

Private Non-State Sector Engagement
in the Provision of Educational Services
at the Primary and Secondary Levels
in South Asia

An Analytical Review of Its Role in School Enrollment
and Student Achievement

Mahesh Dahal

Quynh Nguyen

The World Bank
South Asia Region
Education Unit
June 2014



Abstract

Private (non-state) sector engagement in the provision of educational services at the primary and secondary levels in South Asia has recently undergone remarkable growth. This type of education comes in various forms, such as schools financed and managed by the private sector, schools financed by the government and managed by the private sector, private school vouchers, and tutoring outside the classroom. According to recent household survey data, almost one-third of school-goers aged 6 to 18 years in South Asia go to private schools, with a high concentration in Bangladesh, India, Nepal, and Pakistan. Data for India, Nepal, and Pakistan show that on average, private schools perform at least as well as government schools on student test scores, after controlling for socioeconomic factors, and they do so at significantly lower costs to society. However, student achievement

varies greatly across schools of each type, with many weak private schools as well as strong government schools. Substantial, albeit indirect, evidence points to teacher behavior and accountability as an important driver of the effectiveness of private schools. In the long run, however, many factors may play important roles in sustaining the private sector's advantage. Another risk is that overall poor quality in a large government sector may set a low benchmark for the private sector. The findings cast doubt on the effectiveness of government regulations for private schools, given weak institutional capacity. Public-private partnerships with effective accountability mechanisms could leverage both equity and efficiency. Finally, it appears important to understand and customize teaching to the child's individual level.

This paper is a product of the Education Unit, South Asia Region. It is part of a larger effort by the World Bank to provide open access to its research and make a contribution to development policy discussions around the world. Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at qnguyen4@worldbank.org.

The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the International Bank for Reconstruction and Development/World Bank and its affiliated organizations, or those of the Executive Directors of the World Bank or the governments they represent.

Private Non-State Sector Engagement in the Provision of Educational Services at the Primary and Secondary Levels in South Asia: An Analytical Review of Its Role in School Enrollment and Student Achievement

Mahesh Dahal, World Bank
Quynh Nguyen, World Bank*

Key words: Private sector, private school, South Asia, learning, achievement

JEL: I210

Sector Board: Education

We thank Tara Beteille, Sangeeta Goyal, Toby Linden, Karthik Muralidharan, Dhushyanth Raju and Michelle Riboud for helpful comments. The findings, interpretations and conclusions expressed herein are our own and do not necessarily represent the views of the World Bank, its Board of Directors, or any of its member countries. All remaining errors are our own.

* Dahal: mdahal@worldbank.org. Nguyen: qnguyen4@worldbank.org.

I. Introduction

1. The role of the private sector has become increasingly prominent in the educational landscape of South Asia in recent years, taking the spotlight in academic research as well as the popular media. The private sector is defined here in its broadest sense, including communities, non-governmental organizations (NGOs), faith-based organizations, trade unions, private companies, small-scale informal and individuals (Lewis and Patrinos, 2011). In other words, the private sector here refers to non-state entities. Private schools have accounted for a considerably increasing share of student enrollment at all grade levels. Various types of public-private partnership have emerged. Much attention has also been drawn to the widespread phenomenon of outside-classroom tutoring. A central question in today's discussion is with regards to the absolute and relative quality of education associated with engagement by the private sector.

2. This paper contributes to the literature and discussion by putting together, for the first time, a regional picture of the role of the private sector in educational service delivery at the primary and secondary levels across the countries in South Asia, and examining the learning quality associated with this engagement, as measured by student test scores. The paper involves an extensive literature review, basic data analyses (using household surveys, learning assessment surveys, and school censuses), and policy implications proposed by the authors. It does not entail any original impact evaluation. Due to varying degrees of availability of data and information as well as varying histories and government policies across the countries, Bangladesh, India, Nepal and Pakistan get extensive analysis, while analysis for the other countries is limited. Similarly, some types of private sector engagement can be discussed in more detail than some other types. Moreover, the paper focuses on country-level analysis, and abstracts from analysis of variation across within-country administrative units, such as states, provinces and districts, which could be substantial (see, for example, Nguyen and Raju, 2013).

3. Private sector engagement in the provision of educational services at the primary and secondary levels in South Asia takes various types. Schools fully financed and managed by the private sector (unaided schools) account for virtually all of private sector engagement in primary and secondary education in Nepal and Pakistan. Government financed and privately managed schools (aided schools) are highly prevalent in Bangladesh and have considerable presence in India. According to the latest household survey data available for seven of the eight regional countries, almost one-third of school children are enrolled in schools identified as private schools (aided or unaided schools), with a high concentration in Bangladesh, India, Nepal and Pakistan. Available school census data for these four countries indicate that the expansion of privately managed schools is fairly recent, starting around the mid-1970s to early 1980s. Predominant among the urban and high-income, it has increasingly reached rural areas and poorer households. Importantly, in India, the parliament has recently passed the Right to Education Act that includes a provision mandating private schools to reserve up to 25% of their seats for students from disadvantaged backgrounds, with a reimbursement of fees by the government. With this provision, India may soon lead the world in the number of children attending private schools with government funding, and also in the inclusiveness of private schooling. Besides engagement in aided and unaided schools, the private sector may also provide school-level services without assuming management responsibilities, or set up schools of a specific model, finance and run them while gradually transferring financing and management responsibilities to the government. Outside-classroom paid tutoring is reported to be common in most countries, whether private schooling is minimal or significant (except in Bhutan where tutoring is banned by law).

4. Disaggregated test score data available for India, Pakistan, and Nepal show that on average, privately managed schools perform at least as well as government managed schools in terms of student test scores, at significantly lower costs to society. At the same time, it is important to acknowledge the average poor performance in private schools. Moreover, there is significant variability in student achievement among schools of both types, with a large overlap between test score distributions of two types of schools, indicating the existence of many bad private schools as well as good government schools. We point out several advantageous characteristics of private schools; in particular, we find substantial, albeit indirect, support for teacher behavior and accountability as a driver of private schools' effectiveness. Nevertheless, these advantages would not suffice to induce student achievement over the long run, if, for example, there is little improvement in the professional knowledge and skills of available teachers, particularly in economically disadvantaged areas. It is also important to realize that in an education market, the quality of government schools serves as the benchmark against which private schools differentiate themselves. The lower the quality of government schools, the lower the quality of private schools, unless the market is competitive among private schools, which is unlikely in many rural areas. Higher wages of government teachers do not seem associated with higher student achievement outcomes; hence a focus on student achievement in policy dialogue and policymaking, coupled with strengthened governance and accountability systems, would be important. This requires a system of reliable and regular measurement of student achievement to begin with. On the other hand, many private schools may imitate elite ones in visible aspects of infrastructure, facilities, methodologies, and curriculum.

5. Many unaided private schools, whose students perform, on average, at least as well as government school students, are unregistered and free of government regulations. This casts doubt on the effectiveness of regulations on school registration, fees and teacher credentials that the government may set for private schools, especially given the weak institutional capacity. On the other hand, there is potential for contractual partnerships between the government and private sector to leverage both "equity" and "efficiency," and the design of an accountability mechanism for such partnerships would be crucial. Moreover, regional and international evidence suggests that understanding and customizing teaching to the child's individual level and way of learning is important to improving academic achievement – there is potential to cater to this need through a student-focused approach in classroom teaching and classroom and school management, or through well-designed outside-classroom tutoring services, among other potential reforms.

6. In the remainder of the paper, we first discuss the types and general extent of private sector engagement in education in South Asia. We then discuss in more detail the prevalence, socio-economic patterns, and over-time evolution of private schooling in aided and unaided schools, as well as of outside-classroom tutoring, in countries for which data and information allow such analyses. We next present evidence on student achievement associated with the different types of private sector engagement, discussing underlying factors and mechanisms, with references to the socio-economic patterns identified in the previous section. The last section draws conclusions and policy implications.

II. Types, extent, socio-economic patterns, and over-time evolution of private sector engagement

a. Types and general extent of private sector engagement

Table 1. Types of private sector engagement in the provision of educational services at the primary and secondary levels in South Asia

Type of Financing and Management	AFG	BGD	BTN	IND	LKA	MLD	NPL	PAK
(1) Privately funded and privately managed (unaided) schools	x	xx	x	xx		x	xx	xx
(2) Government funded/supported, privately managed (aided) schools	x	xx		xx			see footnote ¹	x
(3) Government funded and managed schools, with school-level services from the private sector				xx				
(4) Privately funded and privately managed schools for planned transition into the government system later	x							
(5) Outside-classroom tutoring	N/A	xx		xx	xx	N/A	xx	xx

Notes: 1. “xx” indicates considerable prevalence, i.e. the type is listed in household or school census questionnaires, with at least a 10% share of total enrollment in the country, or is reported for roughly 10% or more of schools, or is reported for roughly 10% of children, according to government or institutional documents or peer-reviewed research papers. “x” indicates modest prevalence, i.e. the type is listed in household or school census questionnaires but accounts for less than 10% of total enrollment, or is reported for at least 100 schools or 3% of schools but less than 10% of schools, or is reported for at least 10,000 children or 3% of children, according to government or institutional documents or peer-reviewed research papers. The blanks denote that the type is not prevalent enough to qualify for an x or xx rating. “N/A” denotes that no information can be obtained from any source.

2. AFG: Afghanistan; BGD: Bangladesh; BTN: Bhutan; IND: India; LKA: Sri Lanka; MLD: Maldives; NPL: Nepal; PAK: Pakistan.

3. Religious schools are managed by the private sector but not considered here. Their reported share in household survey data is about 0.1% in Afghanistan, 1.5% in Nepal, 2% in Pakistan, and 3%–7% in Bangladesh in the three age groups. Their curriculum often differs greatly from the secular curriculum, making it difficult to assess religious education along with non-religious education.

7. According to the latest household survey data^{2,3}, almost one-third of school children in

¹ At most government schools in Nepal, the local community has been handed some management powers since 2001, due to an amendment to the Education Act. However, we consider them government schools as teacher management and recruitment, a key management activity, is still practically largely controlled by the government.

² Afghanistan: 2007/08 National Risk and Vulnerability Assessment Survey
 Bangladesh: 2010 Household Income and Expenditure Survey
 Bhutan: 2007 Living Standards Survey
 India: 2009/10 (66th round) National Sample Survey (Schedule 10: Employment and Unemployment)
 Nepal: 2009/10 Living Standards Survey
 Pakistan: 2010/11 Social and Living Standards Measurement Survey

