Public-Private Partnerships for Quality Education in India[1]

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I. Introduction

While the focus of education policy in developing countries such as India has largely centered on increasing the resource base and the number of government-run schools, the role of private fee-charging[3] schools in the primary education sector has not been appreciated as much by academics and policy makers. However, as several recent papers point out[4], private fee-charging schools increasingly cater to a substantial fraction of the primary-school going population in India. In this essay, I first summarize evidence from all-India data regarding the prevalence and characteristics of private schools in India and show that they outperform government-run schools on various measures of performance. I then discuss how a system of scholarships/vouchers for poor students can be designed so as to obtain the efficiency benefits of the private sector while negating its biggest disadvantage – which is the fact that it allocates goods and services largely according to people's ability to pay.

Finally, I consider some of the most important concerns with voucher-based systems and discuss ways in which these can be mitigated. In particular, I emphasize that increased use of private provision combined with public financing does not in any way absolve the state from its duty of ensuring universal quality education, but instead provides a potentially more efficient and equitable way of doing so. While the discussion in this paper is centered on primary education (where my own research has been focused) many of the points here are equally relevant to higher levels of schooling, and even more so to vocational and higher education.

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[3] The term 'private' school in this paper refers to privately-run fee-charging unaided schools (including both recognized and unrecognized schools)

[4] Examples include Kingdon (1996a and 1996b), PROBE Report (1999), De et al (2001), Tooley and Dixon (2003), Mehta (2005), the Pratham ASER Report (2005), and Muralidharan and Kremer (2006).

II. Some Facts on Private Schools in India

The lack of systematic data[5] on private schools has made it difficult to estimate their true share in enrollment and most research on this subject to date comes from small-sample studies at the state or district-levels[6]. Two recent studies (Muralidharan and Kremer (2006) and the Pratham ASER report (2005)) however present results from nationally representative samples of rural India to show that 28% of the population of rural India has access to fee-charging private primary schools in the same village, and that 16.4% of children aged 6 – 14 in rural India attend fee-charging private schools. The increasing prevalence of rural private schools appears to be a recent phenomenon, with nearly 50% of the rural private schools in our sample[7] having been established 5 or fewer years before the survey, and nearly 40% of private-school enrollment being in these recently-established schools[8]. The prevalence and enrollment share of private schools is widely believed to be significantly higher in urban areas.

While it has been postulated that the increasing prevalence of private schools is due to the poor performance of public schools, it has not been easy to systematically disentangle the extent to which the creation of private schools is reflecting demand due to poor public school performance as opposed to rising incomes. Using our unique nationwide data set, we are able to match the existence of one or more private schools in a village to the quality of the public schools in the same village as measured by the rate of teacher absence in the government schools.[9] We find that villages with high teacher absence in the public schools are significantly more likely to have private schools, and that this result is robust to being aggregated at the district and state levels. We also find a robust *negative* relationship between per capita income and the prevalence of private schools at

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See Kingdon (2006) for a more detailed account of various estimates of the share of private schooling in India and the attempts to reconcile them.

[6] Notable among these are Bashir (1994) in Tamilnadu, Kingdon (1996b) in Lucknow (Uttar Pradesh), Govinda and Varghese (1993) in Madhya Pradesh, Tooley and Dixon (2003) in Hyderabad (Andhra Pradesh) and Mehta (2005) in Punjab.

[7] This overview is based largely on the results reported in Muralidharan and Kremer (2006) unless mentioned otherwise. That paper also provides detailed information on the sampling methodology, tables of summary statistics and regression analysis which form the basis for this overview.

[8] This is consistent with the calculation in Aggarwal (2000) based on a study of private schools in Haryana where he estimates that the number of unrecognized schools in the study area are doubling every 5 years.

[9] See Chaudhury et al (2006) and Kremer et al (2005) for more details on how the data was collected and how the teacher absence rate was calculated

both the district and state-levels, confirming that it is areas with poor public schools as opposed to richer areas that are more likely to have private schools.

