Public schools - and private
Which are more efficient?*

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One of the arguments for allowing the private sector to assume a larger role in the provision of education is that it would increase efficiency, as administrators become more responsive to the needs of students and their parents. But what is the evidence?

Based on case studies that compare private and public secondary education in Colombia, the Dominican Republic, the Philippines, Tanzania, and Thailand, private schools students generally outperform public school students on standardized math and language tests. This finding holds even after accounting for the f act that, on average, private school students in these countries come from more advantaged backgrounds than their public school counterparts.

In addition, preliminary evidence shows that the unit costs of private schools are lower than those of public schools. Although these results cannot, in themselves, be used as arguments for massive privatization, they show that governments should reconsider policies that restrain private sector participation in education.

There naturally are caveats for both sets of findings.

The arguments

Most developing countries provide public education at the elementary and high school levels. Such schools enroll approximately 90 percent of primary and 70 percent of secondary school students and are free, or almost free. But tightening fiscal constraints in many countries have limited the public sector's ability to expand free public education, creating a particularly serious problem for the poorest countries, where demand for schooling is projected to increase dramatically in the coming decades. One possible solution is to charge a tuition fee for public school, and many countries have adopted this policy.

Another option is to rely on private schools to handle al least part of the expansion by relaxing restrictions on establishing or expanding private schools, providing loans to and information about them, and restricting the number of available places in public schools. Such policies would not only generate more resources for education but could also lead to greater efficiency and improved quality. Private schools compete for students, after all, and are accountable to parents who pay the bills. This view holds that private schools have an incentive to adopt teaching practices and use staff and educational materials effectively and economically. And if public schools were also torced to compete with private schools for students, they too might become more efficient.

The studies

This article summarizes the results of the few studies that rigorously compare private and public schools costs and achievement in developing countries. These studies were sponsored by a World Bank research project. And analyze data on secondary schools in several educationally diverse countries: Colombia, the Dominican Republic, the Philippines, Tanzania, and Thailand.

The studies share several characteristics, of which the two most important are a common methodology and

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comparable results. The common methodology is important for two reasons. First, in attributing differences between the cognitive achievement of students in public and private schools to school resources alone, ¡t ¡s important to control for such non-school factors as family background and to ensure that there is enough overlap in the characteristics of the students so that the sub-samples are truly comparable. And second, to obtain efficiency, differences in achievement must be compared with differences in cost.

The method

A simple comparison of the average student's score on a standardized test is generally not a fair evaluation of the difference between public and private schools for several reasons. First, there are methodological issues. The backgrounds of public and private school students are generally different, and this may affect the results. For example, private school students may do better, not because of the school, but because their parents provide an environment that is more conducive to scholarship. To make a proper comparison of public and private schools, then, the analyst must purge the influence of background factors from the achievement scores. The statistical technique used in these studies measures the differences in public and private school achievement for a given level of background variables.

But what ¡f the analyst cannot reliably measure some background variables? For example, parent's education may be a good measure of the home environment's effect on achievement, and this variable can be measured. But it may be impossible to measure all the non-school or family background effects (for instance, motivation). One strategy is to use panel data and compare the differences in public and prívate achievement over two time periods. Non-school effects that do not change over that time are netted out. The studies of the Dominican Republic and Thailand use change in achievement across two time periods rather than the level of achievement in a given time period.

As far as we know, analysts have published this type of value-added results for only one other data set (for U.S. high schools, see Coleman, Hoffer, and Kilgore 1982; Lee and Bryk 1988; and Hanushek 1986).

Another important methodological issue is selection bias. Statistical comparisons, such as those described above, may be biased if observed samples were preselected into each type of school in a systematic way. For example, suppose that only the most motivated parent living in a low-income neighborhood sent his or her child to a private school rather than to a public school. Using the ordinary model to predict how this student would perform in an alternative system might be misleading. All the studies reviewed here use standard statistical corrections (Heckman 1979; Willis and Rosen 1979) to eliminate selection bias.

A final methodological contribution is that the Dominican Republic study -unlike most of the studies-differentiates between types of private schools. This is important since observers claim that differences in the quality and type of private schools make it difficult to compare them with public schools that are more homogeneous. The two types of private's schools are the more prestigious schools (F-type), which are authorized to give Ministry of Education examinations, and the ordinary, or O-type, schools, which are not.

The findings

Do private schools provide a better education than public schools? A principal finding of these studies is that, given student background, students in private schools generally outperform their public school counterparts on standardized mathematics or language tests, or both (table 1, column 1). For example, in Colombia, a student with the background of the average public school student would score 1.13 times (13 percent) better in a private school than in a public school. This ratio varies considerably across countries but ¡s consistently greater than one for all subsamples and achievement test (with the possible exception of mathematics achievement in the Philippines, where the differences are insignificant).

Some caveats: The case studies focus on secondary school students a may not hold for other levels, even in the same countries. Moreover, it would not be valid to make any strict cross-country comparisons regarding the magnitudes of the results. The tests are not standardized across countries. And because the data sets were designed by different researchers, the student background variables being held constant are only roughly equivalent.

Do these results hold for students from different socioeconomic groups? Qualitatively, yes. The private school advantage persists even when the computations hold constant the background of the higher-status average private school student rather than that of the average public school student.

What about efficiency? Preliminary/ calculations based on school expenditure data indicate that, on average, the unit costs for private schools are generally lower than those for public schools (table 1, column 2). Thus, the ratio of relative effectiveness to relative cost is consistently greater than one (table 1, column 3). These results indicate that private schools are more efficient than public schools, al least for secondary schools in the sample countries.

Some more caveats: The orders of magnitude are rough, and the cost data are not comparable across the five countries. Second, the cost figures generally do not include educational expenditures not paid to schools –or the implicit subsidy provided by the priests and nuns teaching in sedarían schools. But an initial check shows that such implicit subsidies are not large enough to significantly change the qualitative results. Third, there is considerable variability within each school type. And fourth, the cost figures could change if a big percentage of students shifted to private schools.

The significance for policy

One immediate implication for policy is that over restrictive regulations on private schools (including outright prohibition in some countries) may be suppressing an efficient way to provide education.

Another implication for policy is that, in some cases, governments could encourage greater private sector participation in education. It should be stressed, however, that the relative efficiency of private schools in highly dependent on the institutional regime and structure of incentives under which they currently operate. Government subsidies, for example, may not necessarily lead to greater efficiency in the educational system. Such subsidies could be associated with institutional changes that reduce the school's ability to choose a suitable input mix and to strive for greater efficiency.

A final implication for policy is that public schools could emulate at least some teaching and administrative

Table 1. Relative average cost and efficieney of public and private schools

Country	(i) Ratio of private to public effectiveness[a]	(2) Ratio of private cost to public cost	(3) Ratio of relative effectiveness to relative cost
Colombia	1.13	0.69	1.64
Dominican Republic			
Ordinary	1.3.1	0.65	2.02
Prestigious	1.47	1.46	1.01
Philippines			
Math	1.00	0.83	1.40
English	1.18	0.83	3.17
Pilipino	1.02	0.83	1.20
Tanzania	1.16	0.69	1.71
Thailand	2.63	0.39	2.62

[a] As measured by predicted test scores

practices of their private counterparts. The usual assumption in considering government policies toward private schools is that the quality of education they provide is not commensurate with what is being paid by the consumers, due to the asymmetry of information between consumers and providers. This widely held assumption is complemented by the view that bureaucrats have better information regarding the technology of education. The evidence, however, is that private schools, which are more autonomous and responsive to students and their parents, will deliver education in a cost-effective way.

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