lower repetition, lower dropout rates, and higher overall rates of progress in school and higher overall retention rates. Fe y Alegría schools consistently come out on top in performance tests. Furthermore, the overall retention rate in FyA schools is 11 percent higher than that of the corresponding public schools. Swope and Latorre (2000) compared FyA and public schools in nine Latin American countries. They found that unit costs in FyA schools were higher than in public schools when the community contribution was factored in. However, they also found that: schools in the FyA network were successful in reducing repetition and dropouts, with FyA schools in a majority of countries having lower repetition rates and definitive dropout rates than other public schools; and progression rates and retention rates were 44 percent and 11 percent higher in FyA schools than in other public schools.

The City of Bogota, Colombia has introduced the *colegios en concesión* (concession schools) program, under which the management of some public schools is turned over to high quality private institutions (Corpoeducación 2004; Escovar and Franco 2002; Quintero 2002; Villa and Duarte 2002). The concession schools program was developed in the late 1990s and the first schools began operating in 2000. There are currently 25 schools (serving 26,000 students) being operated by private managers under the concession model. The program is designed to overcome some of the problems faced by public schools, such as weak leadership, inability of schools to select their own personnel, lack of labor flexibility, lack of equipment and supplies, bureaucratic red-tape and the politicization/unionization of the education sector. Under the program, private schools and education organizations bid in a competitive process to manage newly built schools in poor neighborhoods of Bogota. Contractors may manage one or a group of schools. Schools are paid \$506 per full-time student per year (well below the average annual cost of a student who attends a half-day public school), must provide educational services to poor

children and must accept all students. Management contracts are for 15 years. The provider has full autonomy over school management and is assessed based on results. Failure to meet educational outcome targets such as standardized test scores and dropout rates for two consecutive years can result in the cancellation of the contract. Schools are monitored through private inspection firms, the Ministry of Education, and a Ministry-financed evaluation. While true impact evaluations have not yet been undertaken, initial results from the process assessments show that it has led to a number of management improvements, including a reduction in the share of the budget allocated to human resources (from 90 percent to 55 percent), which has freed up money for nutritional support, as well as the purchase of textbooks and teaching materials. Educators have expressed satisfaction with the greater autonomy that schools enjoy.

Private Finance Initiatives (PFIs)

The United Kingdom, starting in 1997, pioneered initiatives to contract with private consortiums to provide school facilities. A consortium is a group of private actors that come together to perform contracted services. In the UK, consortia often include a construction company; a facility management company; and an operator of schools. Based on successful experience in hospitals, prisons, and other social sectors, the government believed that, by expanding the private sector's role to include financing, building, owning, and running school facilities, it could get better value for money and could give education authorities more time to focus on their core responsibilities of running schools. The UK government emphasized the benefit of involving private actors in financing public infrastructure, and the multisector initiative was called the Private Finance Initiative (PFI). Government agencies implementing a project to involve the private sector in school infrastructure establish a long-term contract for the availability and maintenance of education facilities. The contracted services may include financing, designing, building or renovating, and keeping the school in good working order. As noted above, the contracts allowed the UK government to avoid a large, upfront capital outlay by instead providing the private consortium a steady stream of payments to repay the capital investment over the contract life as well as cover operating costs.

Canada, Australia and other countries have implemented similar PFIs to expand private involvement in financing and providing infrastructure. The decision to require the private groups

to finance facility development has meant that only for-profit entities are involved in the project—because the nonprofit sector has very limited ability to fund large capital developments.

Although arrangements can differ widely, infrastructure-focused PFIs have a number of characteristics in common. The private consortium is selected via a competitive tender process. Private sector partners invest in school infrastructure and provide related non-core services such as building maintenance. The government retains responsibility for delivering core services such as teaching. Arrangements between the government and its private partner are governed by long-term contracts—usually 25 to 30 years. Contracts specify the services the private contractor must deliver and the standards that must be met. Service contracts are often bundled, with the private sector taking on several functions such as design, building, maintenance, and employment of some non-core staff. Payments under the contract are contingent upon the private operator's delivering services to an agreed performance standard.

There is less evidence on the impact of contracting for the delivery of education services, although some a few studies have been carried out by the Treasury and the National Audit Office in the UK; Australia's Department of Education and Training; and the US General Accounting Office that have assessed PFIs on the price and timeliness of delivery of infrastructure. What we have are studies (such as by). But in the Canadian province of Nova Scotia, a PFI model was used to build 39 schools in the late 1990s. A KPMG review of the scheme was unable to show whether or not these projects achieved value for money partly because the bureaucracy had never prepared a public sector comparator against which to compare the PFI outcomes (see LaRocque 2005).

Conclusions and a Proposal for Future Research

Information on school contracting is mixed, according to the type of option. Namely, we know a lot about voucher programs in the United States, as well as the charter school experiments. We know much less about other contracting forms in other countries. Therefore, impact evaluations are needed to increase the information base so that policymakers can make informed decisions. While the assessment literature for innovative education contracting programs is increasing rapidly over time, most of the research is for the United States. Meanwhile, there are some very interesting programs in developing and transition countries that are not receiving much attention and merit further investigation.

The evaluation of programs is fundamental for the selection of successful public policies. In effect, a positive evaluation may lead to the realization of the importance of investing part of the national budget in a program with proven results. A negative evaluation, on the contrary, may imply considerable savings for the public treasury since it is possible to cancel programs that, without the evaluation, would have continued and maybe even extended.

A series of studies is proposed, using proven techniques of program evaluation. There is a need for multi-country, multi-institutional, multi-year initiative, with various sources of funding, and a common methodological framework, perhaps under an organizing committee. The research could go beyond even analyzing what works, but rather why it works or not, how, and under what circumstances.

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