IS PRIVATE EDUCATION GOOD FOR THE POOR ?:

Working Paper from a study in sub-Saharan Africa and India

June 25th 2005

James Tooley, PhD
Professor of Education Policy
University of Newcastle Upon Tyne, England
www.ncl.ac.uk/egwest and james.tooley@ncl.ac.uk

International Research Co-ordinator: Dr Pauline Dixon, University of Newcastle

Note: This document is a Working Paper. Any comments or suggestions on this paper are welcome, and should be sent to the author at the address above.

Table of contents

Table of Tables

Table of figures

Executive Summary

Outline of study and findings

Many believe that the private sector has very little to offer in terms of reaching the Millennium Development Goal of 'education for all' by 2015. Private education is often assumed to be concerned only with serving the elite or middle classes, not the poor. And *unregistered* or *unrecognised* private schools are thought to be of the lowest quality and hence demanding of detailed regulation, or even closure, by the authorities. Our findings from a two-year in-depth study in Hyderabad, India; Ga District, Ghana; Lagos State, Nigeria; and Nairobi, Kenya, suggest that these conclusions are unwarranted. Private unaided schools, we argue, can play – indeed, already are playing – an important, if unsung role in reaching the poor and satisfying their educational needs.

The first component of the research conducted a systematic census and survey of *all* primary and secondary schools, government and private, in selected low-income areas. In the Hyderabad study, in the "notified slums' of three zones of the Old City, we found 918 schools, in which we interviewed school managers or headteachers, and observed their schools. Only 35% of these schools were found to be government schools, considerably fewer than the 37% of unrecognised private schools. In Ga District, Ghana, a peri-urban and rural area surrounding Accra, where 70% of families live on or below the poverty line, we investigated 779 schools in the same way, finding that only 25% of these were government schools. In the 'poor' areas of three local government districts (one rural, two urban) of Lagos State, Nigeria, the census and survey found 540 schools, of which 34% were government and the largest proportion (43%) private unregistered. We also conducted the research in the small shanty town of Makoko, in Mainland, Lagos State, where we found 32 private unregistered schools, and in three slums of Nairobi, Kenya, including Kibera, reportedly the largest slum in sub-Saharan Africa, where we found 76 private schools.

The second component then examined between 3,000 to 4,000 children in a stratified random sample in Hyderabad, Ga, Lagos State and Nairobi. Our sample included 153 schools (Hyderabad), 260 schools (Ga), 160 schools (Lagos State) and 80 schools (Nairobi). Tests were in mathematics, English and usually in one other subject, depending on the country. Children and teachers were also tested for their IQ, while questionnaires were administered to students, parents, teachers and school managers or headteachers.

Through this research, we have obtained an understanding of the nature and extent of private unaided schools serving low-income families in different African and Indian settings. In each we can say that the majority of poor school children attend private unaided schools, which generally perform better than government schools, at between half and a quarter of the cost. The schools are largely run by proprietors,

with very few receiving outside philanthropic support, and none receiving state funding. Roughly equal numbers of boys and girls attend private unaided schools, which have better pupil-teacher ratios, higher teacher commitment and sometimes better facilities than government schools. Teachers are not less satisfied with their salaries in private unaided than government schools, even though they are paid considerably less. Finally, a significant minority of all places in private unaided schools are provided free or at reduced rates, to serve the poorest of the poor.

The majority of poor parents choose private unaided schools for their children In Hyderabad, we found 65% of school children attending private unaided schools in 'slum' areas of three zones of the Old City of Hyderabad. The same number of children are in *unrecognised* PUA as there are in government schools (23% compared to 24%). In Ga District, 64% of school children attended private unaided schools, while in Lagos State, we estimated that 75% of school children are in private schools, with a larger proportion (33% compared to 25%) in unregistered private than in government schools.

Higher achievement in private unaided than government schools The private schools generally *outperform* government schools in mathematics and English and a third subject, in terms of raw and standardised scores. In Hyderabad, for instance, the mean scores in mathematics were about 22 and 25 percentage points higher in private unrecognised and recognised schools respectively than in government schools. (The research has controlled for a rich array of family and school background variables, and we suggest that the private schools' advantage is maintained after this statistical analysis. However, this is not yet reported as it is under peer review).

Private unaided schools cost significantly less than government schools in teacher costs The private unaided school advantage is achieved for considerably less expenditure on teachers – which is likely to make up the majority of recurrent in-school expenditure – than in government schools. In general, the average monthly teacher salary in a government school ranges between *three to four times higher* than in an unrecognised or unregistered private school. Despite this teacher satisfaction with salaries is not lower in private than in government schools, and in one case is higher. Apart from teacher salary costs, government schools are supported by a hugely expensive state bureaucracy, which also needs to be taken into account in any comparison of school costs; these additional costs will either be minimal or non-existent for private schools.

Gender equity in private unaided school enrolment In general, roughly half of pupil enrolment in private unaided schools is female – although in the Indian case, because more pupils in school are female, boys are more likely to be found in private schools. However, in the African cases, gender equity in pupil enrolment is maintained.

School enrolment underestimated Because many children are in unrecognised private schools that do not feature in government statistics, overall enrolment is much higher than figures suggest. This means that 'education for all' may be much easier to achieve than is currently believed. In Hyderabad, rather than the 16% out of school as is currently believed, taking into account the 80,000 children in private unrecognised schools not counted in official statistics could bring the proportion down to 6% or lower. In Lagos State, the existence of private unregistered schools, off the state's radar, might reduce the percentage of out of school children from 50% to 26%.

Free primary education serves to crowd out private schools and does not increase overall enrolment In Kenya we were able to observe the impact of free primary education on the private school enrolment in the slums. Despite the fact that huge increases in enrolment have been noted in government schools by commentators, our research suggests that, at best, this additional enrolment is fictitious: instead, children appear to have transferred from private to government schools. But, given the advantages of private schools and problems found in government schools, this may not be to their advantage.

Better pupil-teacher ratios in private unaided than government schools Pupil-teacher ratios in unrecognised or unregistered private schools are usually about half those in government schools – although in the case of Nairobi, they may be a third lower.

More teaching in private than government schools In all cases, when researchers called unannounced on classrooms, there was a significantly higher level of teaching going on in private unaided schools than in government schools. In Hyderabad, the percentage of teachers teaching in private recognised schools was 98%, and 91% in private unrecognised schools, compared to only 75% in the government schools. In Ga, the parallel figures were 75%, 66% and 57%.

The poorest are given free or subsidised seats in private schools Notwithstanding the fact that private schools are almost entirely dependent on income from pupils to survive, many offer free or concessionary places to those in need. In Hyderabad, we suggest that nearly one in five of all children in private unaided schools have free or concessionary seats provided for them: 7% have free places, and 11% concessionary seats. The poor are subsiding the poorest to attend private school.

Implications

The private contribution to 'education for all' could be seen as a great strength and something to be celebrated. Private education has an important role in helping the government meet its 'education for all' targets. But private schools could be improved, by creating revolving loan schemes to help infrastructural investment. Following the private schools' own example, scholarships could be extended,

through private or public means, to ensure 'pupil passports', targeted at the poorest children, enable them attend private schools.

1. Introduction

Can private education help in meeting the Millennium Development Goal of primary education for all by 2015? Can it help provide educational opportunities for the poor? To some, these may seem strange questions. Private education is often perceived to be about serving the needs of the elite and middle classes, not the poor. However, there is a growing body of evidence that challenges this conception. The Oxfam Education Report, for instance, reports '… the notion that private schools are servicing the needs of a small minority of wealthy parents is misplaced', and that 'a lower cost private sector has emerged to meet the demands of poor households' (Watkins, 2000, pp 229-230). Research in Haryana, India found that private *unrecognised* schools 'are operating practically in every locality of the urban centres as well as in rural areas' often located adjacent to a government school (Aggarwal, 2000, p. 20). Reporting on evidence from Haryana, Uttar Pradesh and Rajasthan it has been noted that 'private schools have been expanding rapidly in recent years' and that these 'now include a large number of primary schools which charge low fees', in urban as well as rural areas (De *et al*, 2002, p. 148). Finally for the poor of Calcutta there has been a 'mushrooming of privately managed unregulated pre-primary and primary schools' (Nambissan. 2003, p. 52).

In India and Africa private schools for low-income families, recognised and unrecognised, seem to be flourishing. Why do poor parents send their children to private unaided schools, when government schooling is available, usually free at the point of delivery? Several reasons have been put forward to explain this 'mushrooming' of the private school sector. These include the deterioration of government schools, the lack of government school places and (in India) the desire of parents for English medium instruction.

There has been a deterioration of the state sector; government schools are perceived to be no longer providing quality education for the poor and therefore private schools have emerged to cater for parental demand for a higher quality education. In Uganda and Malawi, for example, private schools have 'mushroomed due to the poor quality government primary schools' (Rose, 2002, p. 6 and Rose 2003, p. 80) and in Kenya 'the deteriorating quality of public education… created demand for private alternatives' (Bauer et al, 2002). In sub-Saharan Africa and Asia generally, 'the poor and declining quality of public education has led to growing numbers of parents sending their children to non-state schools' and in south Asia 'this amounts to a mass exodus' (Bennell, 2004, p. iv). The Probe Team reporting on northern Indian states, describes the 'malfunctioning' of public schools for low-income families (The Probe Team 1999, p. 47). The schools suffered from poor *physical facilities* and high *pupil-teacher ratios*, but what is most disturbing is the *low level of teaching activity* taking place. When researchers called unannounced on their random sample, *only in half* of the schools was there any "teaching activity" going on. In fully 33 per cent, the head teacher was absent. Significantly, the low level of teaching activity 'it has become a

way of life in the profession' (The Probe Team 1999, p. 63). These problems, the report notes, were not found in the *private* schools serving the poor and low-income families. In the great majority of these – a random sample again visited unannounced – there 'was feverish classroom activity'. So much so, that the majority of parents reported that 'if the costs of sending a child to a government and private school were the *same*, they would rather send their children to a private school.' (The Probe Team, 1999, p. 102). This deterioration of government school standards therefore has been attributed to the lack of teacher accountability, strong unions, (these two attributing to teacher absenteeism along with teacher complacency and lack of motivation to teach) poor facilities, high pupil teacher rations and poor functioning (Nambissan, 2003; PROBE team, 1999; Kremer et al, 2004; Habyarimana et al, 2003; Chaudhury et al, 2004; Aggarwal, 2000; Sen, 2001).

In a number of countries public schools have limited places, in some cases because of an increase in the number of school aged population and in others because of the lack of government spending on education in order to expand places. In Nigeria 'the inadequacy of the infrastructural facilities to cope with the very rapid rate of expansion in student enrolment is a major source of crisis in the education system' in the 1990s 'very few new classrooms were built to accommodate the extra 3 million pupils' (Nwagwu, 1997). In Tanzania 'as in many low-income countries, excess demand was sufficient to stimulate the growth of a large private sector' (Lassibille, et al, 1998, p. 38).

Finally, the demand for private school places has increased in India because private schools often, ostensibly at least, provide instruction in English, which parents regard as desirable. In Government schools in some Indian states, lessons are taught in the State language and English doesn't become a subject until Class 5 (Nambissan, 2003; De et al, 2002).