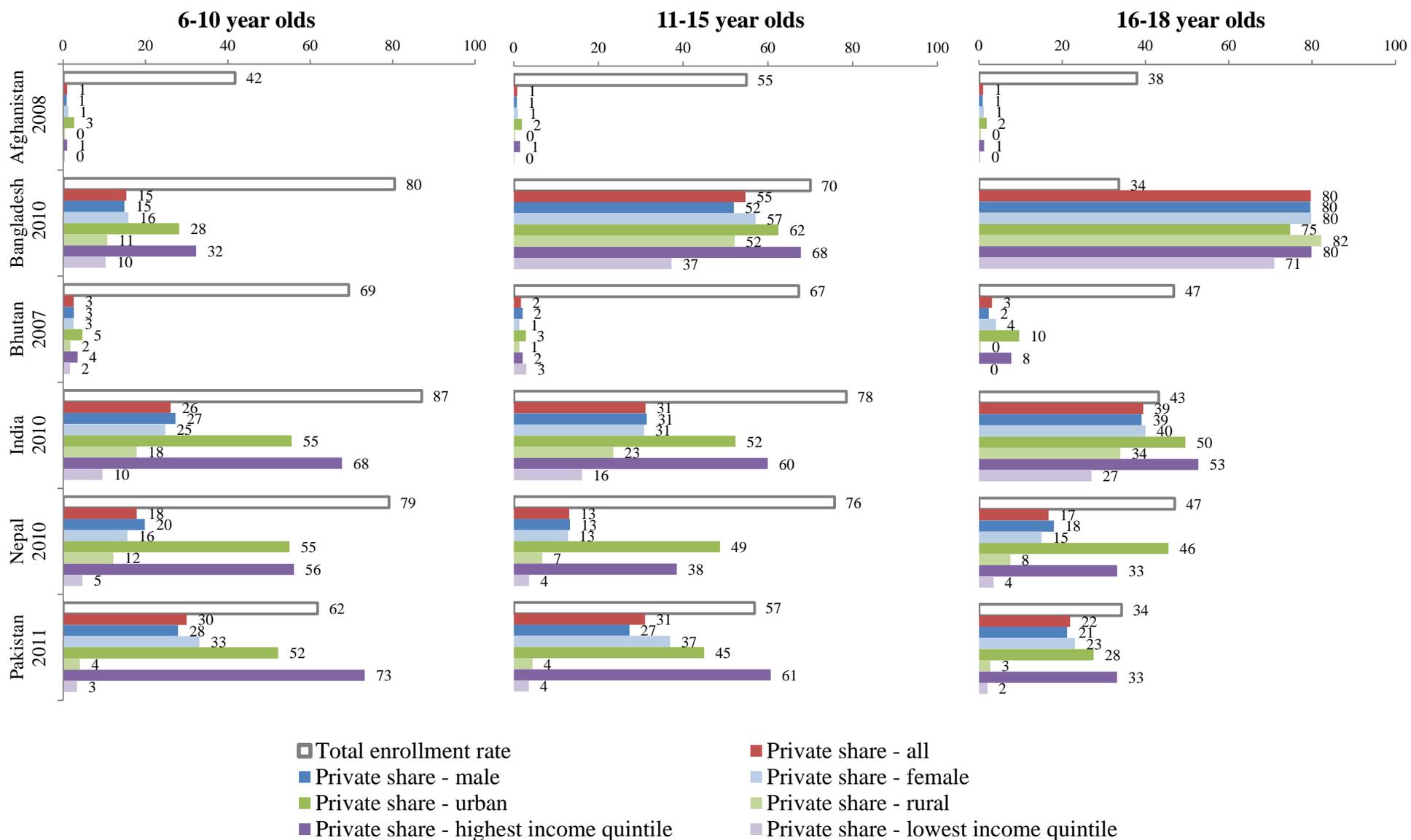
³ As this paper considers both household-level and school-level data, it is worth noting using household survey data tends to show better the true size of private schooling than school-level data, due to the prevalence of unrecognized schools. For example, in India, Kingdon (2007) examines statistics from multiple household- and school-level surveys and estimates the true number of private schools to be up to three times that in official school-level statistics. This is corroborated by Muralidharan and Kremer (2008)’s finding through a large-scale independent survey that 51% of private primary schools in rural areas in 20 Indian states are unrecognized. On the one hand, teachers in government and government-financed schools may want to over-report enrollment to receive more funding. On the other hand, households are more likely to report enrollment of children in unrecognized schools

South Asia are enrolled in schools identified as private schools: 27% for 6–10 year-olds, 31% for 11–15 year-olds, and 39% for 16–18 year-olds. Schools identified as private schools in household surveys may involve different types of private sector engagement, mostly, but not exclusively, in categories (1) and (2) in Table 1. Type (1) schools are managed by the private sector and financed by the private sector itself (unaided), while type (2) schools are managed by the private sector but fully or partly funded by the government (aided). The distinction between the aided and unaided types is made only in the Bangladesh and India household surveys, where there are considerable shares of both types. In Pakistan, there are a considerable number of aided schools, although these schools are relatively new. For example, under the Foundation Assisted Schools (FAS) initiative started in 2005 in Punjab province, 1,779 low-cost private schools in 29 districts were receiving support from the government as of 2010, conditional on satisfactory student achievement (Barrera-Osorio and Raju, 2010), and under the Promoting Low-Cost Private Schooling in Rural Sindh (PPRS) initiative started in 2009, 481 schools had been established and run by entrepreneurs as of 2011, with support from the government subject to operational and management requirements (Barrera-Osorio et al., 2011). Household survey information on private schooling is not available for the Maldives and Sri Lanka. Private schooling has been banned in Sri Lanka since 1961. As for the Maldives, school statistics of 2012 show that more than 3% of primary and secondary students in the country go to schools managed by private sector providers.

8. Besides engagement in aided and unaided schools, the private sector may provide school-level services to the government without assuming management responsibilities. This is type (3) in Table 1, and, in our definition, it does not include numerous contractual engagements between the government and private providers that do not involve school-level services. In India, NGOs such as Pratham and the Akshara Foundation, as well as universities and IT firms engage in a large number of classroom support activities with government schools. We do not find substantive evidence of this type of partnership in the other countries. We find type (4) in Afghanistan, where, under Partnership for Advancing Community-Based Education (PACE-A, funded by USAID) in 2006-11, a consortium of NGOs built and managed village-based schools, providing primary education to about 100,000 children in rural underserved localities in 19 provinces, with a goal of transferring ownership, including funding and management, to the government (see, for example, Burde and Linden, forthcoming). Outside-classroom tutoring - type (5) - is reported in household surveys for Bangladesh and Nepal, where it is prevalent, and interestingly reported also for Bhutan, where it is almost non-existent (less than 1% among Bhutanese students) and prohibited by law. Other sources indicate that tutoring is common in India, Pakistan and Sri Lanka as well (see, for example, Aslam and Atherton, 2012, and Jayachandran, 2012), although the information is not reported in household surveys for these countries. We are not aware of any dataset or written document on tutoring in the Maldives; however, informal interviews conducted by World Bank staff indicate that at least 80% of primary and secondary school students take private tutoring. No substantive information is available on the prevalence of tutoring in Afghanistan.

whereas school-level surveys tend to collect data only from identifiable schools either as registered in the government's database or as spotted by survey administrators. Some schools can be of such small sizes, such as one-teacher schools that are quite common in rural areas, and/or located in such remote or crowded areas with small or no sign boards that survey administrators are likely to miss them. Therefore household surveys may be particularly helpful in depicting private schooling in remote and rural areas.

Figure 1. Enrollment in private schools as a share of total enrollment, overall and by socio-economic groups



b. Prevalence and socio-economic patterns of private schooling in Afghanistan, Bangladesh, Bhutan, India, Nepal and Pakistan, and over-time evolution of private schooling in Bangladesh, Bhutan, India, Nepal and Pakistan, as reported in household surveys and school censuses

9. Private schooling (in aided and unaided schools) appears concentrated in four countries, Bangladesh, India, Nepal, and Pakistan, as demonstrated in Figure 1, using household survey data. Private school enrollment accounts from 15% to 80% of total enrollment across the age groups in these countries. Private sector engagement in education is incipient in Afghanistan, and is traditionally minimal in Bhutan.

10. The shares of aided and unaided private schools vary significantly across the four high-concentration countries. Aided schools' presence is extensive in Bangladesh, considerable in India, and minimal in Nepal and Pakistan. Aided schools in India take origin from a policy in the colonial past, with teacher salary subsidies proportionate to enrollment⁴. In 2009/10, they account for 30% of private school enrollment among 6-10 year-olds, 41% among 11-15 year-olds, and 55% among 16-18 year-olds. The colonial tradition was interrupted in Pakistan in 1972 and Bangladesh in 1973, when private schools underwent mandated nationalization. The 1973 nationalization mandate in Bangladesh applied only one time to existing primary schools; after that, private schools could be established and government financing resumed. As of the latest household survey in 2010, aided schools account for 31% of private school enrollment among 6-10 year-olds, 86% among 11-15 year-olds, and 95% among 16-18 year-olds. The remarkably high shares of aided schools in the older age groups may be attributed to a salary subvention system that was introduced by the Bangladeshi government in 1981 to support private secondary institutions (Rahman et al., 2010). However, in Pakistan, since the reversal of nationalization in 1979, the colonial tradition has not resumed. The distinction between "aided" and "unaided" is not made in the Pakistan and Nepal household surveys. In fact, most government schools in Nepal may be considered as partially aided as the local community has been handed some management powers since 2001, due to an amendment to the Education Act. However, we consider them in the government category in this paper given that teacher management and recruitment, a key management activity, is still practically controlled by the government⁵.

11. Although overall school enrollment is biased towards boys in all the countries presented in Figure 1, except in Bangladesh where the reverse applies (perhaps largely due to reduced schooling costs through the Female Secondary School Assistance Project (FSSAP) that started in 1993), this pattern does not hold in terms of the private school share of enrollment. Gender gaps in the private schooling share are small and do not follow a consistent pattern across the countries. The only cases where the gender gap is 3 percentage points or more are the 11-15 age group in Bangladesh with a 5 percentage-point female advantage, the 6-10 and 16-18 age groups in Nepal with male advantages of 4 and 3 percentage points, respectively, and the 6-10 and 11-15

⁴ A president of the Board of Control of the East Asia Company in 1854 recommended that (pre-partition) India provide grants-in-aid in support of private schools.

⁵ It may be useful to note that in the case of Nepal, government schools have become partially managed by the community, whereas in the case of Bangladesh, schools established by the private sector receive government funding. As a result, the partnership in Nepal maintains a government identity, whereas the partnership in Bangladesh maintains a private identity.

age groups in Pakistan with female advantages of 5 and 10 percentage points, respectively. It is interesting to note that Muslim countries such as Bangladesh and Pakistan have female advantage in private enrollment. Perhaps in these countries there is a relatively strong positive correlation between a less patriarchal culture (i.e. less of a bias against females) in the household and the likelihood of sending children to private school.