Private-school teacher salaries in rural India are typically *less than one-fifth* the salary of regular public-school teachers (and are often as low as *one-tenth* as much). This enables the private schools to hire more teachers, have much lower pupil-teacher ratios, and reduce multi-grade teaching (see Table 1). Private school teachers are significantly younger and more likely to be from the local area as compared to their counterparts in the public schools. They are 2-8 percentage points less absent than teachers in public schools and 6-9 percentage points more likely to be engaged in teaching activity at any given point in time. Combining the effects of a lower pupil-teacher ratio and a higher level of teaching activity leads to a child in a private school having *3-4 times more "teacher-contact time"* than in a public school in the same village. Private schools also start teaching English significantly earlier, which is something that parents repeatedly say they value in interviews. Finally, children in private schools have higher attendance rates and superior test score performance, with the latter being true even *after controlling for family and school characteristics*[10].

As many scholars have noted and as my field work and data confirms, private schools on average have inferior infrastructure and facilities compared to government schools, and the teachers have typically not undergone teacher training (Table 1). But in spite of this, the performance of the private schools is systematically superior in almost all the measures mentioned above. An idea of the relative cost-efficiency of the private schools can be gathered from the fact that the *total monthly revenue* of a typical rural private school is often less than the monthly salary of *one* government school teacher[11]. However, despite the very low salaries, the private school teachers are less absent and more likely to be engaged in teaching activity. One reason for this is likely to be that head teachers in private school are much more likely (and able) to take disciplinary action

[10] Of course, this does not "prove" that private schools are more productive, because it is possible that the differences in student attendance and test performance reflect unmeasured variables such as desire for education on the part of the parents. However, the superiority of the 'process' variables in private schools is unambiguously proven in the data.

[11] The median monthly revenue of a rural private school in our sample is around Rs. 4,000/month with median enrollment of around 72 children and median monthly fees of Rs. 63/month. The median salary for a regular government school teacher in a typical state like Andhra Pradesh is Rs. 7,500/month. The median salary for private school teachers is less than Rs. 1,000/month.

against shirking teachers than their counterparts in the public schools. We found that only 1 head teacher in the nearly 3000 public schools we surveyed reported ever dismissing a teacher for repeated absence[12]. On the other hand, 35 head teachers in our sample of around 600 private schools reported having at some point dismissed a teacher for repeated absence and so shirking teachers in the private sector are around 175 times more likely to have disciplinary action taken against them!

These factors probably explain[13] why even parents from highly disadvantaged backgrounds are willing to pay fees for their children to attend private school as opposed to attending the free government school[14] in the same village (20% of the children in rural private schools in our sample were first generation learners with illiterate parents). However, given that the private schools charge fees it is not surprising that while a significant number of children in private schools come from disadvantaged backgrounds they are still advantaged relative to the children attending the rural government schools. The challenge for policy is therefore to think about ways in which the superior efficiency, flexibility, and accountability of the private sector can be leveraged for better educational outcomes for *all* children. A scholarship/voucher system is a promising way of doing so.

III. The Case for Vouchers/Scholarships in India

The basic idea of an education voucher[15] is that the government would *fund students instead of schools* and that the *money would follow the student* and get paid to whichever school that the child *chooses* to enroll in. In such a situation, even the poorest parents would be able to send their child to a private school if they felt that it was superior to the public school, but they would be just as free to send their child to the government school

[12] See Kingdon and Muzamil (2001) for more details on the power of public-school teacher unions and how this has evolved over the years (based on a case study of Uttar Pradesh)

[13] The PROBE Report notes for instance that the difference in teacher accountability between public and private schools is clearly perceived by parents.

[14] This is in spite of additional benefits in government schools such as mid-day meals and free text books. A situation that is not uncommon especially in government schools where dry rations are provided instead of a cooked meal is 'double enrolment' whereby the child is enrolled in the government school to get the textbooks and dry rations, but actually attends the private school.