But are parents correct in their perceptions? Are private or government schools better in terms of educational achievement? Evidence from Africa appears mixed, with private schools shown to have both higher academic achievement (Cox and Jimenez, 1989) and lower achievement (Lassibille and Tan, 2001) than their government counterparts. Neither of these studies looked specifically at private schools serving low-income families. Several studies have compared the relative performance of private unaided, private aided and government schools in India – but again none has specifically looked at schools for the poor, and all appear to have considered only *recognised* private schools. A study in urban Lucknow, Uttar Pradesh, found that, after controlling for background variables, students in private unaided schools scored higher on standardised tests in mathematics than in the other school types. When the cost per achievement point was computed, private unaided schools achieved higher achievement for less than half the cost of the government schools (Kingdon, 1996). Similarly a study in Tamil Nadu found that students in private unaided high schools performed better than those in government schools in English and mathematics (Duraisamy and Subramanian, 2003). Children attending

private unaided schools in Madhya Pradesh outperformed children attending government schools in maths and Hindi: 'management-type - government or private - emerges as the most significant factor influencing learner achievement' (Govinda and Varghese, 1993, p. 265).

However, until now the quality of private schools serving low-income families has been unknown, because no quantitative research has been carried out in private schools in low-income areas before. It has simply been assumed that the quality of the *unrecognised* private unaided schools that are 'mushrooming', and serving the poor across Africa and Asia is low. The *Oxfam Education Report,* for instance, notes that while 'there is no doubting the *appalling standard* of provision in public education systems', (p. 230), this does not mean that private education is necessarily better. Of course, there are high quality private providers – no-one seems to dispute this – but these are the elite, well-resourced schools inaccessible to the poor. As far as private schools for the poor are concerned, these are of 'inferior quality'; indeed they 'offer a low-quality service' that is so bad it will 'restrict children's future opportunities.' The Report concludes, 'Surprisingly, in view of the confident assertions made in some quarters, there is little hard evidence to substantiate the view that private schools systematically outperform public schools with comparable levels of resourcing.' (Watkins, 2000, p. 230). The *Human Development Report 2003* UNDP (2003: 115) makes precisely the same claim. Similar claims of the low quality of the unrecognised private schools come from other sources, including a study from Calcutta: 'the mushrooming of privately managed unregulated pre-primary and primary schools… *can have only deleterious consequences for the spread of education in general and that among the poor in particular'* (Nambissan, 2003, p. 52). The quality of education in the private schools is 'often suspect' (p. 15, footnote 25).

Significantly, none of these sources offers detailed evidence for the assertion of low quality in unrecognised private schools – indeed, the claim is precisely that no quantitative evidence is available. Poorer achievement has been assumed, in part because of the low quality infrastructure in the schools, and because such schools often have untrained and low paid teachers. The 'unrecognised' or 'unregistered' schools are unregulated by the state and therefore because they are not complying with government regulations are perceived to be providing minimal quality. But do these factors make for lower quality in the schools? This research aimed to provide evidence on this important issue.

Our earlier research funded by the British non-profit education services company CfBT, described a case study of a small number of private schools that served low income families in Hyderabad, (Tooley and Dixon, 2003). However, the research left unanswered many questions, including: what is the exact extent of the private unaided sector serving the poor? And, crucially, what is the relative quality of the sector vis-à-vis government schools? Are the unrecognised private schools as bad as some commentators suggest? The current research project, which ran from April 2003 to June 2005, funded by the John Templeton Foundation, (with smaller grants

from the Fordham and Goodrich Foundations), sought to explore in detail answers to these questions. It was a large international project, conducting parallel research in India, Ghana, Nigeria, and Kenya. (Further research is ongoing in other parts of India and China, which will be reported in due course). The research had two major components. Component One conducted a census of all the schools in selected low-income regions, and a survey of inputs to these schools. Component Two focused on a random sample of these schools to compare achievement in government and private schools, and also to gain some understanding of the relative resourcing available to both. This report outlines research under both components under the following headings:

- What is the nature and extent of private education for the poor? (Component 1)
- How did free primary education (FPE) impact on pupil enrolment, particularly in private schools? (Component 1)
- How do private and state schools compare? (Component 1)
- How well do children achieve? (Component 2)
- How well are private schools resourced, and do all pupils pay fees? (Component 2)

Other aspects of the research dealt with the relative satisfaction of parents, pupils and teachers in government and private schools, and with the regulatory environment in each country. These will be reported separately.

2. What is the nature and extent of private education for the poor? Census data

Method

The first component of the research set out to explore the nature and extend of private education in selected low-income areas within Ghana, Nigeria, Kenya and India. All of the chosen countries were rated in the lower half of the Education Performance Index (EPI) (Watkins, 2000, Appendix 1), indicating countries where educational needs were not being met by government systems. Countries were chosen for a mixture of practical and research reasons. We were particularly interested in Kenya, where free primary (elementary) education had just been introduced to much acclaim: how would this impact on private schools for the poor, should they exist? Nigeria was chosen as the country with the largest population in sub-Saharan Africa, whose significance to the continent's future is clear. We had conducted research earlier in Hyderabad, India, were familiar with the terrain and had many contacts in government and the private sector, so it seemed sensible to continue the project there. And because of chance meeting with the Ghanaian Minister of Education at a conference, we were invited to conduct the research in Ghana too.

In India, we followed the usual definition of school management type as being of three kinds: government, private aided and private unaided (see for example Kingdon, 1996). Government schools are 100% funded and managed by some level of government, state or local. Private aided schools are privately managed, but have 100% teacher salaries paid for by government. Other funds are partly paid for by the management and partly by government. Private unaided schools are privately managed and privately funded – with no funding from the state. Private unaided schools are of two types, recognised and unrecognised: the former status indicates that the schools have purportedly met the regulatory requirements of the state. Unrecognised schools are in effect operating in the informal sector of the economy. They have either not applied for recognition, or have not succeeded in gaining recognition from the government.

In the African countries, we distinguished between two types of school, government and private. Government schools receive 100% funding from the state. In some cases they may have private management – many church schools were nationalised in Ghana and Nigeria and operate now as government schools, but with some vestiges of private management under state regulations. (These are rather like the Anglican and Catholic schools in the UK, funded by the state but managed by the church under state regulations). Private schools we defined as those which are both privately managed and privately funded – receiving no state funds. Private schools are again of two types. Registered private schools are those that have, purportedly, met state regulations and been inspected. Unregistered private schools are those that

either have not applied to be registered, or have not (yet) been said to have met these regulations.

In Hyderabad, capital of Andhra Pradesh, India, we covered three zones in the Old City, Bandlaguda, Bhadurpura, and Charminar, with a population of about 800,000 (about 22 percent of Hyderabad's people), covering an area of some 19 square miles. We included only schools that were found in "slums," as determined by the latest available Census and Hyderabad Municipal guides. These were areas that lacked amenities such as indoor plumbing, running water, electricity, and paved roads. (We are also conducting a parallel study in Mahboobnagar, one of the most impoverished rural areas in Andhra Pradesh. This will be reported separately). The team leader was S.V. Gomathi, Director of the Educare Trust.

In Ghana, our research was conducted in association with team leader Dr Isaac Amuah, of the University of Cape Coast and Educational Assessment and Research Centre, Accra. His team chose the Ga district, which surrounds the country's capital city of Accra, classified by the Ghana Statistical Service as a low-income, peri-urban and rural area. The Ghana Poverty Reduction Strategy Document (GA District Planning Coordinating Unit, 2004) suggests that about 70% of the population of 500,000 lives on or below the poverty line. Ga includes poor fishing villages along the coast, subsistence farms inland, as well as large dormitory towns for workers serving the industries and businesses of Accra itself; most of the district lacks basic social amenities such as potable water, sewage systems, electricity and paved roads.

In Lagos State, the research team leader was Dr Olanrewaju Olaniyan, of the Department of Economics at the University of Ibadan, Nigeria's premier university. We randomly selected three local government areas, one from each of the three senatorial districts making up Lagos State: Surulere, Kosofe and Badagry. The first two are urban, the last rural. Using official data, Dr Olaniyan classified areas as 'poor' or 'non-poor', with the former featuring overcrowded housing with poor drainage, poor sanitation and lack of potable water, and prone to occasional flooding. We report on our findings from only those 'poor' areas. We separately looked at the urban shanty town of Makoko, in Mainland local government area, where perhaps 50,000 people live, many housed on houses built on stilts sunk into the Lagos lagoon.

Finally, in Kenya we conducted our censuses in three urban slums of Nairobi (Kibera, Mukuru, and Kawangware). James Shikwati, Director of the Inter-Region Economic Network, Nairobi, was team leader. James Stanfield of the University of Newcastle also provided detailed input into this study and the results here. The picture in each slum was similar; in this report, I describe the findings for Kibera only, reported to be the largest slum in sub-Saharan Africa, with, according to various estimates, anywhere from 500,000 to 800,000 people – crowded into an area of about 630 acres.

Component one of the research aimed to discover the extent of private schools in selected low-income areas, and to compare their inputs with public schools serving the same populations. The first component then provided the population frame for our sample for component two. This aimed to explore the relative achievement of pupils in private and public schools in these low-income areas, by testing a stratified random sample of private and public school students in key subjects and giving questionnaires to pupils, parents, teachers and school managers, to enable the analysis to control for relevant background information.

In the studies in India, Nigeria and Ghana, we were interested in the same major issues –the proportion of children in private and government school, gender issues, the respective teacher-pupil ratios, the age of schools, and management of private schools. In Kenya, because we were only looking at a small sample of government schools, on the periphery of the slums, compared to the large number of private schools within the slums, it was not statistically viable to make similar comparisons. (The same was true of the smaller study in Lagos of Makoko.)

One key caveat must be made about the results that follow. While we are sure that *all* private recognised/registered, private aided and government schools were found, (as these were checked against government lists), we cannot be certain that all unrecognised/unregistered schools were located, as there were no official lists with which to compare our findings. So the data here must be taken as indicating a lower bound on the numbers of private unrecognised/unregistered schools, and hence of private enrolment.

How many schools are there, and what proportion is private?

In each of the three major surveys, government schools were found to be in a minority. In the Hyderabad study, of the 918 schools in the low income areas of the three zones, 320 schools (34.9%) were government, 49 schools (5.3%) private aided, and 549 schools (59.8%) private unaided schools. Of these, the largest number was *unrecognised*, (335 schools or 36.5% of the total), while 214 private unaided schools were *recognised* (23.3% of the total). Hence, not only are government schools in the minority, there are *more unrecognised private unaided schools than there are government schools*.

In Ga, of the 779 schools in Ga, 197 schools (25.3%) were government and the rest – 582 schools (74.7% of the total) – private (unaided) schools. That is, a large majority of schools was private unaided. Of these, the largest number were *registered*, (405 schools or 52.0% of the total), while 177 private unaided schools were *unregistered* (22.7% of the total). Here, there are almost as many *unrecognised private unaided schools than there are government schools*.

In Nigeria, of the 540 schools in the low income areas of the three local government areas, 185 schools (34.3%) were government and the rest – 355 schools (65.7% of the

total) – private unaided schools. That is, a large majority of schools was private. Of these, the largest number were *unregistered*, (233 schools or 43.1% of the total), while 122 private unaided schools were *registered* (22.6% of the total). Hence, there are *more unregistered private unaided schools than there are government schools*.