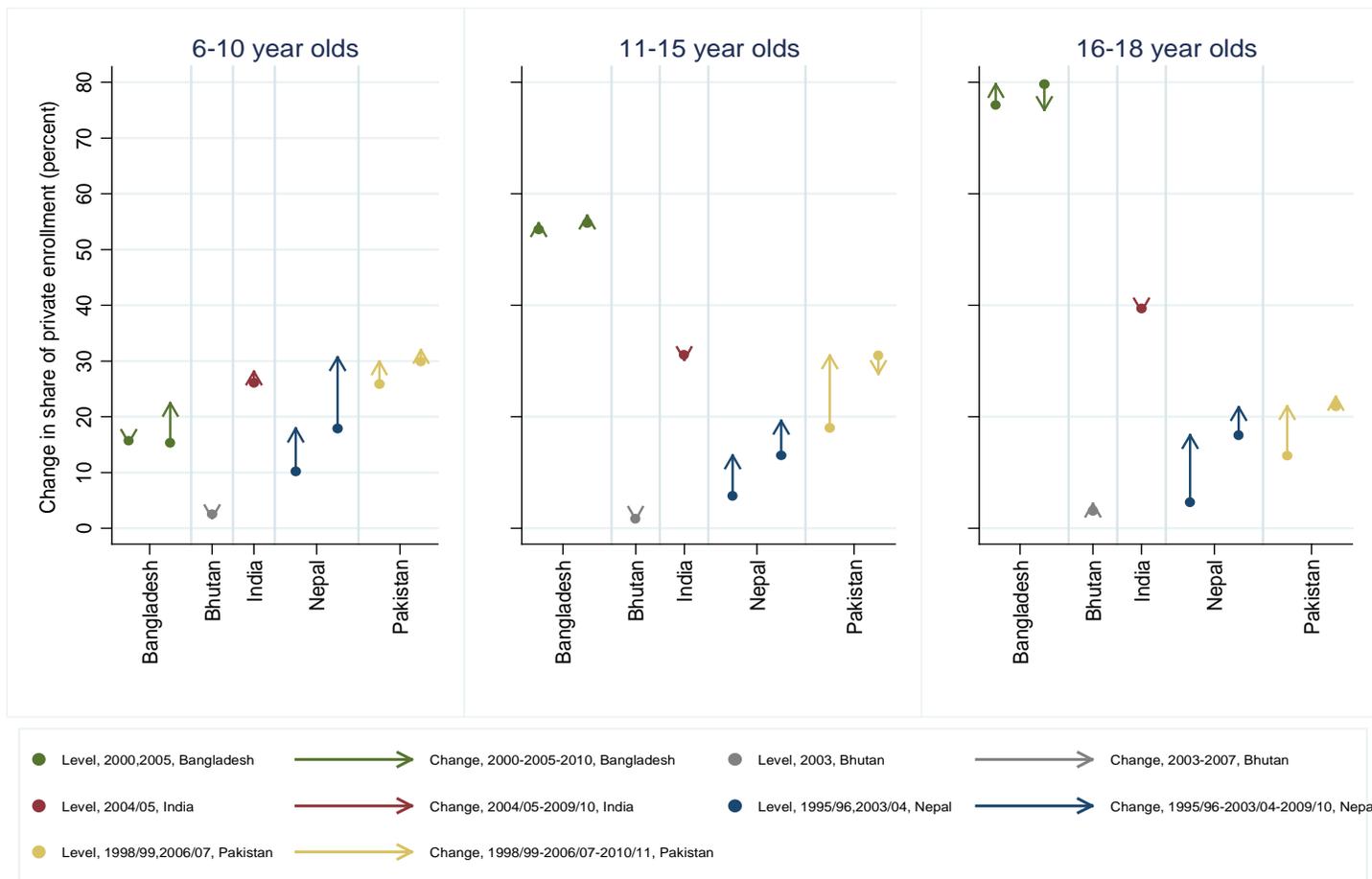
12. Private school enrollment is concentrated in urban areas and among the wealthiest households. Figure 1 shows stark contrasts between rural and urban areas, and between the lowest and highest income quintiles in India, Nepal and Pakistan, where the majority of private schooling is unsubsidized by the government, and therefore subject more directly to household income. Even in rural areas, such as rural Punjab, Pakistan, Andrabi et al. (2007) find disproportionately more private schools in larger and richer villages, and in richer and more literate settlements within villages. Similarly, Cameron (2011) reports that in Dhaka, Bangladesh, even among urban slum households, children of wealthier and better-educated parents are more likely to go to a private primary school. These patterns are consistent with the unsubsidized nature of the majority of private schooling, which calls for the ability to afford the costs, as well as greater availability of supply-side factors such as teachers and infrastructure in more affluent and urban areas. An exception is the rural advantage in the 16-18 age group in Bangladesh, perhaps to an important extent due to the FSSAP initiative that subsidizes secondary schooling for girls in rural areas, and most secondary schools are private aided.

13. Figure 2 shows a snapshot of how private schooling has grown in recent years, according to household survey data. Over a recent period of approximately five years, private school enrollment has increased at a faster rate than total enrollment for all the three age groups in Nepal, and for the 6-10 age group in Bangladesh, while decreasing slightly for the 11-15 age group in Pakistan and the 16-18 age group in Bangladesh and barely changing for the other country- and age-groups. (There is only one year of household survey data for Afghanistan.) Older household survey data reveal that, over a prior period of approximately eight years, the increasing trend in the share of private schooling in Nepal was already present. An increasing trend can also be seen for all the three age groups in Pakistan, and for the 16-18 age group in Bangladesh over this earlier period. Overall, what stands out in the picture is stronger growth in private school enrollment than in total enrollment in some parts of the region in the last decade or so.

14. To provide further evidence on over-time trends, information on the school establishment date available in school census data for Bangladesh (2006), India (2009/10), Nepal (2009/10) and Pakistan (2005) allows a look at a longer history. Figure 3 shows that most private (aided and unaided) schools are significantly younger than government schools. There could be two reasons for this: (1) private schools have been founded more recently, and (2) private schools have shorter lifetimes. The large age difference between the two school types, combined with the increasing trend in the share of private school enrollment seen in Figure 2, indicates that the expansion of private schooling is a recent phenomenon. The stark increases in private school foundation in Bangladesh in the 1970s and in Pakistan in the 1980s coincide with the reversals of a period of school nationalization in these countries in 1973 and 1979, respectively. The differential in foundation dates is considerably more gradual for India, perhaps because in India privately managed schools date back to the colonial times, and there has been no interrupting school nationalization period as in Bangladesh and Pakistan. Moreover, except in Bangladesh, private schools in rural areas tend to be younger than in urban areas, suggesting stronger recent

growth of private schooling in rural areas.

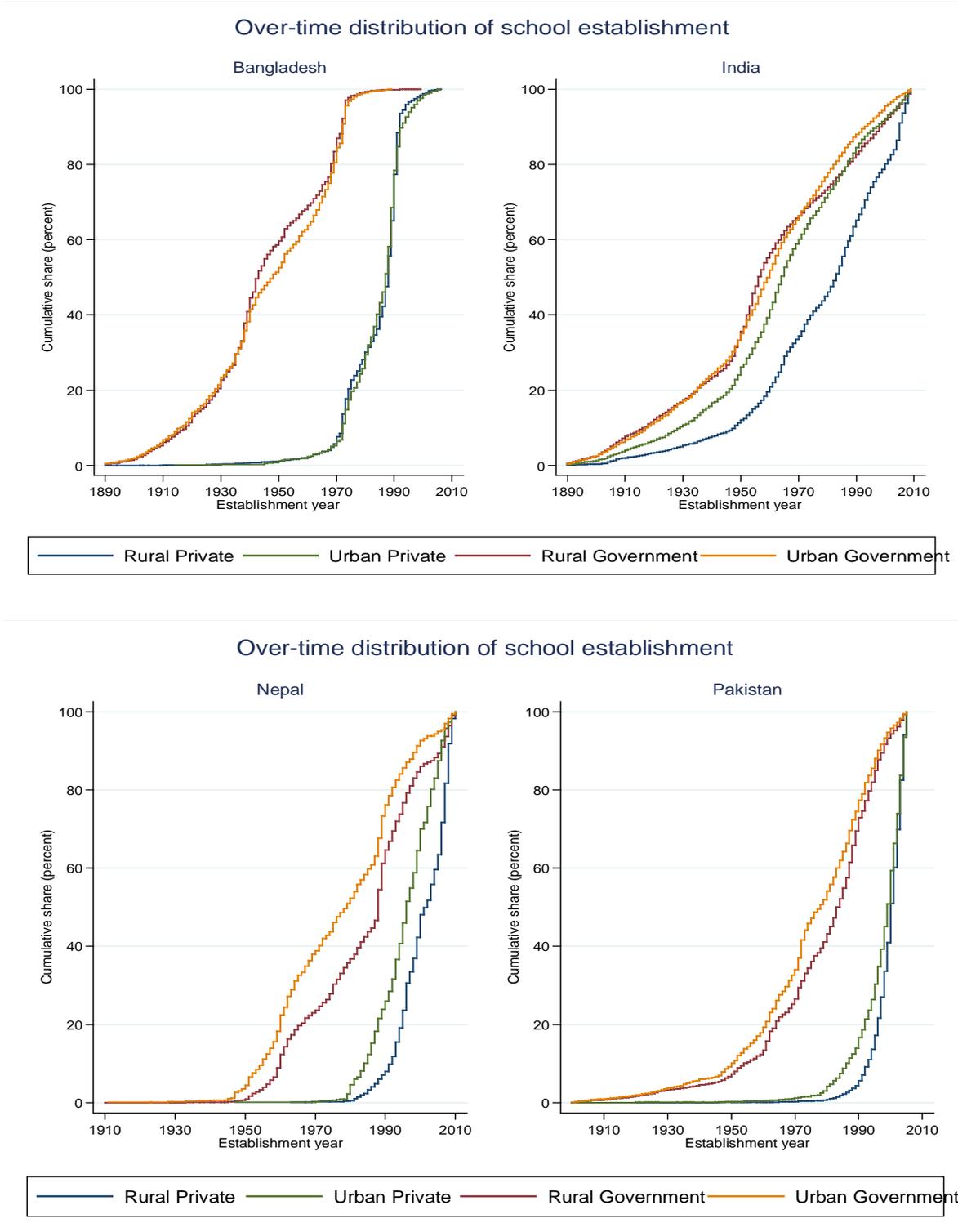
Figure 2. Change in enrollment in private schools as a share of total enrollment



Note: Data available for two periods for Bangladesh, Nepal and Pakistan only

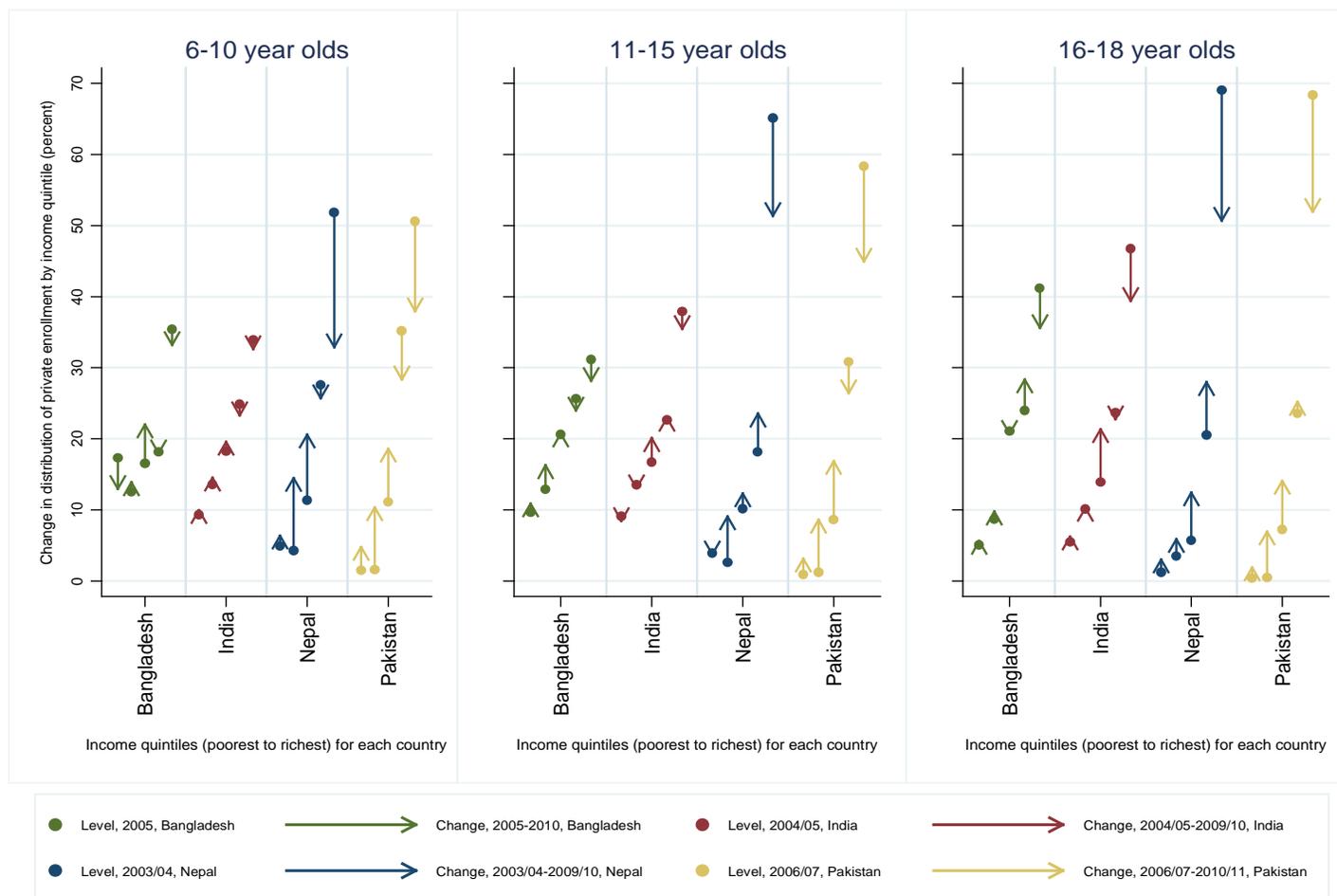
Source: Authors, based on household survey data.