[15] There is a vast literature on the theory and empirics of school vouchers, which is not being listed here for lack of space. Overviews include Braun-Munzinger (2005), Gauri and Vawda (2004), and Hoxby ed. (2003). In the Indian context, educational vouchers have been advocated among others by Parth Shah (various working papers of the Center for Civil Society, New Delhi), and Vijay Kelkar (India Today, January 16, 2006)

if they felt that it was the best option for their child. Thus, the claim is not that *all* private schools are superior to government schools. Rather, the aim is to think about ways of providing the poorest and most disadvantaged sections of society with *the same set of choices* faced by their better-off counterparts. This is exactly what a voucher or scholarship program would do.

Parents can obtain a better school experience for their children in 2 ways – by "exit" (leaving for a better school) or by "voice" (engage in activities to improve their existing school) [16]. Under the current system, the richer parents have the option of "exit" to a better school, while the poorer parents don't have that option. It also turns out that the poorer parents are typically the ones with the least political "voice" and so they are doubly incapacitated by having neither the option of "exit" or "voice" to improve the public school. Providing vouchers to parents of poor children would give them (closer to) the same amount of choice the richer children have. So if a government school wants to continue attracting children it would need to provide a better product as opposed to having students simply because it is the only option for the poor.

From an economist's perspective, the key idea behind a voucher system is not an ideological predisposition towards either private or public schools, but rather the belief that competition can be a force for improving *both* public and private schools. One might argue that the competition already exists because private schools are coming up in so many villages (in addition to their near ubiquitous presence in cities). But the status quo is in fact the worst situation for the poor because those who care about education and are richer exit the public system and go to the private schools, which makes it harder to improve the public schools because the people with the influence to improve the situation are typically sending their kids to private schools. Our data shows for instance that in villages with a private school, even the elected members of the village panchayat are more likely to send their children to a private school. Similarly, *over 80% of government-school teachers in our sample send their own children to a private school*[17].

Providing every child (regardless of how poor) an opportunity to go to a school of *their choice* will not only expand the set of choices open to the poor, but also force the

[16] See Hirschman (1970)
[17] See Muralidharan (2006) for more details.

government schooling system to improve in order to be viable. The situation is not too dissimilar from the comparison between trying to improve Indian Airlines and MTNL in the 1980s by writing irate letters to the bureaucrat in charge as opposed to seeing the improvements that have *had* to come about as a result of improved competition from private airlines and telephone operators in the 90s. In the steady state of a voucher-based system, there will most probably be successful private schools *and* successful public schools[18], and all children would be able to exercise the choice of which school to go to based on what they think is better for them.

The attractiveness of such a system is that it harnesses the power of incentives and competition to ensure efficient production that is sensitive to what the users want while avoiding the biggest weakness of the market – which is the fact that it only caters to those with purchasing power. A school voucher puts purchasing power in the hands of every parent, and is thus likely to be a deeply empowering experience, especially given the central role of education in enhancing individual capabilities. Thinking about a system of financing students as opposed to schools also illustrates the enormous flexibility of the idea of a voucher. The value of the voucher can be calibrated on the basis of a composite measure of 'socioeconomic backwardness' so that more 'backward' children receive larger vouchers; it can be adjusted so that the value is significantly higher for children with disabilities[19] or special needs (a group that is very poorly catered to in the existing government school system); and it can include merit components whereby rewards are given for good performance.

A voucher system also provides the right incentives for schools to not only enroll children but to prevent drop outs (since the voucher money goes with the child). Schools will have the right incentives to hire the best teachers, hold them accountable, and be responsive to parents' needs. They will also have the freedom to develop different areas of expertise and specialization (say in sports, arts, special education, etc.) as desired by the parents. The experimentation under such autonomy can also serve to highlight

[18] Of course, public schools will need to given a lot more autonomy to be able to adapt their offerings and compete effectively. One way of doing this in the short term is to continue financing the public school to a base level, and then offering them a fraction of the "voucher money" that comes with children who choose to stay in the public schools to be spent in a discretionary way to improve the school.