Table 1 Number and proportion of schools, by management type

	Hyderabad, India		Ga, Ghana		Lagos State, Nigeria	
	Number	%	Number	%	Number	%
Government	320	34.9%	197	25.3%	185	34.3%
Private aided	49	5.3%				
Private unaided unrecognised/ Unregistered	335	36.5%	177	22.7%	122	22.6%
Private unaided recognised/ Registered	214	23.3%	405	52.0%	233	43.1%
Total	918	100.0%	779	100.0%	540	100.0%

Source: Census data

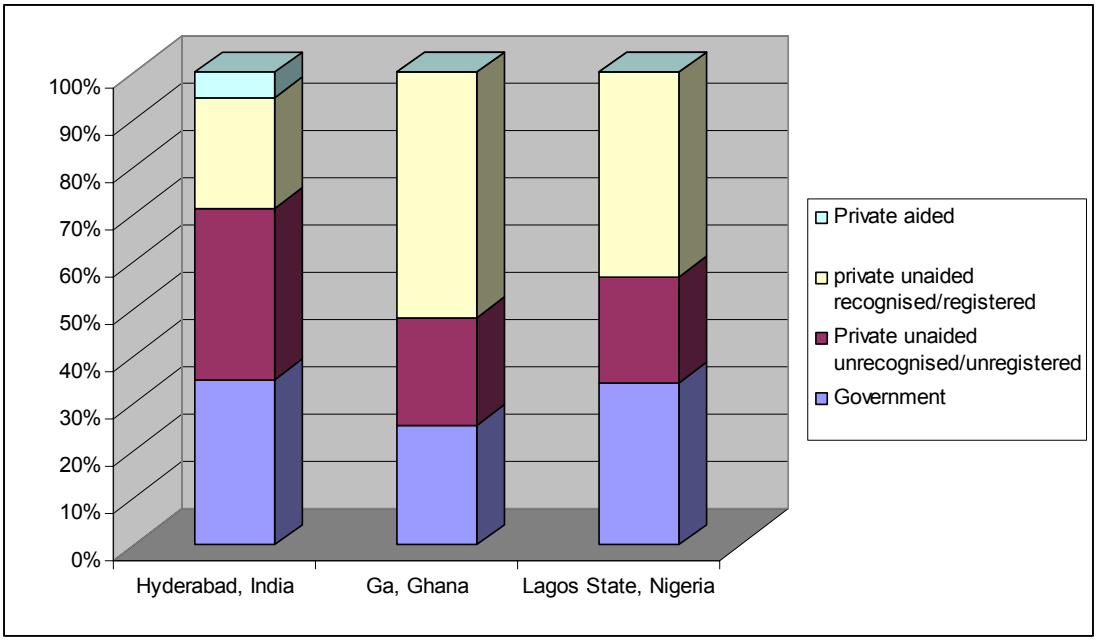


Figure 1 Proportion of schools, by management type

What is the proportion of pupil enrolment in private education?

In each of the three major surveys, a majority of school children was either calculated or estimated to be in the private (unaided) schools.

In Hyderabad, in the 918 schools, 262,075 children attended school. Breaking this down by management type, 24.0% of all children was at government schools, 11.4% at private aided schools, 41.5% of children at recognised private unaided schools, and 23.1% of children at unrecognised private unaided schools. That is, *there is roughly the same number of children in unrecognised private schools as there is in government schools.* In total, 65% of children attend private unaided school – that is, a large majority of the children in the low-income areas of Hyderabad are attending private unaided schools.

In Ga, in the 779 schools, 161,244 children attended school. Breaking this down by management type, 35.6% of all children was at government schools, 49.1% of children at registered private unaided schools, and 15.3% of children at unregistered private unaided schools. In total, 64.4% of children attend private unaided school – that is, a large majority of the children in the low-income areas of Ga are attending private unaided schools.

In Nigeria, our census gave figures only for the private schools, so the numbers given here are estimates. Using the official Lagos State Ministry of Education figures for primary school enrolment in 2002/03 (Lagos State Government, 2004), we found that the proportion of children in government and private registered schools was 38% and 62% respectively (451,798 in government and 737,599 in private registered schools). Our own census figures showed that the proportion of children in private unregistered primary schools was 78% of the number in private registered primary schools. If the proportions in the three local government areas researched were similar to the state as a whole, then we would find a total of 577,024 children in unregistered private schools across the state (i.e., 78% of 737,599). Combining these figures gives the estimated percentage in the three management types across Lagos State. If these estimates are correct, then we suggest that there are about 75% of school children in private schools, with a greater proportion in private unregistered than government schools (33% compared to 26%).

Table 2 Number and proportion of pupil enrolment, by management type

	Hyderabad, India		Ga, Ghana		Lagos State, Nigeria (estimate)	
	Number	%	Number	%	Number	%
Government	62,839	24.0%	57,374	35.6%	451,798	26%
Private aided	29,976	11.4%	0	0.0%	0	0%
Private unaided unrecognised/ unregistered	60,533	23.1%	24,738	15.3%	577,024	33%
Private unaided recognised/ registered	108,727	41.5%	79,132	49.1%	737,599	42%
Total	262,075	100.0%	161,244	100.0%	1,766,421	100%

Source: Census data and Lagos State Government (2004)

We can make some parallel comments from our surveys of the Nairobi slums in Kenya and the Makoko shanty town in Lagos. In the Makoko study, Nigeria, the team found 30 private primary schools (plus one private secondary only and one nursery only school – which are not included in this survey). There were also three government primary schools, situated on the same site on the edge of Makoko. Total enrolment in the 30 private primary schools was reported to be 3,611, while government primary school enrolment was reported as 1,709. In the government schools, it was reported that some children came from outside Makoko, although no proportion was given. In the private schools, all children came from within Makoko. It must also be borne in mind that we didn't necessarily find all private schools within Makoko. Thus we have a lower bound of 68% of all school children in Makoko attending private school, with the real figure likely to be higher than this.

In Kenya, in *Kibera* we found 76 private primary and secondary schools, enrolling 12,132 students (excluding nursery students), together with 59 nursery-only schools. These figures did not include 'non-formal education' (NFE) centres that are also prevalent. In the five government schools that were reported to serve children from Kibera, we found a total of about 9,000 children. It is not known how many of these were from the slum areas, but comments from headteachers suggested about one half. Hence, it is clear that, if children from Kibera only go to either the private schools in the slums, or the government schools on the periphery, then a large majority of school children go to private schools from this slum.

Gender of pupils

From information given by the headteachers or school managers, we calculated the percentage enrolment of girls and boys in Hyderabad and Ga. In Hyderabad, there were more girls than boys in school overall (52.7% compared to 47.3%). The highest proportion of girls was in the government schools (57.2%), compared to 56.9% in private aided, 51.8% in private unaided unrecognised and 49.5% in private unaided

recognised. That is, although the private unaided schools have roughly a 50:50 split between girls and boys, boys are more likely to go to private unaided school.

In Ga, the split was more or less 50:50 in all school types – although the highest percentage of girls was in private unregistered schools. In the smaller scale Nairobi studies, the private schools again showed nearly equal numbers of boys and girls: in Kibera the figures were 6,212 boys (51%) and 5,920 girls (49%), in Mukuru, 3,415 boys (51%) and 3,337 girls (49%), while in Kawangware 3,821 boys and 3,891 girls (50% each).

Table 3 Gender of pupils, by management type

	Hyderabad, India		Ga, Ghana	
	% boys	% girls	% boys	% girls
Government	42.8%	57.2%	50.5%	49.5%
Private aided	43.1%	56.9%	-	-
Private unaided unrecognised/ Unregistered	48.2%	51.8%	49.4%	50.6%
Private unaided recognised/ Registered	50.5%	49.5%	50.2%	49.8%
Total	47.3%	52.7%	50.2%	49.8%

Source: census data

Official versus actual enrolment

The fact that so many children go to private unrecognised/unregistered schools that are entirely 'off the state's radar', has implications for the official figures for number of children out of school – because this means that there are *significantly more children in school than is recorded in official statistics.*

In the 'slum' areas of three zones of Hyderabad, we found 79,851 students in private schools that were not on government lists (around 30% of the total number of school children in those areas). But a recent report from the Azim Premji Foundation[1], using official figures, suggested that for the 35 zones that make up Hyderabad District, 129,000 children are out of school, that is, 15.4% of the total 837,212 school-age children (aged 5 to 15) in Hyderabad. It is likely that many of these children would be in the three zones surveyed – we chose them because they were reportedly some of the poorest. If *all* the out of school children were in the zones surveyed, then this would reduce the number of out of school children in reality to about 49,000 children – the balance being accommodated in private unrecognized schools that are missed in official figures. Instead of 15.4% out of school, the figure would be sharply reduced to only about 6%. More realistically, if some of the officially 'out of school' children are spread over the 32 other zones, then the actual figure of out of school

[1](available from: <http://www.indianngos.com/azimpremjifoundation/andhrapradesh.htm> [Accessed May 2005])

children would be even lower. It is surely easier to bring 6% or a lower percentage of children into school than it is to bring 15%. India's 'education for all' goal may thus be much easier to reach than official sources claim.

Similar calculations can be made for the other countries. For instance, a recent report from the Lagos State Economic Empowerment and Development Strategy (LASEEDS), estimates that 50% of 'school aged' children are out of school (p. 29), although it doesn't state what ages these cover. In the absence of any better estimates, we can use these with our estimated figures given above. If the 50% of children out of school applies to primary enrolment too, then we would have the official figures given in the second column of the table below. This would show a total of 1,189,397 out of school, or 50% of the total. If we add in our estimates of children in the private unregistered schools, however, this total is sharply reduced to 612,373, or 26% of the total school age children. These are indicative figures only, given a number of assumptions that may not be correct – e.g., there may be a lower proportion of primary than secondary age children out of school. Nonetheless, it is worth stating that bringing 26% of children into school may be much easier than bringing 50% into school. Again, Nigeria's task of achieving 'education for all' may be considerably easier than is currently anticipated.

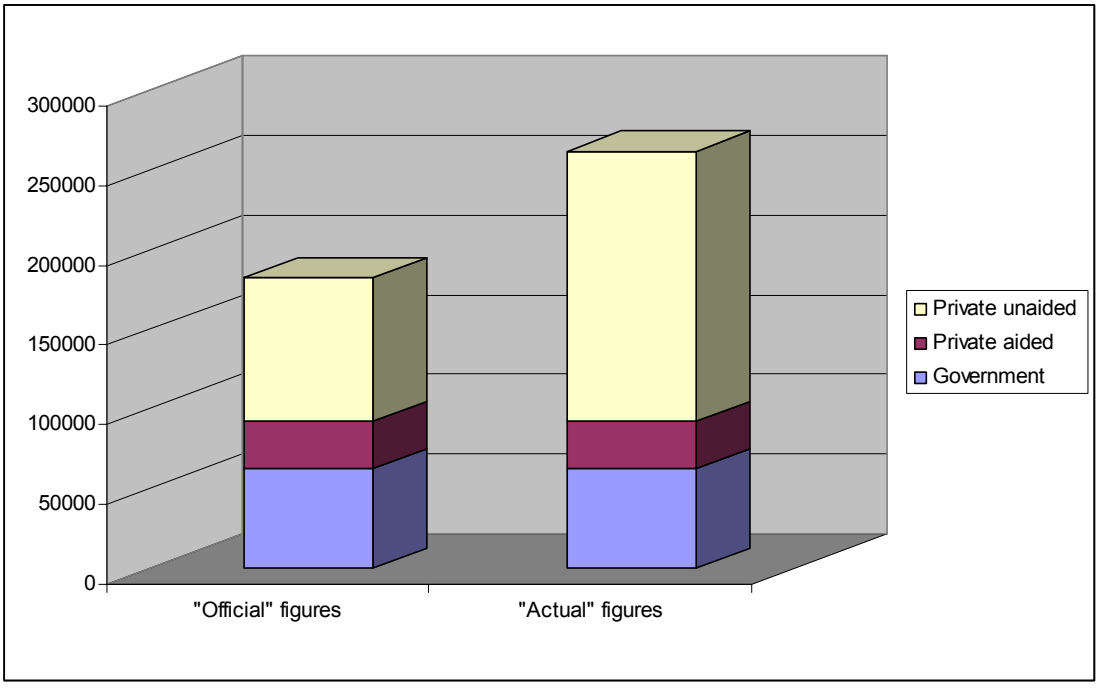


Figure 2 Hyderabad: official versus actual enrolment figures

Table 4 Hyderabad: official and estimated out of school children

	Hyderabad official figures	Worst case scenario (all out of school children in the 3 zones surveyed)
Total number of school aged children	837,212	837,212
Number of children in schools	708,212	788,063
Number of children out of school	129,000	49,149
% of children out of school	15%	6%

Source: Census Data and Azim Premji Foundation (2004)

Table 5 Lagos State: official and estimated out of primary school children

	official figures	our estimates
Government	451798	451798
Private registered	737599	737599
Private unregistered	0	577024
Total	1189397	1766421
Estimate out of school	1189397	612373
Total school age children	2378794	2378794

Source: Census Data and LASEEDS.