Figure 3. Establishment of private schools over time



Source: Authors, based on data from the Primary School Census 2006 for Bangladesh, District Information System for Education 2009/10 for India (not including Uttar Pradesh and Madhya Pradesh), Flash Data 2009/10 for Nepal, and Primary and Secondary School Census 2005 for Pakistan.

Figure 4. Change in distribution of private school enrollment across income quintiles



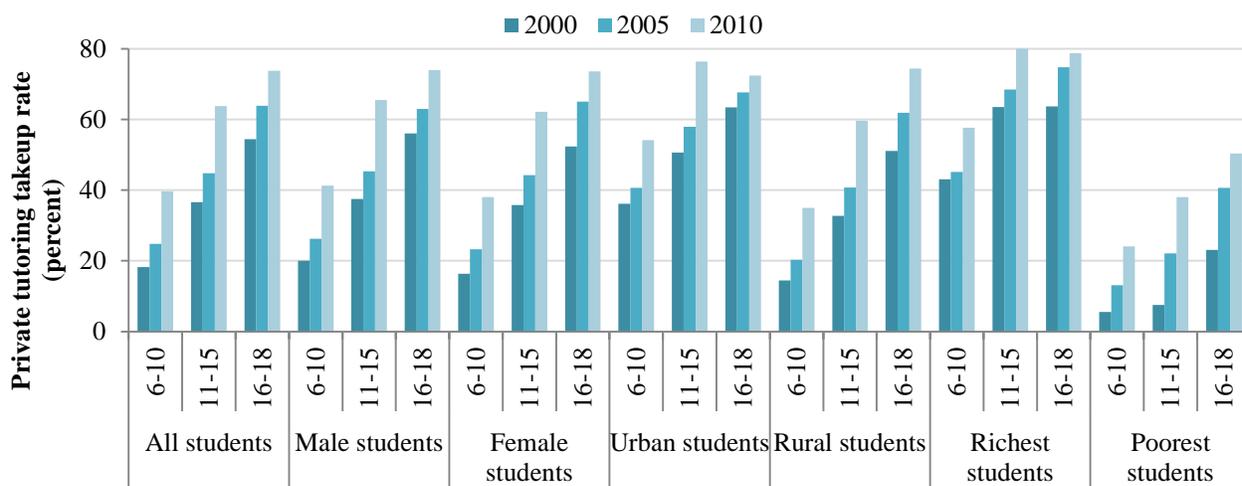
Source: Authors, based on household survey data.

Notes: For each country, the five arrow origin points add up to 100% of private school enrollment in the earlier period, and the five arrow head points add up to 100% of private sector enrollment in the later period.

15. Consistent with the stronger recent growth of private schooling in rural areas indicated by school census data, Figure 4 shows an equalizing trend in the growth of private schooling in a recent period of approximately five years in each country, based on household survey data. The lower income quintiles account for increasing shares of private schooling while the richest quintile sees a decreasing share, although the lowest quintile still seems at the margin of the phenomenon. (Data is available for Bhutan but the private schooling rate is too low for decompositional analysis). Relatively poorer households have been able and willing to afford more private schooling perhaps because their absolute levels of income and aspirations for their children have increased. Improvements in overall economic and social conditions could also improve the supply of teachers and infrastructures, as well as the ability and drive to organize these supply-side factors into functioning schools. Recent education reform initiatives in the region that have targeted educationally disadvantaged populations may have also contributed to this trend. The FSSAP in Bangladesh and the FAS and PPRS initiatives in Pakistan mentioned above are some examples of such initiatives. Interestingly, Nepal and Pakistan, the two countries with the largest shares of unaided private schools, saw the starkest equalization in the demonstrated period, suggesting that increased affordability and desperation for quality in the face of poor government services may be important underlying factors.

c. Prevalence and socio-economic patterns of outside-classroom tutoring in Bangladesh, India, Nepal, Pakistan and Sri Lanka, as reported in household and school surveys, and over-time evolution of outside-classroom tutoring in Bangladesh, as reported in household surveys

Figure 5. Growth in outside-classroom tutoring in Bangladesh



Source: Authors, based on data from the Household and Income Expenditure Survey (HIES).

16. Outside-classroom tutoring is a common phenomenon in most countries in the region, as reported in available household survey data and the existing literature. Information on tutoring is reported in household surveys for Bangladesh and Nepal. (It is also reported for Bhutan but not discussed here as tutoring in Bhutan is prohibited by law and the rate is less than 1%.) Figure 5 shows that, in Bangladesh, over a period of 10 years, the tutoring take-up rate among students

enrolled in all school types increased by 117% (from 18% to 40%) for the 6–10 age group, 74% (from 37% to 64%) for the 11-15 age group, and 36% (from 54% to 74%) for the 16-18 age group. This upward trend has happened in all sections of the population, with higher rates and greater magnitudes of increase among the rural and poor than the urban and wealthy, respectively. The equalizing trend coincides with that in private schooling discussed in the previous section, except that the poorest seem less at the margin here, perhaps because tutoring is less costly than private schooling and because the poorest households that choose to send their children to school are also willing to invest in other ways. This is also consistent with the finding by Cameron (2011) that even in slum areas in Dhaka, Bangladesh, almost half of school-going children take tutoring. Similarly, in Table 2, Nepal household survey data shows that students from urban and wealthier households take more tutoring, but the rates are relatively considerable for students from rural and poor households as well. (In both Bangladesh and Nepal, tutoring is virtually non-existent (0.3% or less) among out-of-school children.) Similar patterns are found for rural areas in India and Pakistan by Aslam and Atherton (2012) based on data from the 2007/08 SchoolTells survey for India and the 2010 Annual Status of Education Report (ASER) for Pakistan, and also for Sri Lanka by Glewwe and Jayachandran (2006), using data from the 2003 National Education Survey. Aslam and Atherton (2012) find that 22.6% of children of ages 3-16 in India take tutoring, and the rate is 15.7% in Pakistan. As for Sri Lanka, Glewwe and Jayachandran (2006) report that 78% of fifth-graders receive tutoring.

Table 2. Socio-economic patterns of outside-classroom tutoring among students in Bangladesh and Nepal

Tutoring take-up rate of students		6-10 year-olds			11-15 year-olds			16-18 year-olds		
		All schools	Private schools	Govt schools	All schools	Private schools	Govt schools	All schools	Private schools	Govt schools
Bangladesh 2010	All	39.6	52.4	49.6	63.8	75.1	60.0	73.8	75.5	72.5
	Richest	57.6	63.1	63.8	82.4	85.7	83.6	78.8	79.3	81.6
	Poorest	24.1	22.5	34.0	38.1	53.1	39.1	50.4	57.2	43.7
	Urban	54.1	57.0	61.4	76.4	83.6	73.3	72.4	74.7	69.7
	Rural	35.0	48.3	46.0	59.6	71.8	55.6	74.4	75.9	75.5
	Male	41.3	53.4	52.6	65.6	78.1	62.6	74.0	75.9	70.8
	Female	38.0	51.2	46.7	62.2	72.3	57.6	73.6	75.1	74.7
Nepal 2010	All	16.1	30.5	10.1	26.1	38.9	23.1	43.2	44.4	43.1
	Richest	31.6	36.7	18.5	44.5	46.1	42.4	51.6	44.7	57.6
	Poorest	5.3	13.8	4.5	9.8	12.3	9.4	23.4	11.6	24.1
	Urban	24.5	29.4	15.2	33.4	38.7	27.3	42.7	40.8	46.3
	Rural	14.6	31.0	9.7	24.5	39.0	22.6	43.3	48.2	42.6
	Male	19.6	32.6	12.3	27.9	40.3	24.3	43.0	45.5	42.2
	Female	12.9	27.3	8.4	24.2	36.7	21.9	43.4	42.9	43.9

Source: Authors, based on latest household survey data.

Notes: “All schools” refers to schools of all types - private, government and others.

17. Students in both government and private schools get tutored, with generally higher rates for older students (most probably due to high-stakes examinations), for boys, and for private school students. Aslam and Atherton (2012) find similar patterns for India and Pakistan. The gender divide here differs from that for the private share of total enrollment that we observed above. Given that boys get more tutoring even among those enrolled in private school, it is unclear this is due to a bias that favors boys, or due to weaker learning among boys, or both. Similarly, it is unclear if the high prevalence of tutoring among private school students is

because the income and aspirations that drive households to choose private schooling also drive them to get tutoring for their children, or because private schooling, though often preferred to government schools, also suffers from important deficiencies, or both.

III. Private sector engagement and student achievement in South Asia

18. In this section, we present evidence of student achievement, as measured in terms of test scores, associated with the different types of private sector engagement. The order of the subsections follows roughly the order of the types listed in Table 1, with some adjustments to facilitate discussion of underlying factors and policy implications. The subsection titles mention the countries for which evidence is available. For each type of private sector engagement, there may be countries that are discussed in the previous section with regards to the type's extent, socio-economic patterns and over-time evolution, but not discussed in this section due to lack of evidence with regards to student achievement. For a richer and more complete discussion, we refer to examples and evidence from outside of South Asia where possible and relevant. Muralidharan and Sundararaman (2013) point out the importance of the choice of subjects for measuring and comparing test scores due to potentially higher-than-average performance in high-stakes subjects, or due to different schools focusing on different subjects. We are not able to address this issue in our paper, and acknowledge the limitation.

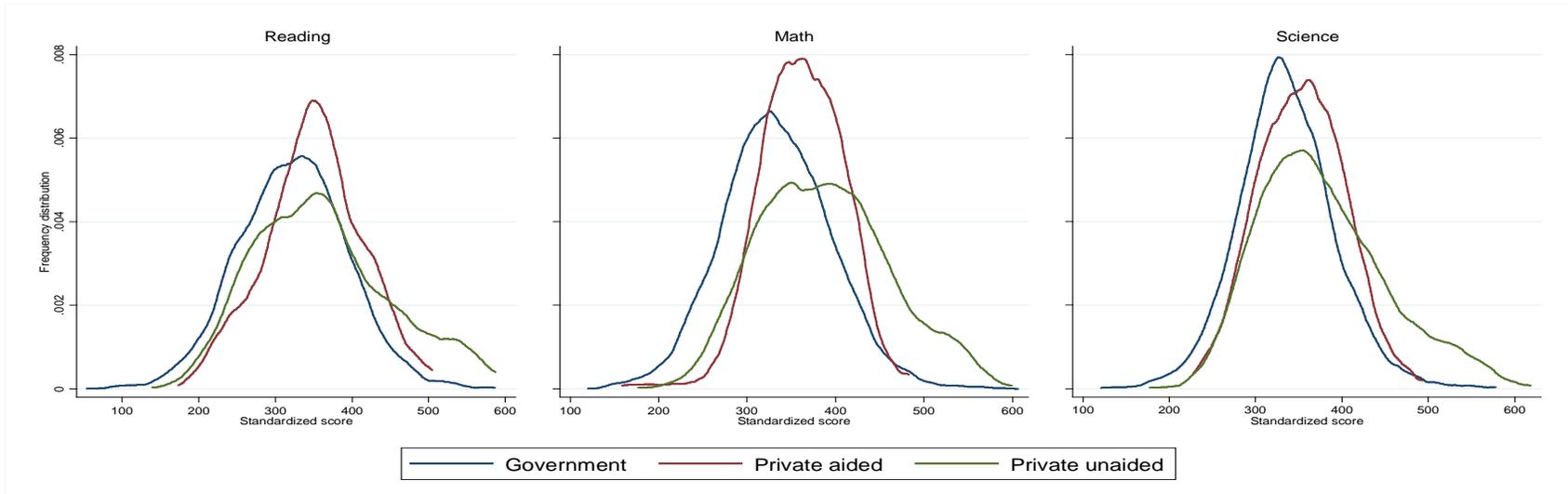
III.a. Unaided private schools in India, Nepal and Pakistan (Type (1) in Table 1)

19. A number of studies, mostly on India (see, for example, Kingdon, 2007; Muralidharan and Kremer, 2007; Tooley and Dixon, 2007; Goyal, 2009; Desai et al., 2009; Tooley, 2009; French and Kingdon, 2010; Goyal and Pandey, 2011) and some on Pakistan and Nepal (for example, Andrabi et. al., 2007; Aslam, 2009; Thapa, 2011), find that unaided schools perform poorly but on average at least as well as government schools. Figure 6 presents the distributions of several test score datasets for the three countries. For India, the first dataset is criterion-referenced scores from the 2009 internationally standardized test⁶ PISA administered to a sample of 15-year-olds at their schools in the states of Himachal Pradesh and Tamil Nadu. The second dataset is criterion-referenced scores from a short standardized test administered to 8–11 year-olds from a nationally representative sample of households in 2004/05. For Nepal, the scores are of a nationally representative sample of students who appeared for the 2004 nationwide SLC test at the end of grade 10. And the dataset for Pakistan is percentages of correct answers on standardized tests conducted at the school of Grade 4 students in rural areas in three Punjab districts in 2006 (Andrabi et al., 2007). The “aided” and “unaided” categories are defined for India only; the vast majority of private schools in Nepal and Pakistan are unaided, as mentioned in the previous section. Across the graphs, the score distribution is more to the right for students in unaided schools than for students in government schools, although both school types have academically strong and weak students.