[19] See Hoxby (2001) for more details.

models that are more effective than others, and one possible way of transferring best practices across schools could be the emergence of franchising models whereby quality standards are disseminated and ensured by education providers who have an interest in developing and protecting a long-term reputation[20]. As mentioned earlier, these arguments apply even more strongly to vocational and higher education, given that the private sector is much more sensitive to the skills that are needed in the workplace and is more nimble with respect to creating new course offerings[21].

IV. Concerns about Vouchers and some responses

While voucher-based systems hold a lot of promise, there are certainly a range of concerns with such a model – some well founded, and others less so. One of the less well-founded (but common) reactions to the idea of vouchers is an emotional response that equates encouragement of private participation in education with an abdication on the part of the state of its duty to provide universal education. However, as the discussion of the design makes quite clear, the idea of vouchers does not in any way deny that it is ultimately the state's responsibility to ensure that all children are educated. The key distinction is that while it is clearly the state's responsibility to *ensure* that all children are educated, it is not at all clear that the state needs to be in the actual business of *running* schools – especially given the increasing flight of even the poor from government schools (not to mention the children of a majority of government-school teachers themselves!).

The state would ensure universal quality education, by on the one hand providing the *financing* for all children to attend a school of their choice, and on the other hand defining and adequately fulfilling a regulatory function focused on setting standards and broadly defining curricular objectives, independently measuring school and student performance, making this information public in a systematic way (both to facilitate informed choice on the part of parents and to provide reputation-based incentives to schools), preventing fraud, and administering the voucher process with integrity. The state would thus in no way be absolved of its responsibility of "ensuring" universal

[20] We can already see this happening with the Delhi Public School for instance, and similarly with NIIT and Aptech for vocational computer-related skills. What a voucher-based system would do is to provide incentives for such models to reach poorer areas where they would otherwise not be viable.

[21] Witness for example the enormous success of institutes such as NIIT and Aptech in anticipating the skill needs of the workplace and catering to them.

education of a high quality. Recent cross-country research[22] shows that the best educational outcomes appear to be obtained by systems that combine public financing and private management in education – which is exactly the kind of public-private partnership that a voucher program would be.

There are however, an important set of concerns about voucher-based systems and their applicability to the Indian context, which we need to think about. These can broadly be classified into 2 types of concerns: The first are 'fundamental' concerns about what such a system means for education as a whole, and the second are 'technical' concerns about the details of such a program and its implementation. The most important of these are highlighted here along with the responses to them, with the first 3 being 'fundamental' concerns and the last 3 being of a more 'technical' variety:

1. *Does support for such a program mean giving up on the public schooling system?* Supporting the idea of vouchers does *not* in any sense mean 'giving up' on the public schooling system, and voucher programs can and should be carried out in parallel with other efforts to improve the functioning of government schools[23]. But it is also important to question the assumptions behind the supposed sacrosanct status of "government schools" in education policy. The main reason[24] why educationists and others probably see government schools as essential for achieving universal quality education is the fact that the poorest children currently attend these schools and so educationists understandably want to focus on improving them. But as long as the voucher experiments proposed here benefit the poorest of the poor and expand their set of choices, we probably ought to be agnostic on public versus private forms of provision and focus instead on understanding what works best so that we can suggest policies that benefit the poorest and weakest sections of society.
2. *Will a voucher-based system lead to further income-based stratification of the education system?* On the contrary, a voucher system offers the *best chance of reducing* such stratification by virtue of the voucher being targeted at the level of the *individual* and hence being a very flexible and efficient targeting instrument. So we

[22] See Woesmann (2006)
[23] The majority of my own research for example is focused on evaluating ways of improving government schools – especially by providing incentives and recognition for high performing teachers and schools.
[24] In addition to the earlier mentioned perception that running public schools is the only way in which a government can fulfils its duty of universal education.

could easily increase the amount of the voucher as a function of a composite measure of 'backwardness' (that includes income, family educational history, gender, and if necessary caste). Thus, by increasing the amount of direct financial support for education of the most backward sections of society, a voucher system could level the playing field much more than what we have achieved as a society to date.