Pupil-teacher ratios

From the figures given by the school management for the total number of teachers (including headteacher) and pupils in the school, we can calculate the average pupil-teacher ratios in the different school types in Hyderabad and Ga. In the table below we have also included Kibera, Kenya and Makoko, Nigeria, for purposes of comparison. Clearly, these use smaller numbers of government schools that serve the periphery of the slum areas, so are not statistically sound comparisons. They nevertheless show the kind of choices that may face parents within these slum areas, and so are a useful indicator.

In Hyderabad, the highest pupil-teacher ratio was in the government (42:1) and private aided (43:1) schools. The private unaided unrecognised schools had the lowest (22:1), almost half as low as the government and aided schools. Private unaided recognised schools had a pupil-teacher ratio of 27:1.

In Ga, the highest ratio was again found in the government schools (29:1), compared to 21:1 and 20:1 in the unregistered and registered private schools respectively. In Makoko, government had the highest (29:1) with private unregistered (15:1) about half this. Kibera, Kenya, had the largest disparity, with a pupil-teacher ratio of 60:1 in the government schools, compared to 21:1 in the private, nearly three times lower.

Table 6 Pupil-teacher ratios, by management type

	Hyderabad, India	Ga, Ghana	Kibera, Kenya	Makoko, Nigeria
Government	42:1	29:1	60:1	29:1
Private aided	43:1	-	-	-
Private unaided unrecognised/ Unregistered	22:1	21:1	21:1	15:1
Private unaided recognised/ Registered	27:1	20:1	-	-
Total	31:1	23:1	-	-

Source: census data

Pupil fees

We asked school managers for their fees, checking these where possible against written fee charges. In Hyderabad, the private unaided schools charge a range of monthly, termly and admission fees. There is a statistically significant difference in the fees charged in unrecognised and recognised schools, with the former consistently lower than the latter, at each level. For example, for 1st grade, mean monthly fees in recognised private unaided schools are Rs. 95.60/- per month, compared to Rs. 68.32/- per month in the unrecognised schools. At 4th grade, the same figures are Rs. 102.55/- compared to Rs. 78.17/-.

In Ga, we found a similar picture. Schools here generally charge only term fees. Unregistered private schools consistently charge lower fees than the private registered schools, at each level. For example, for 1st grade, mean fees in registered private unaided schools are Cedis 175,380 per term, compared to Cedis 101,685 per term in the unregistered schools. At 4th grade, the same figures are Cedis 220,898 compared to Cedis 132,263.

In Nigiera, private schools usually charge term fees. Again, private unregistered schools charge fees that are consistently lower than the registered schools, at each level. For example, for Primary 1 class, mean fees in registered private unaided schools are Naira 4,064 per term, compared to Naira 2,744 in the unregistered schools. At Primary 4, the same figures are 4,362N compared to 2993N.

However, it is worth stating that not all children pay these fees. In all countries surveyed, we found that a considerable number of places were provided free or at reduced rates, e.g., to orphans and children from large families. Findings on this are reported below.

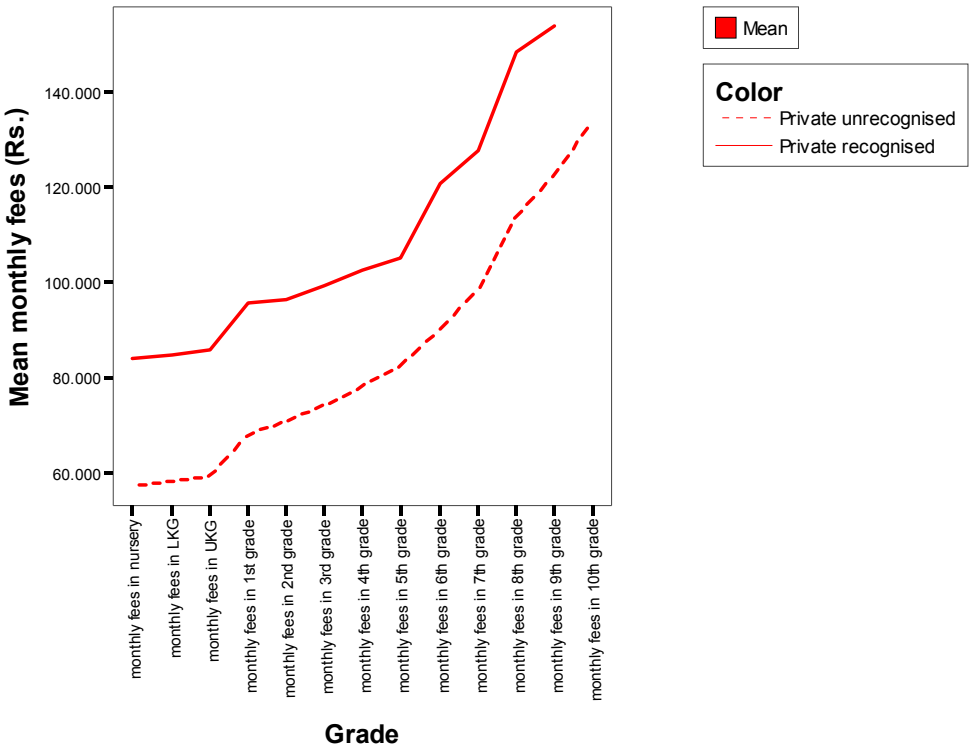


Figure 3 Hyderabad: Mean monthly fees for private unaided recognised and unrecognised schools

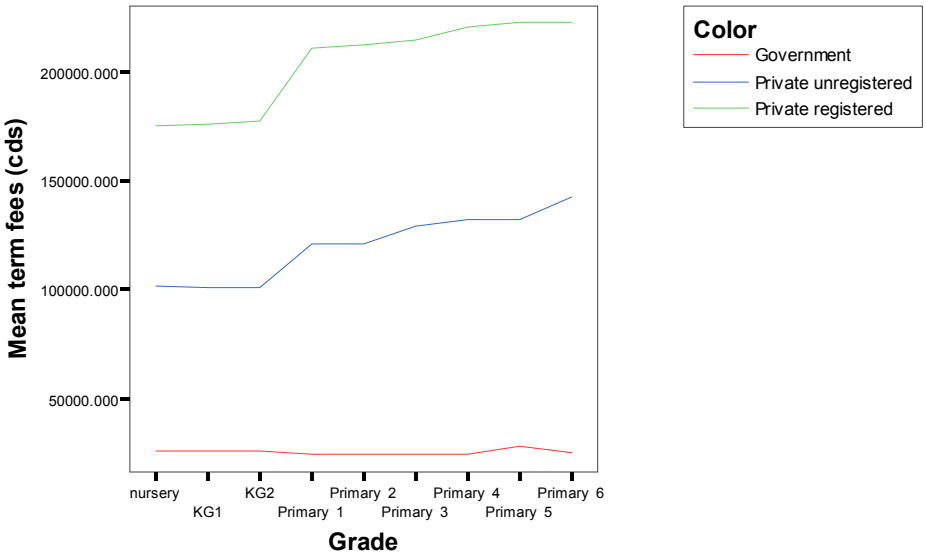


Figure 4 Ga: Mean term fees - private unaided registered and unregistered and government schools

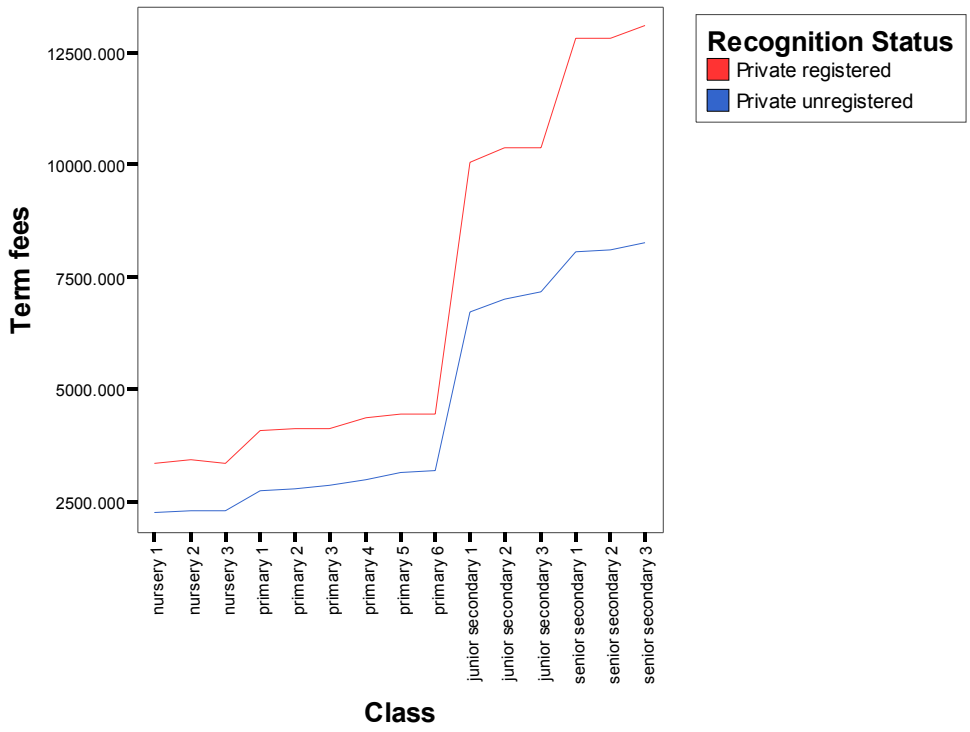


Figure 5 Lagos State: Mean monthly fees for private unaided registered and unregistered schools

When were schools established?

A common assumption (see literature surveyed above) seems to be that private unregistered/unrecognised schools are usually newly established, 'fly-by-nights', that have 'mushroomed' in recent years. Our data suggests that this is not entirely true. For Hyderabad, the mean year of establishment for private unaided unrecognised school was 1996 (the surveys were done in late 2003/early 2004), while private unaided recognised schools was 1986. In Ga, the unregistered schools' mean establishment date was 1998, while in Lagos it was 1996. In the smaller studies of Makoko and Kibera, the corresponding dates were 1996 for both.