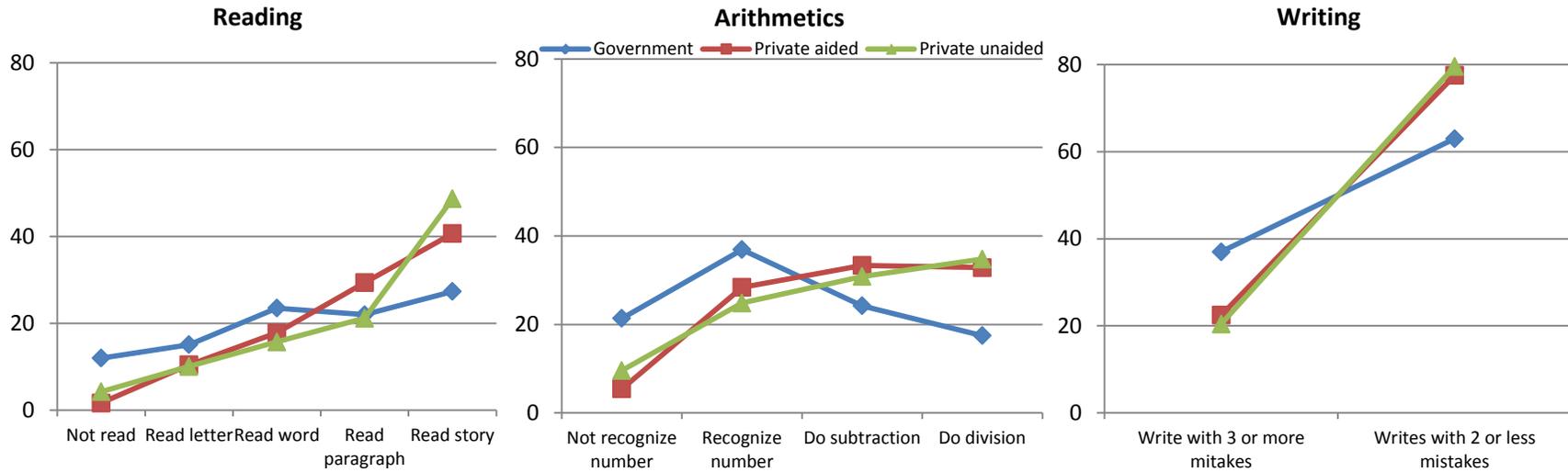
⁶ For standardized tests, the questions, conditions for administering, scoring procedures and interpretations are consistent with a predetermined standard framework. There are two types of standardized test score interpretations: the norm-referenced interpretation compares a student's test score to the scores of other students who have taken the test while the criterion-referenced interpretation compares a student's test score to a pre-defined set of criteria.

Figure 6. Distribution of test scores of students in government and private schools

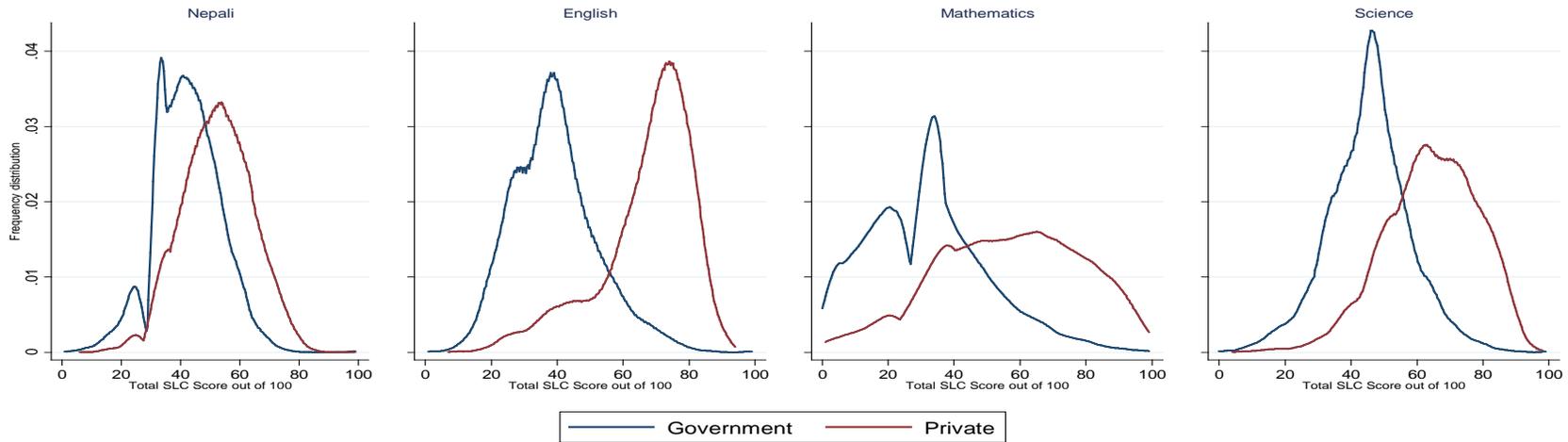
a) 15-year-olds, 2009, Himachal Pradesh and Tamil Nadu, India: PISA Test



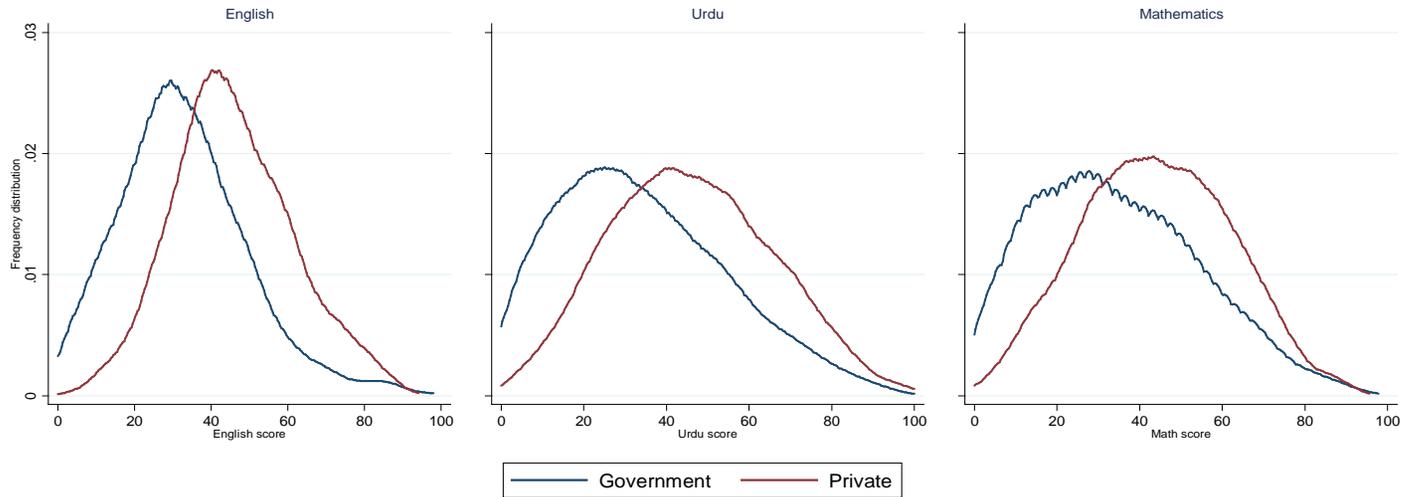
b) 8–11 year-olds, 2004–05, India: India Human Development Survey



c) Grade 10 Students, 2004, Nepal: School Leaving Certificate (SLC) examination



d) Grade 4 Students, 2006, Rural Punjab, Pakistan: Learning and Educational Achievement in Pakistan Schools (LEAPS) survey



Source: Authors, based on data from student assessments.

20. It is important to note that even among unaided school students, in India, only about 30% of 8–11 year-olds can perform a division, and around 50% can read a story. At the end of grade 10, Nepalese private school students score more than 50% on some SLC tests and more than 60% on some other SLC tests on average, with a considerable share scoring lower than 50%; weaker students are left out of this picture as they did not even make it to grade 10. In rural Punjab, Pakistan, on average Grade 4 students in private schools answer only about 45% of the test questions correctly. These patterns remain when we average test scores at the school level, indicating that they are not driven by a correlation between student achievement and school size.

Table 3. Gender and locational patterns of test scores of students in government and private schools

India, 8–11 year-olds: India HD Survey, 2004/05

	Math		Writing		Reading	
	Private	Diff (Pvt-Govt)	Private	Diff (Pvt-Govt)	Private	Diff (Pvt-Govt)
All	68.8 (0.82)	24.5*** (0.99)	81.5 (0.68)	16.5*** (0.87)	72.5 (0.78)	20.1*** (0.96)
Male	68.8 (1.07)	22.2*** (1.33)	82.0 (0.89)	16.2*** (1.16)	71.4 (1.04)	17.6*** (1.30)
Female	68.7 (1.26)	26.9*** (1.49)	80.7 (1.07)	16.5*** (1.32)	74.1 (1.18)	23.1*** (1.43)
Urban	72.9 (1.07)	17.8*** (1.67)	83.7 (0.89)	10.6*** (1.45)	76.3 (1.02)	14.0*** (1.61)
Rural	64.1 (1.23)	22.3*** (1.38)	79.0 (1.05)	15.9*** (1.21)	68.3 (1.19)	18.2*** (1.34)

Nepal, Grade 10: SLC Exam, 2004

	Math		Nepali		English		Science	
	Private	Diff (Pvt-Govt)						
All	56.5 (0.35)	24.7*** (0.38)	52.4 (0.19)	10.0*** (0.21)	67.0 (0.23)	27.8*** (0.25)	64.3 (0.22)	18.8*** (0.24)
Male	59.3 (0.44)	25.0*** (0.49)	52.2 (0.24)	9.3*** (0.27)	67.7 (0.28)	27.7*** (0.32)	65.8 (0.28)	19.0*** (0.31)
Female	52.5 (0.55)	23.6*** (0.59)	52.7 (0.29)	10.9*** (0.32)	65.9 (0.38)	27.8*** (0.41)	62.2 (0.35)	18.2*** (0.38)
Urban	59.4 (0.43)	24.2*** (0.52)	53.1 (0.23)	8.6*** (0.29)	69.6 (0.26)	27.4*** (0.34)	66.1 (0.27)	18.8*** (0.34)
Rural	51.6 (0.57)	21.0*** (0.59)	51.2 (0.30)	9.6*** (0.32)	62.4 (0.40)	24.3*** (0.42)	61.3 (0.37)	16.4*** (0.39)

Rural Punjab, Pakistan, Grade 4: LEAPS Survey, 2006

	Math		Urdu		English	
	Private	Diff (Pvt-Govt)	Private	Diff (Pvt-Govt)	Private	Diff (Pvt-Govt)
All	44.0 (0.31)	9.4*** (0.38)	46.0 (0.33)	12.0*** (0.40)	45.7 (0.27)	13.0*** (0.33)
Male	44.6 (0.42)	8.3*** (0.52)	44.3*** (0.44)	11.4*** (0.54)	44.9 (0.36)	13.7*** (0.44)
Female	43.3 (0.45)	10.8*** (0.54)	48.2*** (0.50)	12.7*** (0.59)	46.8 (0.40)	12.1*** (0.48)

Source: Authors, based on data from student assessments.