3. *Will such a system destroy the fabric of citizenship which is based on the notion of all citizens sharing certain common values that are inculcated via a public schooling system?* Being inculcated with a common set of values and shared ideas of citizenship does not depend on physically attending a public school as much as on having a common curricular core[25] that can be required for all children regardless of which school they attend. If this were really a serious concern, we should be shifting all children of the middle class and elites into government schools – which is not about to happen anytime soon!
4. *Will there be an adequate supply response of private schools – especially in remote areas?* Our evidence on the rapid growth of rural private schools suggests that the barriers to entry for creating new schools are in fact quite low. If anything, a voucher system would greatly stimulate investment by the private sector in quality school education for the poor because of the greater security of a revenue stream under such a system. While it is true that not all remote rural areas would be served by private schools overnight, a very large number of villages (especially in states like Punjab, Haryana, Rajasthan, UP, and Bihar) already have private schools where a voucher pilot could be tried. Non-existence of private schools is also not a barrier to trying out a voucher model in urban areas which already have several private schools, and where competition and choice is very real.
5. *How will illiterate parents make an informed choice about schools for their child?* Tooley and Dixon (2003) report, in their detailed study of private schools in Hyderabad, that: "Parents turn out to be active choosers of schools for their children. When asked how many other schools the parents had investigated before they chose the present school for their child, no parent reported that they had not considered any other school. Indeed, 69% had investigated between two and seven other schools."

[25] Note that this refers to a standard curricular 'core' and not an entirely standard curriculum.

More broadly, it does not behoove us to second guess what parents think is in their child's best interest, and it is hard to believe that we will make them worse off by increasing their set of choices (given that they can always continue to send their child to the government school). In addition, the information content of choice can and should be further improved by the provision of accurate information about school facilities and educational metrics by either a government regulator or third party accreditation entity.

6. *What should the voucher amount be and how will such a system be implemented in the Indian context – especially given the concerns with regards to fraud prevention on the part of schools that could claim enrollment, cash the voucher, kick back money to parents, and not provide an education at all?* The amount of the voucher would be determined as a function of the average private school fees in an area. The effective implementation of such a program would ideally be based on having unique identifiers for all children, and an electronic database that can track which school the child is attending, so that the appropriate voucher payments can be made directly to the bank account of that school (and duplicate payments avoided). This is not as onerous as it might seem given that government schools today are required to compile a detailed census of all school-age children in their 'catchment area' and record which school the child is attending. As of now, this data is not being digitized and is mainly used to generate statistics on 'out of school' children, but it should not be very difficult to enter this data into an electronic database that would record the educational details for all children. Also as discussed earlier, fraud prevention will require an appropriate regulatory apparatus. But the focus of a regulating entity need not be on determining if every school is adhering to physical norms[26], as much as on ensuring that children are attending school and learning. This could be done by conducting externally administered annual learning assessments[27] that children are required to take at the end of the school year to continue receiving voucher funding for the next year. Clearly, the specifics of the administrative and oversight

[26] Which are often violated even by many government schools. In practice, this sort of 'regulation' amounts to little more than bribe collection opportunities for the officials (Tooley and Dixon 2003).
[27] These need not be 'high stress' examinations for younger children, but could instead be 'diagnostic assessments' that help teachers and parents know how the child is doing. This will also ensure that the focus of the system is on 'learning outcomes' as opposed to 'spending' or 'keeping children in school'.

mechanisms will have to be worked out in detail based on the exact context, but a broad response to concerns of 'technical' difficulties is that it will certainly be feasible to evolve a set of administrative criteria for pilot voucher programs, and that subsequent program design can respond to the learning from these pilot programs.

V. Conclusions and Recommendations

Nowhere is the failure of the Indian state more tragic than in its failure to provide universal quality education to its children. A striking way of thinking about the quality crisis in government schools is to look at the flight to private schools and ask: *"What does it say about the quality of the product (government schools), when you can't even give it away for free?"* The main purpose of this essay has been to demonstrate (with nationwide data) the extent to which private unaided schools are doing a better job at educating children at lower cost than the government system and to then provoke thinking about how this phenomenon can be leveraged to improve educational opportunities for *all* children via adoption of a voucher-based system for education.