Whilst the unrecognised and unregistered schools are certainly newer than their recognised/registered counterparts (which themselves are newer than the government schools), they are certainly not all recently established, as can be seen in the accompanying histograms.

Table 7 Mean date of establishment of schools, by management type

	Hyderabad, India	Ga, Ghana	Lagos State, Nigeria	Makoko, Nigeria	Kibera, Kenya
Government	1978 (306)	1979 (118)	1974 (229)	1984 (2)	1978 (5)
Private aided	1950 (46)	-	-	-	-
Private unaided unrecognised/ unregistered	1996 (320)	1998 (139)	1996 (286)	1996 (29)	1996 (76)
Private unaided recognised/ Registered	1986 (197)	1995 (187)	1990 (221)	-	-
All	1985 (869)	1992 (444)	1988 (736)	1995 (31)	1995 (81)

Source: Census data

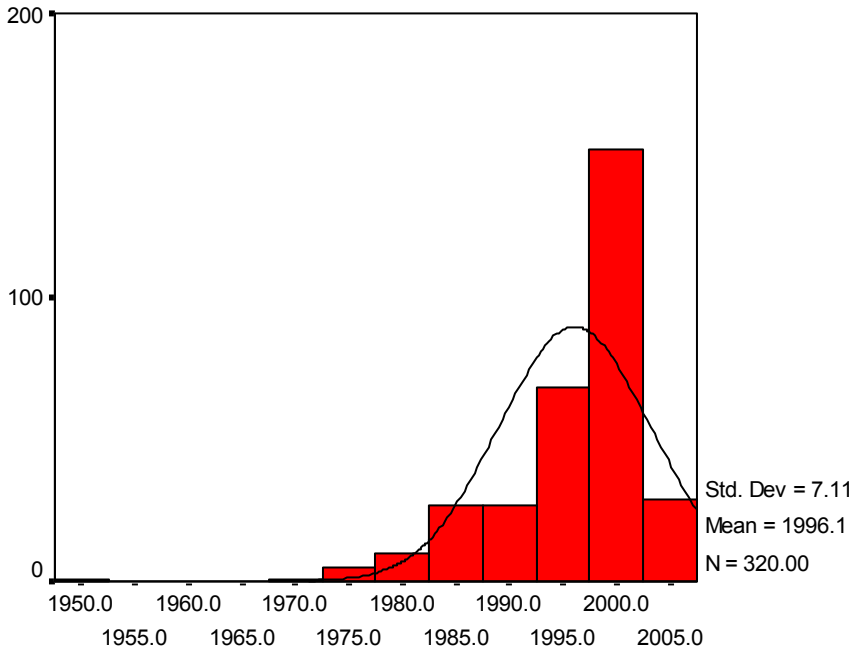
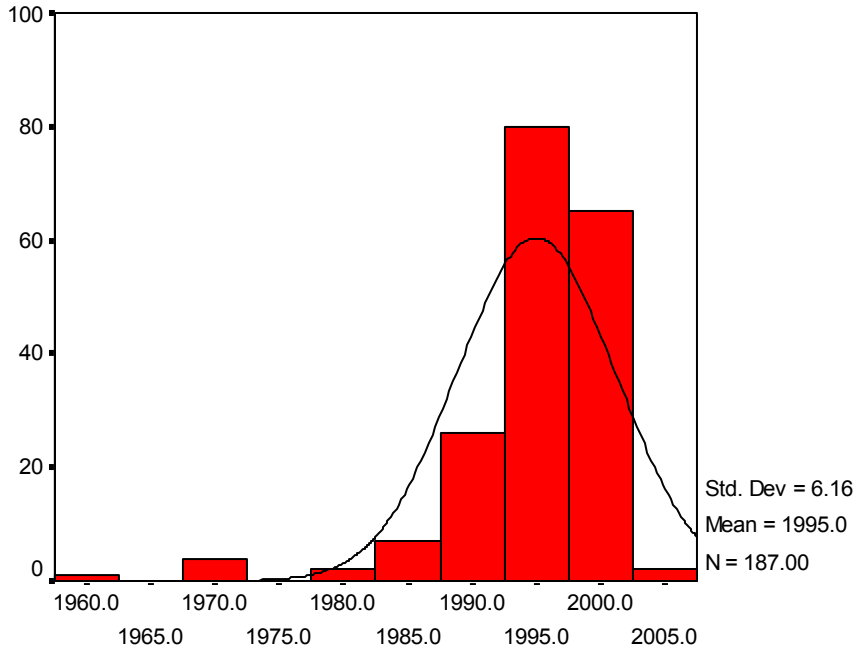
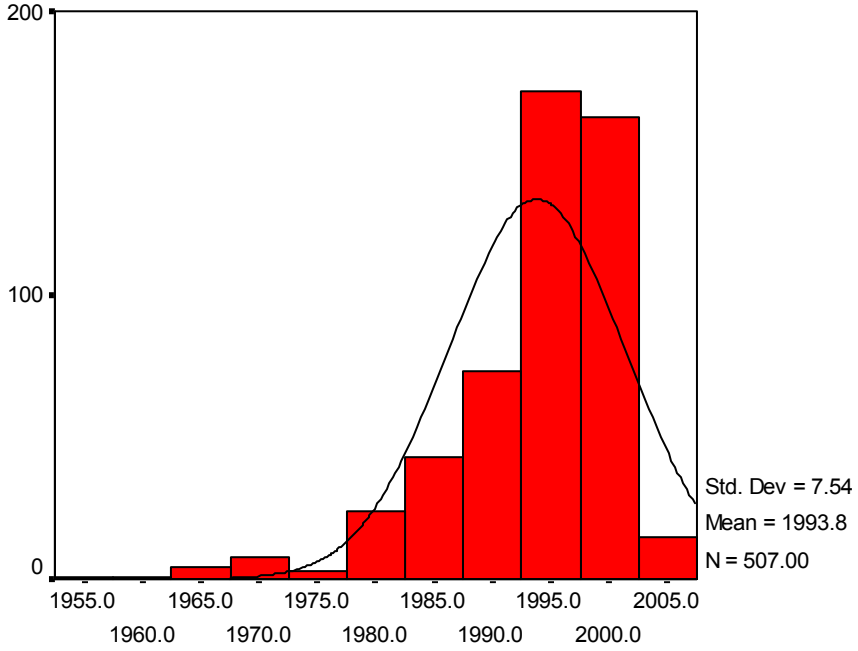


Figure 6 Hyderabad: establishment of private unrecognised schools



Year in which private unregistered school was established

Figure 7 Ga: establishment of private unregistered schools



Year in which private unregistered school was established

Figure 8 Lagos State: establishment of private unregistered schools

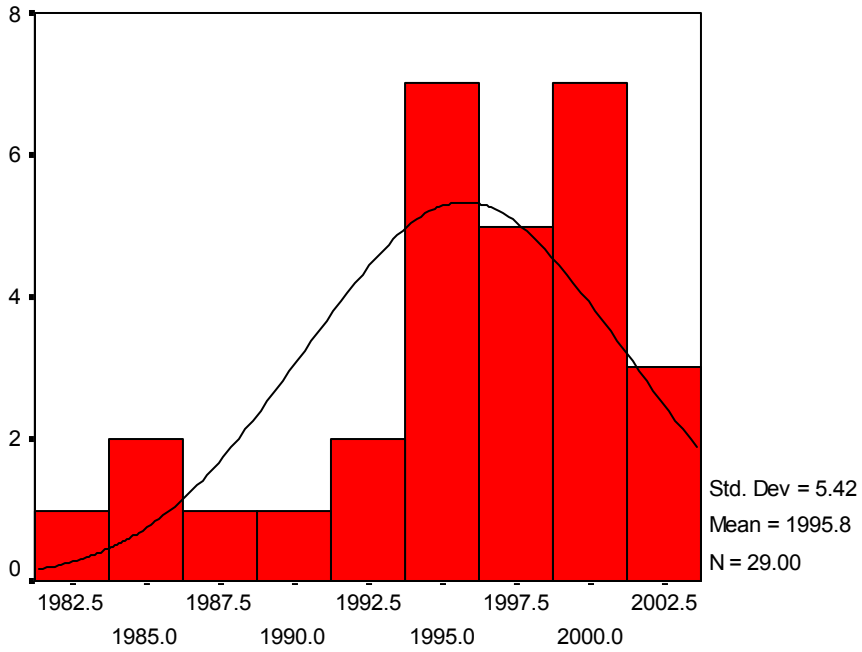


Figure 9 Makoko: establishment of private unregistered schools

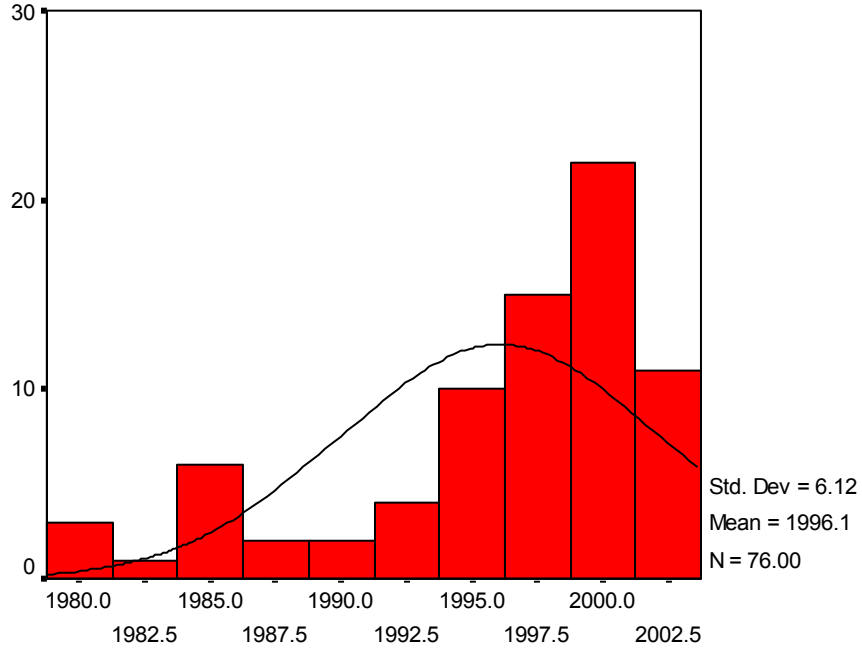


Figure 10 Kibera: establishment of private schools

Who manages the private schools and how are they funded?

It might be thought that private schools in low-income areas would be predominantly managed by philanthropic or religious organisations, and hence in receipt of philanthropic funding. This turns out not to be the case. We asked private school "managers" about the management arrangements for their schools, giving them the (explicitly) mutually-exclusive options of: charitable trust/society or community group, religious organization (church, mosque, etc.), individual proprietor(s), or commercial company. (In Ghana, we combined the first two categories).

In Hyderabad, the results are slightly difficult to interpret, given that the legal position of private schools is to be run by a charitable trust or society. Proprietor-run schools are technically illegal. Where the "managers" ticked *both* this *and* individual proprietor(s), we listed them as the former. However, if they only ticked individual proprietor(s), then we maintained this. For the private recognized schools, it is interesting that 25 (13%) listed either individual proprietor or commercial company – which may be the way the school manager views the situation, even though there is likely to be a charitable trust officially running the school for recognition purposes. However, for the unrecognized schools, there will not the be the same legal inhibition, so it is likely that the 105 schools (34% of unrecognized schools) that claim they are run by an individual proprietor really are. Note also the tiny number of schools that are run by religious organizations.