Notes: In India, figures refer to the share of students who can do at least one subtraction (math); write with three or fewer mistakes (writing); and read a paragraph or story (reading). In Nepal, figures refer to mean scores out of a maximum of 100 in each subject. In Pakistan, figures are the percentages of questions correctly answered.

21. Table 3 shows the strong statistical significance and large magnitude of the private-government gap, at the aggregate level as well as within each gender and rural/urban subpopulation, which indicates that the aggregate pattern is not driven by any particular subpopulation. However, even within each socio-economic subpopulation identified in Table 3, it may not necessarily be the case that unaided private schools provide higher student achievement than government schools, as factors other than the type of school and its features may matter. For example, the previous section on school enrollment shows that private school students tend to come from wealthier households (we are not able to provide this information reliably using the student achievement datasets), and may therefore be better nourished and prepared, receive more family support and motivation, and be more likely to attend pre-school than government school students, thus faring better at primary and secondary levels. There may also be other impacting factors that are not observed in the data, such as the quality of the relationship between parents and children, and between parents themselves, or social networks.

22. To what extent may the government-private school difference in performance be attributable to observed student and household characteristics? A number of studies on India, Nepal, and Pakistan have attempted to use rigorous econometric tools to answer the question. For example, Muralidharan and Kremer (2007) find that the score gap between government and unaided schools in India on a short grade-4 test is reduced by 0.07 standard deviation but stays at 0.5 standard deviation after taking into account parents' education and literacy, household infrastructure, and children's uptake of private tutoring. In Punjab, Pakistan, Andrabi et al. (2007) find no change in the LEAPS score gap after controlling for child characteristics (gender, age, height-for-age, parental perception of intelligence and self-reported health status), and a reduction of 20% of the gap after adding controls for family characteristics (education, wealth and availability of books/media at home). Desai et al. (2009) and Goyal (2009) report that the household's rural-urban location and parents' educational and socioeconomic status are statistically significant determinants of children's test scores in India. The consensus across studies is that observed student and household characteristics play an important but modest role in explaining the private school advantage in student achievement.

23. Factors at the student and household levels that are not observed in the data could also play an important role. Accounting for these factors, one study highlights that an insignificant government-private school achievement gap remains, while other studies show that a nontrivial gap remains. Chudgar and Quin (2012) use the propensity score matching method on the India Human Development Survey data and report test score differences that are largely statistically insignificant between unaided and aided/government schools. By contrast, analyzing the same data, Goyal (2009) applies a new econometric methodology proposed by Altonji, Elder and Taber (2005), and finds unobserved bias in selection accounts for only about 10% of the gap. Andrabi et al. (2010) instrument for child selection into private schooling using a relative measure of distance to a private school, and find that, in rural Punjab, Pakistan, private schooling brings a test score advantage of 0.82 standard deviation in English, 1.15 standard deviations in Urdu and 1.11 standard deviations in math. Basu proposes a hypothesis in his critique of Desai et al. (2009) that parents may choose private schools due to their branding as generally better than government schools, and so that their children can network with better-off peers for later career and social benefits. This may help explain low achievement levels at private schools, which may be due partly to low intrinsic motivation.

24. Summarizing the evidence up to this point, making the hypothesis that students enrolled

in a private unaided school and those enrolled in a government school were exactly the same in all aspects, private unaided schools appear to have a non-negative achievement premium, compared to government schools, although the extent of that premium varies greatly between studies. We turn to the next important question: what are the underlying drivers of the premium? The evidence is mixed on which school type profile looks better, as well as on the statistical significance of differences, depending on the factors and the location under study. Across studies, unaided schools are found more likely to have basic facilities such as chairs, desks, electricity, fans and toilets, but may or may not be more likely to have a library, playground, or non-mud floor. Teachers in unaided schools tend to be local, younger, with less experience and formal training, although no systematic differences in educational qualifications seem to exist. Multi-grade teaching and the student-teacher ratio are overwhelmingly found to be less, and English teaching found to start earlier in unaided schools than in government schools across studies. On the other hand, government schools are overwhelmingly more likely to provide midday meals. It seems plausible that some of the observed characteristics of unaided schools indeed contribute in a meaningful way to their students' achievement. Glewwe et al. (2011) undertake a comprehensive review of the literature on the causal impact of school resources and educational outcomes, regardless of the school type, and find strong evidence in favor of the availability of desks and chairs, which private unaided schools tend to be better at. Causal evidence in the literature is inconclusive with regards to the other characteristics.

25. Another set of school-level factors that has been highlighted in the literature as central to student learning is teacher knowledge, behavior and effectiveness. Studies reveal alarming teacher absenteeism in government schools in South Asia. For example, Chaudhury et al. (2006) report 25% teacher absenteeism in government schools in India and 16% in Bangladesh. Meanwhile, despite their average lower qualifications and significantly lower pay, teachers in unaided private schools in the region have been overwhelmingly found to be more present and active at school. In rural India, Muralidharan and Kremer (2007) find 2–8 percentage points less teacher absenteeism, and 6–9 percentage points more teaching activity in unaided schools than in government schools. Tooley (2009) reports that on visits to 265 schools in slum areas of East Delhi, teachers were teaching in only 38% of the government schools, but in 70% of the private schools. Under fixed-term contracts, as opposed to unconditional permanent contracts, unaided private school teachers are likely to be more accountable to school leadership. Mostly locally hired, private school teachers may also be more directly accountable to parents and the community, and likely to communicate and relate better to students due to cultural and social proximity. Another possibility is that unaided school teachers have stronger intrinsic motivation than government school teachers, and therefore are willing to accept lower-pay jobs to teach children in need. Tooley and Dixon (2007) find from a recent study in East Delhi, India, that 29.4% of government school teachers were “very satisfied” with their pay, and so were 25.9% of teachers in private unregistered schools despite their pay being 9 times lower.

26. The striking extent of the difference in wages between government and private school teachers is worth noting. Andrabi et al. (2007) document that wages for private school teachers in rural Punjab, Pakistan, were up to 5 times lower than for government school teachers. Kingdon and Muzammil (2012) suggest a worsening trend: in Uttar Pradesh, India, government school teachers were paid 2.5 times the wages of unaided school teachers in the early 1990s, 5 times in the early 2000s, 12 times in 2008, and most probably up to 24 times thereafter with the Sixth Pay Commission's salary recommendations in effect. Private school teachers are usually hired and paid competitively against the local labor market, and likely to be women who would

face social and/or commuting barriers in traveling to work outside of the local community.

27. It is important to continue developing better understanding of what works in unaided private schools, as well as what does not work, as performance in these schools is also alarmingly poor. Moreover, long-term improvements in learning may require changes that are different than the changes that bring short-term gains. For example, as children become more educated, they will need more supply of better qualified teachers to provide them with enhanced knowledge and skills. It should also be noted that many unaided private schools in the region are unregistered, and therefore not subject to government regulations (see, for example, Kingdon, 2007; Goyal and Pandey, 2011). Yet, their student achievement is no worse. Goyal and Pandey (2011) even find that in Uttar Pradesh, India, grade-4 and grade-5 students in unregistered private schools perform better than students in government and registered private schools. This casts doubt on the effectiveness of regulations, especially in the face of weak institutional capacity and corruption.

III.b. Traditionally aided private schools in India and Bangladesh (Type (2) in Table 1)

28. The evidence shown in Figure 6 indicates that performance of aided schools in India is quite similar to, if slightly poorer than, performance of unaided schools. This pattern coincides with that reported by Goyal and Pandey (2011), controlling for student, household, and school-level characteristics. In Bangladesh, at the primary level, test scores from the 2011 National Student Assessment are reported to be even higher for government schools than for recognized non-government schools, most of which receive subsidies from the government (World Bank, 2013). It is important to note a key feature common among aided schools in the region, which is that teachers in these schools are actually hired through the government system, and subsidies are made based on enrollment. If enrollment is correctly reported, and households can effectively choose better schools, this mechanism would induce behavior on the part of teachers and head-teachers in the same way as market mechanisms do to enforce accountability in unaided schools. However, enrollment reporting tends to be subject to large upward margin errors due to technical and administrative loopholes in the system (Kingdon, 2007). Moreover, the elimination of school tuition in aided schools may make parents more tolerant of school weaknesses.

III.c. Aided private schools with student achievement incentives in Pakistan (Type (2) in Table 1)

29. Although government support to private schools in Pakistan is rare, recent public-private partnership initiatives have proven to cost-effectively generate gains in student participation and achievement. For example, the Foundation-Assisted School (FAS) program, introduced in 2005 and administered by the Punjab Education Foundation (PEF), provides monthly per-student subsidies to low-cost private schools conditional on free schooling for all students and a minimum student pass rate on a standardized academic test. There are also group-based teacher bonuses conditional on a minimum score on a composite measure of student test participation and mean test scores, and competitive bonuses for schools that rank highest in average student scores on the test. As of June 2010, at its sixth phase of expansion, the FAS program was supporting about 800,000 students in 1,800 schools in 29 of the 36 districts in the province.

Barrera-Osorio and Raju (2010) show that within two years the program generated large gains in enrollment and school inputs (a gain of approximately 40%) and student achievement (a gain of 0.3–0.5 standard deviation). Interestingly, the group-based teacher incentive is found to have no impact on student achievement. This coincides with a finding by Muralidharan and Sundararaman (2011) that group-based teacher incentives are less effective than individual teacher incentives in an experiment in India. The examples above indicate the importance of incentive scheme design, which should be highlighted given the recent strong interest in creating incentives in the region and around the world to improve learning quality⁷.

⁷ Group-based incentives are much less complex to implement than individual incentives, and therefore more common. The few recent studies that have found significant impacts of group-based teacher incentives tend to have particular features. For example, Glewwe et al. (2010) study schools in Kenya that typically have only 200 students and 12 teachers in a school, hence a very low student-teacher ratio. Fryer et al. (2012) find small and statistically insignificant results from a standard group-based incentive scheme, but find large and statistically significant results when applying a loss aversion mechanism where teachers are paid in advance and asked to give back the money if their students do not improve sufficiently. On the other hand, Duflo et al. (2012), the other study that we are aware of that is able to implement individual teacher incentives, finds significant improvements in student learning. Although their estimates may not be directly relevant to developing countries, Imberman and Lovenheim (2012) use U.S. data to show that small groups provide productivity gains over large groups in response to group-based teacher pay incentives, with the optimal group size being roughly 3 to 5 teachers. Small groups may be better at keeping the “free riding” and “award salience” problems in check while benefiting from group cooperation. Free-riding is the problem of relying on others’ efforts in a group without exerting enough own efforts, and award salience is the problem of seeing own efforts as atomic and inconsequential in affecting the aggregate outcome. Indeed, besides the above mentioned studies, most other recent research on group-based teacher incentives given to schools or relatively large groups has also shown small or negligible effects on student achievement (see, for example, Springer et al., 2010; Goodman and Turner, 2012; Fryer, 2013). Studies vary greatly in the context of the intervention and it is important to design an effective incentive scheme in accordance with the specific context; however, the discussion above highlights some key design elements for both the government and private sector to take into account.