The economic case for vouchers stems not only from the greater efficiency, flexibility, and accountability of the private sector, but also because it provides a promising channel for improving the performance of government schools via increased competition. *The most compelling reason for supporting a voucher program is however, on grounds of equity and justice* and the value of empowering the weakest sections of society by dramatically improving their options with respect to seeking a better future for their children via education. It is worth stressing just how empowering the ability to choose a school with fewer financial constraints can be for the weakest sections of our society and the potential revolution in expectations that it can set in place.

The point is not to claim that vouchers can be a 'silver bullet' solution that will solve all our educational woes overnight. Rather it should be thought of as an especially promising idea among a range of policy options we have to improve the quality of education across the board. The lack of empirical evidence regarding how a voucher-based policy would work in the Indian context means that it is premature to think about large-scale systemic change along these lines in the short run. What we should be doing, however, is to actively form partnerships between governments, academics, donors and

philanthropists, and NGOs/civil society organizations interested in education to systematically pilot voucher programs[28] in the next 3-5 years in various locations and to carefully analyze both qualitative and quantitative measures of the program in this period to generate evidence and deepen our understanding of how such a program would actually work in practice, so that we can then evaluate whether this is a viable option for education policy in India.

Work on improving government schools should absolutely continue in parallel to this endeavor and the two should not be seen as substitutes in any sense. However, the urgency of the matter is best illustrated by my conversation with a *gram sarpanch* who was sending his children to the private school in his own village. When I asked him why he did not send his children to the government school even though he was the elected head of the village body, his simple answer was: "*Jab tak main ye school sudhaar paaon, tab tak mere bachhon ka bhavishya bigad gaya hoga* (By the time I am able to improve this (government) school here, my children's future will have been compromised irreparably)". This is precisely the point. Anyone who thinks that the current pace of improvement of government schools is adequate should ask themselves *where they send or aspire to send their own children to school* and then ask themselves how it can be morally tenable that the weakest sections of society don't have a similar choice? The future of not just millions of children, but of our nationhood depends on transforming the ideal of "universal quality education" into practice, and leveraging the private sector to achieve this appears to be one of the most attractive options we have.

[28] One promising way of proceeding with pilot voucher programs would be along the lines outlined in the draft "Right to Education" bill that envisages reserving 25% of seats in all private schools for children of 'backward' categories with the government reimbursing the schools the lower of either the school fees or the per-student spending in the government school.

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Table 1

Facts on Private & Public Schools in Rural India

	Public	Private	Difference	Difference with Village Fixed Effects
Mean Total Enrollment	141.90	98.30	43.6***	80.7***
Mean Number of Teachers	3.60	5.20	-1.6***	-0.87***
Pupil-Teacher Ratio	43.43	19.16	24.3***	34.43***
Log Pupil-Teacher Ratio	3.58	2.78	0.8	1.045***
Multigrade teaching	0.71	0.51	0.20***	0.11***
Average grade of starting teaching English	2.62	1.67	0.95***	1.35***
Fraction of teachers engaged in teaching activity	0.44	0.50	-5.7% ***	-9.3% ***
Average Student Attendance	0.64	0.76	-11.3%***	-13.4%***
Average age of teachers	40.28	29.61	10.67***	12.35***
Fraction of college graduates	0.39	0.49	-0.10***	-0.01
Fraction of teaching certificate holders	0.80	0.28	0.52***	0.64***
Fraction of teachers from same village	0.23	0.46	-0.23***	-0.24***
Average school infrastructure index (0-5 scale)	2.89	2.75	0.1	0.247***

Notes:

(1) *** Signifies that the differences are significant at the 1% level

(2) Column 3 presents the differences in the all-India means of these characteristics. Column 4 shows the difference with Village-level 'fixed effects' – i.e. they compare public and private schools in the same village. The differences in column 4 are more pronounced than those in column 3, because private schools are disproportionately located in areas with poorly performing public schools. Column 4 provides the metric that is most relevant because it reflects the differences between public and private schools in the same village – which is the choice that is relevant for parents.