Given this difficulty of interpretation, we asked a follow-up question: did the school receive any funds in addition to school fees, to help in recurrent or capital expenditure, or both? While half of the private aided schools, as expected, reported that they did receive financial assistance from elsewhere, the vast majority of the private unaided unrecognised (91%) and private unaided recognised schools (86%) reported receiving no outside funding at all. The income of the vast majority of these schools is solely made up of the school fees indicated in the earlier section. For the minority that do receive outside funding, follow-up conversations with a small number of school managers indicate that some of these funds might come from relatives, especially in the Gulf area, or indeed that some may have misunderstood the question, indicating when they have taken bank or chit fund loans, or invested their own personal resources, to finance their school, rather than referring to genuine donations from outside.

In Africa, there is not the same legal prohibition. In both Ga and Lagos State, it was interesting that the vast majority (from 82% to 93%) of both types of private school reported that they were run by a proprietor or proprietors, with unregistered schools showing the largest proportion. The funding of these schools was thus predominantly from school fees, not outside philanthropy. Again, religious and charitable organisations were only a small minority of management.

Table 8 Management of private schools

	Hyderabad, India		Ga, Ghana		Lagos State, Nigeria	
	Private unrec.	Private rec.	Private reg.	Private unreg.	Private reg.	Private unreg.
Charitable trust/society or community group	65.3%	86.6%			5.2%	4.0%
Religious group (church, mosque)	1.0%	0.5%	18.4%	7.3%	8.2%	3.0%
Individual proprietor or proprietors	33.8%	12.4%	81.6%	92.7%	86.6%	91.9%
commercial company	0.0%	0.5%	0.0%	0.0%	0.0%	1.0%

Source: Census data. Totals may not add to 100% due to rounding

3. How did free primary education (FPE) impact on enrolment?

The Census survey in Kenya took place about 10 months after the Kenyan government abolished fees in all government primary schools in January 2003, introducing free primary education (FPE). This provided a further interesting dimension of research in the Kenyan survey, to explore the impact this had on pupil enrolment in the slum areas. Official figures suggest a huge increase in enrolment in government schools, including those serving the slum areas. However, no-one apparently has investigated the impact on *private school enrolment* in poor areas. We explored this by asking owners and managers of schools with primary sections how FPE had affected their *primary school* enrolment (i.e., excluding secondary and nursery students for schools that catered for these streams as well). In Kibera, 69 of the 76 schools catered for primary school students. However, it turned out that one further school, currently catering for nursery and secondary sections only, previously had a primary section that had now closed as a result of FPE. Hence we give figures for the impact on 70 schools from Kibera. We also asked the same question of the government primary schools that we were told served the slums of Kibera, Kawangware and Mukuru. These figures enable us to make rough estimates of the net impact of FPE. The figures we found challenge the official picture of dramatically increased enrolment.

It is true that FPE had dramatically increased the number of students enrolled in all five government primary schools reportedly serving Kibera. The total increase reported was 3,296 students. However, of the 70 private schools catering (or previously catering) for primary students, FPE was reported to have led to a net decline in enrolment in 48 schools (69%), while the remaining reported that either the student numbers had stayed roughly the same (14 schools, or 20%), or that the school enrolment had experienced a net *increase* in student numbers since the introduction of FPE (8 schools, or 12%).

Of the 48 schools reporting a net decline in their enrolment, 41 had suffered a straightforward decrease since the introduction of FPE. For some of these schools, the decrease was dramatic – with the largest reporting a 93% decline. The total number of children leaving these 41 private schools was reported to be 6,010, with the average decrease per school being 147 children (47%).

The remaining seven schools that had suffered a net decline reported that, while their enrolment had initially declined, it was now increasing to a certain extent – either, it was reported, because some parents who had removed their children to the government schools were now returning their children to the private school, or others were moving their children from private schools that had closed. The total net decline in these schools was reported to be 939.

Finally, eight of the private schools reported that their enrolment figures had increased since the introduction of FPE. The net increase in students in these nine private schools was 378 students.

From these figures, we can compute the total net decrease in the number of students reported to be enrolled in the private schools in Kibera, as in the table below. Here we can see that the net decrease in the enrolment in the 70 schools was 6,571, or 94 per school.

Table 9 Kibera net decline in private school enrolment

Category	Increase/decrease in enrolment
Private - Straight decline in enrolment	-6010
Private – initial decline then increase	-939
Private – increase in enrolment	+378
Total increase/decrease	-6571
Average increase/decrease in 70 schools	-94

Source: census data

Closing private schools

This does not end the discussion of the impact on the private sector of FPE. For we also asked school owners and managers whether they knew of any private primary schools (or schools serving primary students) that had closed directly as an impact of the new policy. We asked schools for the *specific name* of the school that had closed, to ensure that the school owners and managers were not simply guessing a figure here. We then followed up in Kibera, using the networks of the Kenya Non-Formal Schools Association, sending researchers to find and interview the manager/proprietor of the previously existing school, to ascertain the reason for closure and the number of pupils that had been enrolled when the school closed.

The total number of schools reported to us by existing school managers to have closed since FPE was 33. We found the previous managers of 32 of these, but in the course of this research, also uncovered a further three private schools that had closed since FPE. Of these 35 private schools, the ex-managers reported that 25 of them had closed specifically because of FPE. Two of the schools had actually relocated and were still open. Six of the schools had closed because of demolition work due to the building of a by-pass through the slum, while the managers of two admitted it was either mismanagement or the lack of funds (unconnected with FPE) that had forced the closure of their school. In total, 5,691 children had been in these schools at closure, with 4,600 in schools that had closed specifically because of the impact of FPE.

Some of the previous school owners gave us the following comments as to what happened to children when they left their schools:

> *Some children joined other private schools and city council schools but others are still at home because of limited chances in the present schools.* William Onyando, Upendo Primary
>
> *A few went to local private schools, a few to city council schools and the majority are not in school at all.* Mrs Jacinta Josephine Kioko, Sacred Heart Primary
>
> *The needy children remained just at their homes; others went to the local private school and some to the local government*. Stephen Juma Kulisher, Jesus Gospel Church School.
>
> *Some joined the city council schools but others did not since they were orphaned and needed special treatment which the city council schools do not provide.* Oscar Osir, Sinai Academy
>
> *The majority of pupils prefer private schools as the offer quality education, this made the majority of these pupils (58) to join the local private schools while the other 30 pupils have not yet registered with any other school*. Anonymous.

The fact that some of the displaced children enrolled at other private schools in Kibera helps to explain why some of the remaining private schools experienced an increase in enrolment, or an initial decrease followed by an increase, as above. However, clearly this cannot account for all the missing children. Some of the above quotes suggest (although by no means confirm) that those worst effected by the introduction of FPE were perhaps those orphans previously enjoying free education at a local private school. Following the closure of these schools, such children may be unable to find another free place at another local private school or be able to afford the hidden costs of enrolling at a local government school. It may also be the case that all local government schools are already over subscribed, therefore reducing the options even further – as such children would not be able to afford the transport costs to schools further away, or would not have guardians able to find such places for them.

Net impact of FPE on pupil enrolment

Taking all these figures together, the table below gives an estimate of the net decrease in the number of students enrolled from Kibera as a result of the introduction of FPE. In private schools as a whole, our estimate is that enrolment *has declined by 11,171* since the introduction of FPE. Set against the increase in government schools of 3,296, this would give a *net decrease* in enrolment of primary school children since the introduction of FPE in Kibera of 7,875. That is – it is worth spelling this out – *we estimate that there could be about 8,000 fewer students from Kibera enrolled in primary schools than before FPE was introduced.* As a percentage of students currently enrolled in primary schools (government and private), this is nearly 40%.

Clearly, there are at least three reasons why this figure may be inaccurate. First, the figures are based on the reported increase and decline by school owners and managers, and these may be incorrect. The private schools may have felt there was an incentive to exaggerate their decline in student numbers to the researchers, possibly because they felt this would lead to financial or other assistance. Second, we are assuming that all children who have left the Kibera private primary schools could only have gone to the five primary government schools bordering Kibera, but they may well have looked at other government schools, once those bordering Kibera reached capacity. Third, clearly some of the students who have left closing private schools could then have enrolled in the still functioning private schools, so there may be a small amount of double counting – small, because the net increase in primary enrolment was reported to be less than 400.

It may also be wondered why the private schools are closing, if so few, comparatively speaking, children are transferring to the government schools. However, if many private schools are running on a very tight budget, the loss of only a very small number of children may make them unviable, and hence force them to close. (Certainly many private schools still running reported to us that they were finding it increasingly difficult to cope with decreasing numbers, and several thought that they would be forced out of business soon unless something drastic happened). Indeed, interviews with parents gave the impression that it was the more prosperous slum dwellers who were able to afford to send their children to government schools, given their 'hidden costs' – our quantitative research (below) suggested that this may be true . But more prosperous parents may also have been the ones who could afford to pay fees on time in the private schools – something that the majority of parents reported not being able to do – and so their loss may have been particularly acute for the school managers.

If one private school closed, why wouldn't parents send their children to another private school, as there are still plenty of these available? This requires further research to explore. However, it could be hypothesised that some parents may now be reluctant to pay for tuition, given that it is now supposed to be free. (Certainly some of the parental interviews suggested that parents knew of such an attitude). Or a parent may have been very happy with a particular private school, but, once that closed, didn't feel inclined to risk another one – for that too might close for the same reason – so instead chose to send their children out to work, or back to the rural areas.

Nevertheless, whatever the objection to the precise figures, they clearly point to the need for a more sober assessment of the net impact of FPE on enrolment, taking into account enrolment in *private* schools for the poor *as well as* the more customary exercise in examining government school figures only. Even if we have over-estimated the number of children dropping out of private schools by a factor of 4,

say, this still would mean that the net impact of FPE was precisely the same number of children enrolled in primary school – only that some had transferred from private to government.

Table 10 Net increase/decrease in enrolment in Kibera since FPE, 2003

Category	Increase/decrease in enrolment
Private – Straight decline in enrolment	-6010
Private – initial decline then increase	-939
Private – increase in enrolment	378
Private - schools closing as a result of FPE	-4600
Subtotal – net increase/decrease in private schools	*-11851*
Government – increase in enrolment	3296
TOTAL net increase/decrease in enrolment	**-8555**

Source: census data

4. How do private and state schools compare? Survey of Inputs

The Survey of Inputs was conducted over the same period as the Census, by the same research team. When the researcher visited unannounced and without prior notice to conduct the interview, he or she asked to tour the school. On this school tour, the researcher made a note of the facilities available in the school against a template of facilities, as listed below. He or she was also asked to visit the designated primary school classroom that would feature in the survey of achievement below (Class 4, 5 or 6 depending on country), during a time when teaching should have been taking place (e.g., if there was an assembly or break period, the researcher waited until after these had finished). The researchers were trained in the use of the observation schedule, using simulations in the office, checked for reliability against fieldwork.