Table 4. Evaluations of the impact of school-level services provided by the private sector to government schools

Impact evaluation study	Private sector entity involved	Description of school-level services provided by private sector	Beneficiaries of services	Findings of impact evaluation
Banerjee et al. (2007)	Pratham	Balsakhi program: A teacher provided by Pratham to children falling behind in basic literacy and numeracy in Grades 3 and 4.	India: Government schools in Mumbai and Vadodara cities	After two years, increase of 0.28 standard deviations in test scores for Balsakhi and 0.47 standard deviations in test scores for computer-assisted learning, mostly among students with initial weakest scores. Impact faded to about 0.1 standard deviations one year after services.
	Pratham, Media-Pro	Computer-assisted learning program: Instructors from Pratham teaching students to use computer software (off-the-shelf, internally developed, and developed by Media-Pro) to improve math.	India: Government elementary schools in Vadodara city	
Banerjee et al. (2010)	Pratham	Information to beneficiaries on existing education-related institutions	India: Government primary and secondary schools in Uttar Pradesh	In all three activities, no impact on community involvement, teacher effort, or learning outcomes inside the school. Substantial improvements in reading skills in remedial reading activity.
		Community members trained to engage in a testing tool for children		
		Volunteers trained to hold remedial reading camps for children		
Banerji and Walton (2011)	Pratham	Combination of (1) Pratham training and academic support to government school teachers; (2) specially designed learning materials; (3) village volunteer support to children in need	India: Government primary and secondary schools in Bihar and Uttarakhand	Significant improvements in reading, writing and math test scores, with largest gains among students with weakest initial scores.
Borkum et al. (2013)	Akshara Foundation	Akshara providing libraries with books and educational activities.	India: Government primary schools in Bangalore	No impact on student test scores after 16 months.
He et al. (2008)	Pratham	English language instruction methods consisting of a specially designed machine or flash card based activities implemented either indirectly through a teacher training program or directly by externally supervised teaching assistants.	India: Government primary schools in Mumbai	After one year, all implementation strategies yielding gains of about 0.25-0.35 standard deviation in students' knowledge of English. Weaker students benefiting more from teacher directed activities while stronger students benefiting more from the more self-paced machine-based activities.
He et al. (2009)	Pratham	<i>Shishuvachan</i> curriculum that focuses on comprehension facilitated by teacher-student interaction centered around storytelling and classroom games.	India: Government primary schools and pre-schools (as well as some Pratham pre-schools) in Mumbai	Gains of 0.12 to 0.70 standard deviations in performance on basic literacy assessment. More effective as a supplement to existing instruction rather than as a primary means of instruction. Larger gains for students with weaker initial reading ability.

Source: Authors's literature review.

III.d. Aided private schools with vouchers (Type (2) in Table 1)

30. In India, the few trial voucher schemes that exist are mostly run by educational foundations⁸. Muralidharan and Sundararaman. (2013) study a program in rural Andhra Pradesh that provides government vouchers to class 1 students to move to a private school of their choice, and find no impact on test scores in Telugu, Math, English, and Science/Social Sciences, but a significant impact on test scores in Hindi at the end of 4 years of implementation. Interestingly private schools that use Telugu as the medium of instruction appear to do better in Math, Science/Social Sciences and Telugu while private schools that use English as the medium of instruction do better in English and Hindi. (Hindi is not taught in government schools). This is consistent with the multi-language curriculum that private schools in general report adopting to imitate elite private schools. No evidence is found of negative spillovers on government-school students who do not apply for the voucher, or on students who start out in private schools. Meanwhile the mean cost per student in the sampled private schools is less than a third of that in government schools. The results suggest benefits in terms of cost-effectiveness and social inclusion of the recent Right to Education Act provision mandating private schools to reserve up to 25% of their seats for students from disadvantaged backgrounds (with a reimbursement of fees by the government). However, the study's experimental design is not identical to the design implied in the Right to Education Act provision, and the study's rural context may not speak for urban areas. Hence caution is warranted in drawing policy implications.

III.e. Schools for out-of-school children: aided schools in Pakistan and Bangladesh (Type (2) in Table 1), and schools financed by donors and managed by NGOs in Afghanistan (Type (4) in Table 1)

31. Out-of-school children in hard-to-reach, underserved areas are a group of beneficiaries for whom partnership between the government and local private sector seems particularly relevant, given the potentially high effort costs of setting up and running schools in these areas if the government were to undertake the operations. Although the programs discussed here did not have student achievement incentives in their evaluated designs, they are found to have significantly improved test scores. This finding may have to do with the extremely low baseline of out-of-school children, which potentially allows great returns to interventions. In Sindh, Pakistan, the government started the Promoting Private Schooling in Rural Sindh (PPRS) program in 2009, supporting the establishment and operation of new primary schools by recruited entrepreneurs in underserved communities. Barrera-Osorio et al. (2011) find that the program has brought substantial gains in children's school participation and achievement. In Bangladesh, under the Reaching-Out-of-School-Children (ROSC) project - a 2004 government initiative to provide schooling to out-of-school children aged 7-14 years - schools have been created at the demand of communities and managed by a school committee directly accountable to parents and students. According to Dang et al. (2011), ROSC schools have provided out-of-school children with an education of quality similar to that at regular government schools, at half the cost. In Afghanistan, between 2006 and 2011, the Partnership for Advancing Community-

⁸In Pakistan, the Punjab Education Foundation (PEF) in 2006 launched the Education Voucher Scheme (EVS) for out-of-school children of ages 4-17 years in underprivileged areas. The voucher is redeemable against payment of fees in partner private schools. The scheme currently covers approximately 140,000 children in all Punjab districts. A framework to evaluate impacts on student outcomes, including student achievement, is being developed.

Based Education (PACE-A), funded by USAID, and managed and supported by a consortium of NGOs, organized a variety of development and capacity-building activities to improve access to basic education in rural underserved areas, with the final goal of government takeover and ownership. Burde and Linden (forthcoming) find that village-based school construction and provision of educational materials and training to locally recruited teachers reduced gender disparities in enrollment and improved math and language scores of 6–11 year-olds.

III.f. Private sector providing school-level services to government schools (Type (3) in Table 1)

32. Table 4 lists a number of studies on the impact on student achievement of private sector engagement of this type in South Asia that we are aware of; they happen to all be in India and almost all involve the NGO Pratham. One common finding across the studies is that students with weaker initial ability or test scores tend to benefit the most from activities with more interaction with teachers and/or with support that directly complements the regular curriculum (Banerjee et al., 2007; He et al., 2008; He et al., 2009; Banerji and Walton, 2011). This is consistent with the finding by Banerjee et al. (2010) that support specifically targeted at students' reading weaknesses yield substantial improvement in reading skills, but there is no gain from general, untargeted support designed to increase community knowledge about education-related institutions and community engagement with academic tools. This is also consistent with the lack of impact found by Borkum et al. (2013) for the Akshara Foundation's initiative that provides books, libraries and related educational activities in a general manner to government schools. Moreover, Banerjee et al. (2007) and Banerji and Walton (2011) point out no or minimal benefits for students who are already relatively strong in the competencies that interventions aim to improve. He et al. (2008) find that more able students gain more from activities that allow them to pace themselves. The above studies combine to highlight the importance of customizing teaching and academic support to different student achievement levels. The sustainability of impact over time is another issue brought up in Banerjee et al. (2007), which requires further study on how it may be related to the duration and design of the intervention.

III.g. Outside-classroom tutoring in India, Nepal and Sri Lanka (Type (5) in Table 1)

33. Evidence on the impact of outside-classroom tutoring on student achievement varies greatly depending on the design of the activity. Many of the services provided by the NGO Pratham to government schools in India that are discussed in Section III.f. are of a tutoring nature: the Balsakhi program studied in Banerjee et al. (2007), the remedial reading program studied in Banerjee et al. (2010), and the village volunteer support program studied in Banerji and Walton (2011). These services appear to significantly benefit weaker students, at least in the short run. By contrast, Glewwe and Jayachandran (2006) and Jayachandran (2012) study a widespread phenomenon of after-school tutoring offered by school teachers in Sri Lanka and Nepal, respectively, and show that tutoring increases inequality in test scores among classmates, at the expense of weaker students, in a context of minimal monitoring of in-school teaching. The underlying problem seems to be moral hazard, in that teachers teach less during school hours in order to increase demand for tutoring, and might also penalize students who choose not to take

tutoring. A key difference between the tutoring services offered by Pratham and those provided by government schools in Nepal and Sri Lanka is that the Pratham services are designed to complement in-school teaching to a subset of students that need more attention, thus there is no conflict of incentives and moral hazard on the part of teachers. The findings for the Pratham services coincide with findings for after-school and summer programs in the U.S., which have been shown to especially benefit disadvantaged students who are at higher risk of losing skills and dropping out of school (see, for example, Jacob and Lefgren, 2004; Lauer et al., 2006), although U.S. point estimates may not be directly relevant for developing countries.

IV. Conclusions and policy implications

34. Private sector engagement in the provision of educational services in South Asia is increasingly extensive, various in forms, and reaching disadvantaged sections of the population. However, the poorest are still left out of this trend, and large shares of the population still rely on the government for basic schooling. It is important to acknowledge the average low student achievement levels in private schools and the existence of bad private schools, while the government is still to be seen as an important service provider, with its share of good schools. On the other hand, it is also important to note that in an education market, the quality of government schools serves as the benchmark against which private schools differentiate themselves. The lower the quality of government schools, the lower the quality that private schools need to achieve to show an advantage, unless the market is competitive among private schools, which is unlikely to be the case in many rural areas.

35. The private sector has comparative advantages, such as geographic, cultural and social proximity to local students and communities, easier access to the local labor market, and more workable accountability mechanisms. These advantages allow unaided private schools to perform, on average, at least as well as government schools in terms of student test scores at significantly lower costs to society. In particular, by comparing school characteristics and drawing evidence from the literature in the region and elsewhere, we find substantial, albeit indirect, support for the role of teacher behavior and accountability as an important driver of private schools' effectiveness. Some physical resources such as desks and chairs that are more available in private schools also seem to help with learning. The comparative advantages of the private sector would not suffice to induce student achievement over the long run, if there is little improvement in the professional knowledge and skills of the pool of local teachers. Student achievement also needs to be more reliably and regularly measured so that progress can be continually tracked, parents engaged and teacher accountability effectively enforced. Moreover, demand away from government schools may be inflated by the inferior brand that government schooling may be associated with due to the widely observed low quality. Parents of private school students may look for schooling benefits other than, and sometimes at the expense of, performance on "mainstream" subjects; they may look for proficiency in English, network benefits, and a sense of belonging to the elite class in society. This potential issue makes concerns about raising standards in the long term ever more pertinent.

36. Many unaided private schools, whose students perform, on average, at least as well as government school students, are unregistered and not operating under government regulations. This casts doubt on the effectiveness of regulations on school registration, fees and teacher credentials that the government may set for private schools. In areas with particularly poor

student achievement, many out-of-school children, and few teachers available, it might be unwise to require high teacher qualifications, as that would push up schooling costs, making it prohibitive to poor children. On the other hand, when teachers are in abundant supply, there is likely to be competition among teachers and among schools, which would help improve schooling quality and cost-effectiveness through market mechanisms. Regulations on private school fees may not be a good way to ensure equity in education either. A maximum cap would need to be low enough to matter to poor students, but low costs may come with less quality. Moreover, regulations and standards require capacity in systems and human resources to ensure compliance; when not effectively enforced, they add no value and are likely to provide opportunities for corruption, especially given the weak institutional capacity in the region. The misalignment between government and unregistered private schools in the education system may even give rise to an ironic inefficiency problem, as reported by Muralidharan and Kremer (2007) for India: many children double-enroll in a government and an unregistered private schools, so as to get the better schooling in the private school and also receive official records of achievement at the government school, along with stipends and free schooling supplies if available.