In **Hyderabad,** for all facilities, the private schools had an advantage over the government schools – and this included the unrecognised schools. When researchers called unannounced on the classrooms, 98% of teachers were teaching in the private recognised schools, compared with 91% in the unrecognised and 75% in the government. Teacher absenteeism was also highest in the government schools. On *every* input, including the provision of blackboards, playgrounds (although these may not have satisfied the legal requirement for playground size), desks, drinking water, toilets and separate toilets for boys and girls, both types of private schools – recognised and unrecognised – were superior to the government schools. For instance, while 78% of the government schools had blackboards in every classroom, the figures were 96% and 94% for private recognised and unrecognised schools respectively. In only half the government schools (52%) were toilets provided (or functioning) for children, compared to 100% and 97% of the recognised and unrecognised private schools respectively.

In the **Ga** survey, when researchers called unannounced on the classroom of the Grade 5 teacher during a teaching period, teaching commitment was highest in the private schools: 75% of teachers in registered private, 66% in unregistered private but only 57% of teachers in government schools were teaching. Teacher absenteeism was also highest in the government schools. On one indicator, there were no significant differences between school types, with roughly half of all school types having chairs in every classroom. On other indicators, government schools came out best. For example, desks for children – with 97% of government schools having these for all children, compared to 92% of registered and only 61% of unregistered private schools. (Many private unregistered schools used a wooden combined bench and desk top, which was not classified by the researchers as 'desks'). On other indicators there was little difference between the three management types – e.g., blackboards were available in all classes in 98% registered, 92% unregistered and 98% government schools. Finally, regarding some inputs, private schools came out best –

e.g., drinking water was available in only 54% of government schools, but 63% and 87% of private unregistered and registered schools respectively.

Finally, in **Lagos, Nigeria**, in terms of teaching activity, the private schools were markedly superior to the government schools, with 88% and 87% teaching in the registered and unregistered private schools, compared to only 67% in the government schools. There was no significant difference between school types in the provision of blackboards, desks and chairs. Private schools, however, had superiority in the provision of drinking water (provided in 47% of government, but 73% of registered and 48% of unregistered private schools), fans (available in 63% of registered and 38% of unregistered private schools, but only 12% of government schools), tape recorders for teaching purposes (available in 31% of registered and 14% of unregistered private schools, but only 2% of government schools), and electric lights in the classrooms (87% and 58% of private registered and unregistered schools respectively, but only 33% in government schools). Government schools had superiority in playground provision (available in 92% of government schools, but only 81% of private registered and only 60% of private unregistered schools). The provision of toilets and libraries showed government superiority over unregistered but not registered schools, with 87% of government schools providing toilets, compared to 79% of unregistered and 99% of registered private schools. Libraries were provided in 41% of government schools, but only 31% of unregistered private schools, with registered private schools better than both, (75% providing libraries).

Table 11 Teacher activity of Grade 4/5 teacher, by % in each school type, in three surveys

	Activity of teacher	Hyderabad, India (a)	Ga, Ghana (b)	Lagos, Nigeria (c)
Private–recognised/registered	Teaching	97.5%	75.0%	87.9%
	Non-teaching	2.0%	19.8%	11.1%
	Absent	0.5%	5.2%	1.0%
Private–unrecognised/unregistered	Teaching	90.5%	66.4%	87.0%
	Non-teaching	5.5%	24.4%	12.0%
	Absent	4.0%	9.2%	1.1%
Government	Teaching	74.6%	56.7%	67.3%
	Non-teaching	19.7%	28.3%	24.5%
	Absent	5.7%	15.0%	8.2%

(a) Note: $\chi^2 = 70.069$, Significant, $p<0.001$, (b) Note: $\chi^2 = 15.026$, Significant, $p<0.01$, df=4,
(c) $\chi^2 = 25.691$, Significant, $p<0.001$
Source: Survey of Inputs data

Table 12 Availability of drinking water, by % in each school type, in four surveys

	Drinking water availability	Hyderabad, India (a)	Ga, Ghana (b)	Lagos, Nigeria (c)
Private recognised/registered	Available	99.5%	87.4%	72.5%
	Unavailable	0.5%	12.6%	27.5%
Private unrecognised/unregistered	Available	96%	62.5%	48.3%
	Unavailable	4%	37.5%	51.7%
Government	Available	57.5%	54.1%	47.4%
	Unavailable	42.5%	45.9%	52.6%

(a) Note: χ^2 = 215.023, df=2, Significant, p<0.001, (b) χ^2 = 50.358, df=2, Significant, p<0.001, (c) χ^2 = 17.173, df=2, Significant, p<0.001, Source: Survey of Inputs data

Table 13 Availability of blackboards, by % in each school type, in four surveys

	Blackboard availability	Hyderabad, India (a)	Ga, Ghana (b)	Lagos, Nigeria (c)
Private recognised/registered	Available	96.4%	98.2%	100%
	Unavailable	3.6%	1.8%	0%
Private unrecognised/unregistered	Available	93.6%	92.1%	99%
	Unavailable	6.4%	7.9%	1%
Government	Available	78.1%	97.9%	100%
	Unavailable	21.9%	2.1%	0%

(a) Note: χ^2 = 53.617, df=2, Significant, p<0.001, (b) χ^2 = 10.265, df=2, Significant, p<0.01, (c) χ^2 = 2.748, df=2, Not Significant, p>0.05, Source: Survey of Inputs data

Table 14 Availability of Desks in every classroom

	Desk in every classroom	Hyderabad, India (a)	Ga, Ghana (b)	Lagos, Nigeria (c)
Private recognised/registered	Available	63.3%	92.2%	99.1%
	Unavailable	36.7%	7.8%	0.9%
Private unrecognised/unregistered	Available	31.3%	60.9%	96.6%
	Unavailable	68.7%	39.1%	3.4%
Government	Available	1.9%	97.2%	99.4%
	Unavailable	98.1%	2.8%	0.6%

(a) Note: χ^2 = 230.453, df=2, Significant, p<0.001, (b) χ^2 = 88.721, df=2, Significant, p<0.001, (c) χ^2 = 4.929, df=2, Not significant, p>0.05, Source: Survey of Inputs data

Table 15 Availability of chairs in every classroom

	Chairs in every classroom	Hyderabad, India (a)	Ga, Ghana (b)	Lagos, Nigeria (c)
Private recognised/registered	Available	81.2%	52.8%	83.5%
	Unavailable	18.8%	47.2%	16.5%
Private unrecognised/unregistered	Available	70.6%	50.0%	85.0%
	Unavailable	29.4%	50.0%	15.0%
Government	Available	7.0%	50.3%	83.2%
	Unavailable	93.0%	49.7%	16.8%

(a) Note: χ^2 = 365.852, df=2 Significant, p<0.001, (b): χ^2 = 0.335, df=2, Not significant, p>0.05, (c) χ^2 = 0.227, df=2, Not significant, p>0.05, Source: Survey of Inputs data

Table 16 Availability of fans in every classroom

	Fans in every classroom	Hyderabad, India (a)	Ga, Ghana (b)	Lagos, Nigeria (c)
Private recognised/registered	Available	57.9%		62.6%
	Unavailable	42.1%		37.4%
Private unrecognised/unregistered	Available	39.3%		38.3%
	Unavailable	60.7%		61.7%
Government	Available	5.7%		12.1%
	Unavailable	94.3%		87.9%

Note: (a) χ^2 = 171.517, df=2, Significant, p<0.001, (b) question not asked, (c) χ^2 =68.573, df=2, Significant, p<0.001, Source: Survey of Inputs data

Table 17 Availability of tape recorders in the school

	Tape recorders	Hyderabad, India (a)	Ga, Ghana (b)	Lagos, Nigeria (c)
Private recognised/registered	Available	53.3%	6.0%	30.8%
	Unavailable	46.7%	94.0%	69.2%
Private unrecognised/unregistered	Available	37.1%	2.2%	13.7%
	Unavailable	62.9%	97.8%	86.3%
Government	Available	5.7%	0.7%	2.3%
	Unavailable	94.3%	99.3%	97.7%

(a) Note: χ^2 = 150.017, df=2, Significant, p<0.001, (b) χ^2 = 8.155, df=2, Significant, p<0.51, (c) χ^2 =32.718, df=2, Significant, p<0.001

Table 18 Availability of electric light in every classroom

	Electric light in every classroom	Hyderabad, India (a)	Ga, Ghana (b)	Lagos, Nigeria (c)
Private recognised/registered	Available	60.2%		86.9%
	Unavailable	39.8%		13.1%
Private unrecognised/unregistered	Available	45.4%		58.1%
	Unavailable	54.6%		41.9%
Government	Available	11.1%		33.3%
	Unavailable	88.9%		66.7%

Note: (a) χ^2 = 147.680, df=2, p<0.001, (b) question not asked; (c) χ^2 =73.905, df=2, Significant, p<0.001, Source: Survey of Inputs data

Table 19 Availability of own playground

	Own Playground	Hyderabad, India (a)	Ga, Ghana (b)	Lagos, Nigeria (c)
Private recognised/registered	Available	52.8%	82.1%	81.1%
	Unavailable	47.2%	17.9%	18.9%
Private unrecognised/unregistered	Available	34.9%	66.4%	60.2%
	Unavailable	65.1%	33.6%	39.8%
Government	Available	39.2%	95.0%	92.4%
	Unavailable	60.8%	5.0%	7.6%

(a) Note: χ^2 = 16.658, df=2, p<0.001, (b) χ^2 =37.448, df=2, Significant, p<0.001 (c) χ^2 = 55.140, df=2, Significant, p<0.001, Source: Survey of Inputs data

Table 20 Availability of toilets for children

	Toilets for children	Hyderabad, India (a)	Ga, Ghana (b)	Lagos, Nigeria (c)
Private recognised/registered	Available	97.4%	90.5%	99.1%
	Unavailable	2.6%	9.5%	0.9%
Private unrecognised/unregistered	Available	96.6%	59.2%	78.9%
	Unavailable	3.4%	40.8%	21.1%
Government	Available	51.9%	62.7%	86.7%
	Unavailable	48.1%	37.3%	13.3%

(a) Note: χ^2 = 249.132, df=2, p<0.001, (b) χ^2 =53.049, df=2, significant, p<0.001, (c) χ^2 =23.198, df=2, Significant, p<0.001, Source: Survey of Inputs data

Table 21 Availability of a library for children

	Library	Hyderabad, India (a)	Ga, Ghana (b)	Lagos, Nigeria (c)
Private recognised/registered	Available	32.7%	26.8%	74.7%
	Unavailable	67.3%	73.2%	25.3%
Private unrecognised/unregistered	Available	10.7%	7.4%	30.7%
	Unavailable	89.3%	92.6%	69.3%
Government	Available	1.0%	7.9%	40.7%
	Unavailable	99.0%	92.1%	59.3%

(a) Note: χ^2 = 114.255, df=2, p<0.001, (b) χ^2 =27.379, df=2, Significant, 0<0.001, (c) χ^2 = 45.790, df=2, Significant, p<0.001, Source: Survey of Inputs data

Table 22 Availability of computers for children

	Computers for children	Hyderabad, India (a)	Ga, Ghana (b)	Lagos, Nigeria (c)
Private recognised/registered	Available	49.7%	37.2%	69.1%
	Unavailable	50.3%	62.8%	30.9%
Private unrecognised/unregistered	Available	13.2%	12.0%	32.6%
	Unavailable	86.8%	88.0%	67.4%
Government	Available	1.6%	3.3%	2.9%
	Unavailable	98.4%	96.7%	97.1%

(a) Note: χ^2 = 201.228, df=2, p<0.001, (b) χ^2 =60.486, df=2, Significant, p<0.001 (c) χ^2 = 115.791, df=2, Significant, p<0.001, Source: Survey of Inputs data

Table 23 Availability of television and/or video for children

	Television and/or video	Hyderabad, India (a)	Ga, Ghana (b)	Lagos, Nigeria (c)
Private recognised/registered	Available	30.3%	8.7%	25.8%
	Unavailable	69.7%	91.3%	74.2%
Private unrecognised/unregistered	Available	4.9%	2.4%	10.1%
	Unavailable	95.1%	97.6%	89.9%
Government	Available	4.8%	0.8%	0.0%
	Unavailable	95.2%	99.2%	100.0%

(a) Note: χ^2 = 99.767, df=2, p<0.001,(b) χ^2 =12.045, df=2, Significant, p<0.01 (c) χ^2 = 35.148, df=2, Significant, p<0.001, Source: Survey of Inputs data

5. How well do children achieve? Survey of Achievement

How do government and private schools compare in terms of pupil achievement? We explored this by examining pupil achievement in primary schools at a single grade (either 4, 5 or 6), using tests in English, mathematics and (in Africa) one other subject, depending on context, together with other cross-sectional data collected from the school and family. This section gives the methodology for all of the studies – the same in each setting – and gives the raw scores found in the study.