37. One common indirect finding of studies on private schools is that government teachers are greatly overpaid with respect to student achievement outcomes. Hence a focus on student achievement in policy dialogue and policymaking, and gradually strengthening the governance and accountability system in government schools would be important. This requires a system of reliable and regular measurement of student achievement to begin with. Care needs to be taken in designing accountability schemes to maximize effectiveness, as highlighted in the discussion above on individual incentives versus group-based incentives.

38. With effective targeting and accountability mechanisms, contractual partnerships between the government and private sector can leverage both “equity” and “efficiency.” A good candidate for such a partnership is remote, hard-to-reach areas where the set-up and operational costs are likely to be higher than the costs of enforcing accountability measures, such as attendance, test scores and feedback redressal, between the government and private sector. On the other hand, a caveat is warranted against the lack of accountability in government financing of traditionally aided schools in Bangladesh and India, as students in these schools have been observed to generally perform not as well as unaided private schools. Muralidharan and Sundararaman (2013) show that a school choice scheme using government vouchers to increase disadvantaged children’s access to private schooling could bring meaningful benefits in terms of cost-effectiveness and social inclusion. This provides suggestive support to the recent Right to Education Act provision that could make India the world leader in the number of children attending private schools with government funding, and also in the inclusiveness of private schooling, although caution is in order in drawing policy implications given that the study’s design is not identical to the one implied by the Right to Education Act provision, and also the study’s limit to rural areas.

39. Regional and international evidence suggests that understanding and customizing teaching to the child’s individual level and way of learning is important to improving academic achievement. One way is through outside-classroom tutoring that assists weak students, and avoids the moral hazard on the part of the teacher (at the expense of in-classroom teaching and learning) that tutoring services in developing countries are often criticized for. Holding teachers accountable for student achievement and progress in school would help create the right incentives. There are also other potential ways to encourage and enable teachers to take more

ownership of each child's learning, such as optimizing the daily timetable, developing a systemic framework for measuring performance and progress, and engaging parents on a regular basis.

References

- Altonji, Joseph G., Todd E. Elder, and Christopher R. Taber. 2005. "Selection on Observed and Unobserved Variables: Assessing the Effectiveness of Catholic Schools." *Journal of Political Economy*, 113(1): 151-184.
- Andrabi, Tahir, Jishnu Das, Asim Ijaz Khwaja, Tara Vishwanath, and Tristan Zajonc. 2007. "Learning and Educational Achievements in Punjab Schools: Insights to Inform the Education Policy Debate." Project Report.
- Andrabi, Tahir, Natalie Bau, Jishnu Das, and Asim Ijaz Khwaja. 2010. "Are Bad Public Schools Public "Bads"? Test Scores and Civic Values in Public and Private Schools." Working Paper.
- Angrist, Joshua D., Parag A. Pathak, and Christopher R. Walters. Forthcoming. "Explaining Charter School Effectiveness." *American Economic Journal: Applied Economics*.
- Aslam, Monazza. 2009. "The Relative Effectiveness of Government and Private schools in Pakistan: Are Girls Worse Off?" *Education Economics*, 17(3): 329-354.
- Aslam, Monazza, and Paul Atherton. 2012. "The 'Shadow' Education Sector in India and Pakistan: The Determinants, Benefits, and Equity Effects of Private Tutoring." Working Paper.
- Banerjee, Abhijit, Shawn Cole, Esther Duflo, and Leigh Linden. 2007. "Remedying Education: Evidence from Two Randomized Experiments in India." *Quarterly Journal of Economics*, 122(3): 1235-1264.
- Banerjee, Abhijit, Rukmini Banerji, Esther Duflo, Rachel Glennerster, and Stuti Khemani. 2010. "Pitfalls of Participatory Programs: Evidence from a Randomized Evaluation in Education in India." *American Economic Journal: Economic Policy*, 2(1): 1-30.
- Banerji, Rumini, and Michael Walton. 2011. "What Helps Children to Learn? Evaluation of Pratham's Read India Program in Bihar and Uttarakhand." Research Note.
- Barrera-Osorio, Felipe. 2007. "The Impact of Private Provision of Public Education: Empirical Evidence from Bogota's Concession Schools." Working Paper.
- Barrera-Osorio, Felipe, and Dhushyanth Raju. 2010. "Short-Run Learning Dynamics Under a Test-Based Accountability System: Evidence from Pakistan." Working Paper.
- Barrera-Osorio, Felipe, David Blakeslee, Matthew Hoover, Leigh Linden and Dhushyanth Raju. 2011. "Expanding Educational Opportunities in Remote Parts of the World: Evidence from an RCT of a Public-Private Partnership in Pakistan." Working Paper.
- Borkum, Evan, Fang He, and Leigh L. Linden. 2013. "The Effects of School Libraries on Language Skills: Evidence from A Randomized Controlled Trial in India." Working Paper.
- Burde, Dana and Leigh Linden. Forthcoming. "Bringing Education to Afghan Girls: A Randomized Controlled Trial of Village-Based Schools." *American Economic Journal: Applied Economics*.
- Cameron, Stuart. 2011. "Whether and Where to Enroll? Choosing a Primary School in the Slums of Urban Dhaka, Bangladesh." *International Journal of Educational Development*, 31(4): 357-366.
- Chakrabarti, Rajashri. 2008. "Can Increasing Private School Participation and Monetary Loss in

- a Voucher Program Affect Public School Performance? Evidence from Milwaukee.” *Journal of Public Economics*, 92(5-6): 1371-1393.
- Chaudhury, Nazmul, Jeffrey Hammer, Michael Kremer, Karthik Muralidharan, and F. Halsey Rogers. 2006. “Missing in Action: Teacher and Health Worker Absence in Developing Countries”, *Journal of the Economic Perspectives*, 20(1): 91-116.
- Chudgar, Amita and Elizabeth Quin. 2012. “Relationship between Private Schooling and Achievement: Results from Rural and Urban India.” *Economics of Education Review*, 31(4): 376-390.
- Dang, Hai-Anh, Leopold Sarr, and Niaz Asadullah. 2011. “School Access, Resources, and Learning Outcomes: Evidence from a Non-Formal School Program in Bangladesh.” Working Paper.
- Desai, Sonalde, Amaresh Dubey, Reeve Vanneman, and Rukmini Banerji. 2009. “Private Schooling in India: A New Educational Landscape.” *India Policy Forum*, 5: 1-58.
- Duflo, Esther, Rema Hanna, and Stephen P. Rya.. 2012. “Incentives Work: Getting Teachers to Come to School.” *American Economic Review*, 102(4): 1241-1278.
- French, Robert and Geeta Kingdon. 2010. “The Relative Effectiveness of Private and Government Schools in Rural India: Evidence from ASER data.” Working Paper.
- Fryer, Roland G.. 2013. “Teacher Incentives and Student Achievement: Evidence from New York City Public Schools.” *Journal of Labor Economics*, 31(2): 373-427.
- Fryer, Roland G., Steven D. Levitt, John List, and Sally Sadoff. 2012. “Enhancing the Efficacy of Teacher Incentives through Loss Aversion: A Field Experiment.” Working Paper.
- Glewwe, Paul, Eric A. Hanushek, Sarah D. Humpage, and Renato Ravina. 2011. “School Resources and Educational Outcomes in Developing Countries: A Review of the Literature from 1990 to 2010.” Working Paper.
- Glewwe, Paul and Seema Jayachandran. 2006. “Incentives to Teach Badly? After-School Tutoring in Developing Countries.” Working Paper.
- Glewwe, Paul, Nauman Ilias, and Michael Kremer. 2010. “Teacher Incentives.” *American Economic Journal: Applied Economics*, 2(3): 205-227.
- Goodman, Sarena F., and Lesley J. Turner. 2012. “The Design of Teacher Incentive Pay and Educational Outcomes: Evidence from the New York City Bonus Program.” Working Paper.
- Goyal, Sangeeta. 2009. “Inside the House of Learning: the Relative Performance of Public and Private Schools in Orissa.” *Education Economics*, 17(3): 315-327.
- Goyal, Sangeeta, and Priyanka Pandey. 2011. “How do Government and Private Schools Differ? Findings from Two Large Indian States.” Working Paper.
- He, Fang, Leigh Linden, and Margaret MacLeod. 2008. “How to Teach English in India: Testing the Relative Productivity of Instruction Methods within the Pratham English Language Education Program.” Working Paper.
- He, Fang, Leigh Linden, and Margaret MacLeod. 2009. “A Better Way to Teach Children to Read? Evidence from a Randomized Controlled Trial.” Working Paper.

- Imberman, Scott A., and Michael F. Lovenheim. 2012. "Incentive Strength and Teacher Productivity: Evidence from a Group-Based Teacher Incentive Pay System." Working Paper.
- Jacob, Brian A., and Lars Lefgren. 2004. "Remedial Education and Student Achievement: A Regression-Discontinuity Analysis." *The Review of Economics and Statistics*, 86(1): 226-244.
- Jayachandran, Seema. 2013. "Incentives to Teach Badly? After-School Tutoring in Developing Countries." Working Paper.
- Kingdon, Geeta Gandhi.. 2007. "The Progress of School Education in India." *Oxford Review of Economic Policy*, 23(2): 168-195.
- Kingdon, Geeta Gandhi, and Muzammil, M.. 2012. "The School Governance Environment in Uttar Pradesh, India: Implications for Teacher Accountability and Efforts." *The Journal of Development Studies*, 49(2): 251-269.
- Muralidharan, Karthik, and Sundararaman, Venkatesh. 2011. "The Aggregate Effects of School Choice: Evidence from a Two-Stage Experiment in India." Working Paper.
- Lauer, Patricia, Motoko Akiba, Stephanie B. Wilkerson, Helen S. Apthorp, David Snow, and Mya L. Martin-Glenn. 2006. "Out-of-school-time Programs: A Meta-Analysis of Effects for At-Risk Students." *Review of Educational Research*, 76(2): 275-313.
- Lewis, Laura, and Patrinos, Harry Anthony. 2011. "Framework for Engaging the Private Sector in Education." Policy Paper.
- Linden, Leigh. 2008. "Complement or Substitute? The Effect of Technology on Student Achievement in India." Working Paper.
- Muralidharan, Karthik and Michael Kremer. 2008. "Public and Private Schools in Rural India." *School Choice International*, edited by Rajashri Chakrabarti and Paul E. Peterson.
- Muralidharan, Karthik and Venkatesh Sundararaman. 2011. "Teacher Performance Pay: Experimental Evidence from India." *Journal of Political Economy*, 119(1): 39-77.
- Nguyen, Quynh and Dhushyanth Raju. 2013. "Private Schooling in Pakistan over Space and Time: Descriptive Evidence from National Household Surveys." Working Paper.
- Rahman, Mustafizur, Mohd Izham Mohd Hamzah, T. Subahan Mohd Meerah, and Mizan Rahman. 2010. "Historical Development of Secondary Education in Bangladesh: Colonial Period to 21st Century." *International Education Studies*, 3(1): 114-125.
- Springer, Matthew G., Dale Ballou, Laura Hamilton, Vi-Nhuan Le, J. R. Lockwood, Daniel F. McCaffrey, Matthew Pepper and Brian M. Stecher. 2010. "Teacher Pay for Performance: Experimental Evidence from the Project on Incentives in Teaching." Report, National Center on Performance Incentives.
- Thapa, Amrit. 2011. "Does Private School Competition Improve Public School Performance? The Case of Nepal." Working Paper.
- Tooley, James. 2009. *The Beautiful Tree: A Personal Journey into How the World's Poorest People are Educating Themselves*.
- Tooley, James, and Pauline Dixon. 2007. "Private schooling for low-income families: A census and comparative survey in East Delhi, India." *International Journal of Educational Development*, 27(2): 205-219.

World Bank. 2013. *Bangladesh Education Sector Review*. Quality Policy Note.