Method

Because unrecognised or unregistered private schools are not on any government lists, we used as our population frame in each setting the list of schools in each of the Census studies. The comparisons of achievement studies have been analysed for Hyderabad, India; Ga, Ghana; Lagos State, Nigeria and Nairobi, Kenya. (Further studies are ongoing or being analysed in Delhi, India; Mahboobnagar (rural Andhra Pradesh), India; and Gansu Province, China, which will be reported in due course). In the Indian study, we excluded the small number of private aided schools – these made up, as discussed above, about 5% of the schools in Hyderabad, so were too small in number to be a viable option for most children. In the African studies we included all school types.

A stratified random sample of about between 3,000 to 4,000 students was selected, stratifying the schools into size bands and three management types, and aiming for roughly equal numbers of students in each management type: private unregistered/unrecognised, private registered/recognised, and government. We graded schools in each of the three management types into 21 size bands, with the aim of ensuring all school sizes were represented within the sample. We also aimed to restrict the number of children to be sampled in any one school to 30 – so if classes were larger than this, the first 30 children (15 boys and 15 girls, or the maximum number of either gender if there were fewer than 15) on the register were to be selected for testing. Again, this was to avoid the sample being skewed towards pupils from larger schools. (In the Kenyan case, it was not possible to do this – we were using only a small number of government schools, so we had to have larger samples from these).

Table 24 Schools in stratified random samples, by management type

	Hyderabad, India	Ga, Ghana	Lagos State, Nigeria	Nairobi, Kenya
Government	44 (28.8%)	70 (26.9%)	40 (25.0%)	12 (15.0%)
Private unrecognised/ unregistered	64 (41.8%)	103 (39.6%)	53 (33.1%)	68 (85%)
Private recognised/ registered	45 (29.4%)	87 (33.5%)	67 (41.9%)	
Total	153 (100.0%)	260 (100%)	160 (100.0%)	80 (100.0%)

Questionnaires were prepared by the international team and modified to suit local conditions, exploring variables that other research had found to be significant for achievement and school effectiveness. These questionnaire were for the students, families of the students, teachers and school managers/headteachers. The grade 4 (or 5, or 6) class teacher was selected, but only as a random teacher in the school, not assuming that the particular teacher would necessarily have a huge impact on class achievement.

It was decided that the core curriculum subjects of Mathematics and English would be tested in all studies – English being at least one of the official languages in each country studied. It was decided not to be viable to use public examination scores, as their reliability has been questioned – certainly in India, with suggestions of widespread 'mass cheating, leakage of exam papers, tampering with results, and other unethical practices' (Kingdon, 1996, footnote 8), with indications that this might be the case elsewhere.

Instead, in India, tests in Mathematics and English were adapted from standardised tests constructed by NIIT Ltd, Delhi, adapted with advice from the State Council for Educational Research and Teaching, (SCERT) in Hyderabad. In the African studies we used Mathematics and English tests developed for USAID by the Educational Assessment and Research Centre (EARC), Accra, Ghana. These were modified in discussion with focus groups brought together by the University of Cape Coast (Ghana), the University of Ibadan (Nigeria) and the Inter-region Economic Network, (Kenya), to cater for local needs. A third test was used in the African studies as follows:

- Ghana: a Religious and Moral Education test developed by EARC;
- Nigeria: a test in Social Studies was prepared by educationalists at the University of Ibadan in conjunction with local teachers.
- Kenya: a test in Kiswahili was prepared by the Inter-region Economic Network in conjunction with local teachers and university experts.

All tests were reviewed with panels of subject teachers drawn from private and government schools, to ensure validity, i.e., that they reflected material that should have been known to the appropriate grade children in both private and government schools. The mathematics test used only a minimal amount of language, but this was translated into Urdu and Telugu in Hyderabad, with English instructions alongside these. All tests were trialled with about 80 children chosen equally from private unaided and government schools. The internal consistency reliability of each test was calculated using the Kuder-Richardson 20 (KR20) coefficient, which was high in all cases. In order to have a roughly normal distribution of results, a few questions were omitted, and the modified tests were again retrialled with approximately the same number of children in different schools, and the reliability and distribution checked. None of the trialled children took part in the later tests.

To control for innate ability, all children were tested for their IQ, using the Raven's Standard Progressive Matrices test. This had the advantage that it was symbol- rather than language-based. All researchers were trained over a one-day period in administering the Raven's test, in exactly the format laid out in the test guide. They could explain how to do the test in whatever vernacular language suited the students in question. The aim of the explanation is to ensure that all children understand how to do the test. If they do, then they will get the first five questions correct, and researchers were instructed, as in the test guidelines, to check that these questions were correctly answered and, if not, to explain again to the children the method using the first two questions as exemplars. Any IQ tests that did not have the first five questions correct were discarded in the analysis.

To minimise problems with cheating – which we had realised might be a serious problem even from our trials – we created a test booklet that the three tests in a different order, and distributed these so that children would not be setting next to someone doing the tests in the same order. The Raven's Test, however, had to be done by all the class at the same time. At least two researchers were sent to each class, and were instructed to make sure that no cheating took place between children, and also to ensure that no teacher entered the class at any time to help children. (If there were additional children in the class who were not tested, then these were usually moved to a separate classroom with the teacher). Children's desks or seating arrangements were made so that they were sitting apart from each other. After the Raven's Test, which took a maximum of 45 minutes, children were given a short break and biscuits, and then given the test booklets. The three tests took about 1 hour 30 minutes altogether, and children worked through these at their own pace. They were told that they could move on to the next test in their booklet when they had finished the previous one, but were instructed to do so by the researchers after 30 minutes on each test had elapsed. All children were given a pencil, eraser and ruler, partly to ensure that they had these implements, but also as a reward for doing the tests.

Once the children had finished their tests, they were then given a break for their lunch. In the afternoon, they were then given the student questionnaire to complete. The researchers were on hand to answer any questions about this. At the beginning of the day, the researchers also gave the class teacher and school manager/headteacher their questionnaires to complete. These were then collected by one of the researchers, who sat with them going over questions that had not been answered.

One of the researchers also sat with the teacher and told him or her how to do the IQ test – explaining that, although the children had done this, it was not just a children's test. This was administered in exactly the same fashion as for the students. Finally, children were then given the parent questionnaire to take home to their parents to answer, with the instruction to return it the next day. If they did so, they were told that they would be given some reward, such as a biro pen or certificate of participation. A researcher then visited the next day to collect these. If any children did not return them, or if these were substantially incomplete, researchers visited their homes and interviewed the parents, a process which took up at least one more month.

It was aimed to test children over a five-day period. The researchers that had taken part in the Census of Schools and Survey of Inputs became team leaders, supervising up to 50 student researchers, recruited from local universities, and trained over a two-day period. The international team also supervised the team leaders and visited up to half of the schools taking part in each setting. Researchers were instructed that no tests were to be left behind in the school, or given to any school manager/headteacher, again to minimise the possibilities of cheating.

The collected tests were marked by another group of student researchers, and all data from tests and questionnaires entered into SPSS by the team leaders once the research period had expired. The IQs were normed using Bombay norms published by Delhi psychologists, (there being no available African norms to use).

In all studies except Kenya, the data have been analysed using the Heckman two-stage procedure, to control for the fact that children are not randomly assigned to schools – instead,, other literature and anecdotal evidence (e.g., Kingdon 1996, Dreze and Sen 2002) has suggested that parents are likely to choose private schools for their boys and/or brighter children, and also that wealthier, better educated parents from higher castes are also more likely to choose private over government schools. Once this school choice process is controlled for, the data were subject to statistical techniques that controlled for a rich array of family background, teacher and school level data, including peer-group effects. These results are currently under peer-review and so are not reported in this working paper. However, our results so far indicate that the private school advantage found in the raw scores continues after these background effects are controlled for, and is increased in all subjects in Kenya.

Results: raw test scores and standardised data

For each country, the first table below shows the raw test scores in the subjects. The second table then shows the attainment data standardised to have a mean of zero and a standard deviation of one. These results are shown symbolically in the graphs for Hyderabad and Lagos State only.

The results show a similar pattern of achievement for Hyderabad, Ga and Lagos State, with slightly different results for Nairobi, reflecting the differing circumstances under which the tests were conducted. For the first three studies, private and government schools were all tested that were located in the low-income areas selected. The data revealed that it was the slightly wealthier and better educated of the low-income families that used both kinds of private schools. In the Kenya study, however, the private schools were situated in the slums and served only slum children, whereas the government schools on the slum periphery serve middle class as well as slum children. In this case, the data show that it was poorer and less educated parents within the private schools.

For Hyderabad, mean scores in mathematics were about 22 percentage points and 25 percentage points higher in private unrecognised and recognised schools respectively than in government schools. The advantage was even more pronounced for English.

In Ga, the advantage for both types of private schools was smaller, but still large in terms of standard deviations, with mean maths scores being about 6 and 12 percentage points higher in private unregistered and registered schools respectively than government schools. In English the similar advantage was about 9 and 14 percentage points.

In Lagos State, the mean maths score advantage over government schools was about 15 and 19 percentage points respectively in private registered and unregistered schools, while in English it was 23 and 30 percentage points.

In Kenya, private schools performed at about the same level as government schools in all subjects – which given the different clientele served in each school type is quite remarkable. In maths and Kiswahili, the private schools were slightly better, while in English, the small advantage lay with the government schools. But English is likely to be something that is picked up outside as much as inside school – through discussion with parents, watching television, etc. Any advantage in mathematics is likely to indicate something that can have only arisen from school.

Table 25 Hyderabad – raw scores

Subject		Mean %	SD	Cases
Maths	Government	38.41	26.51	1240
	Private unrecognised	60.78	20.55	1315
	Private recognised	63.38	21.26	1355
	Total	54.59	25.38	3910
English	Government	22.44	20.63	1240
	Private unrecognised	53.64	19.82	1315
	Private recognised	59.48	21.22	1355
	Total	45.77	26.10	3910

Source: Survey of Achievement Data

Figure 11 Hyderabad – Mean raw scores in Maths and English

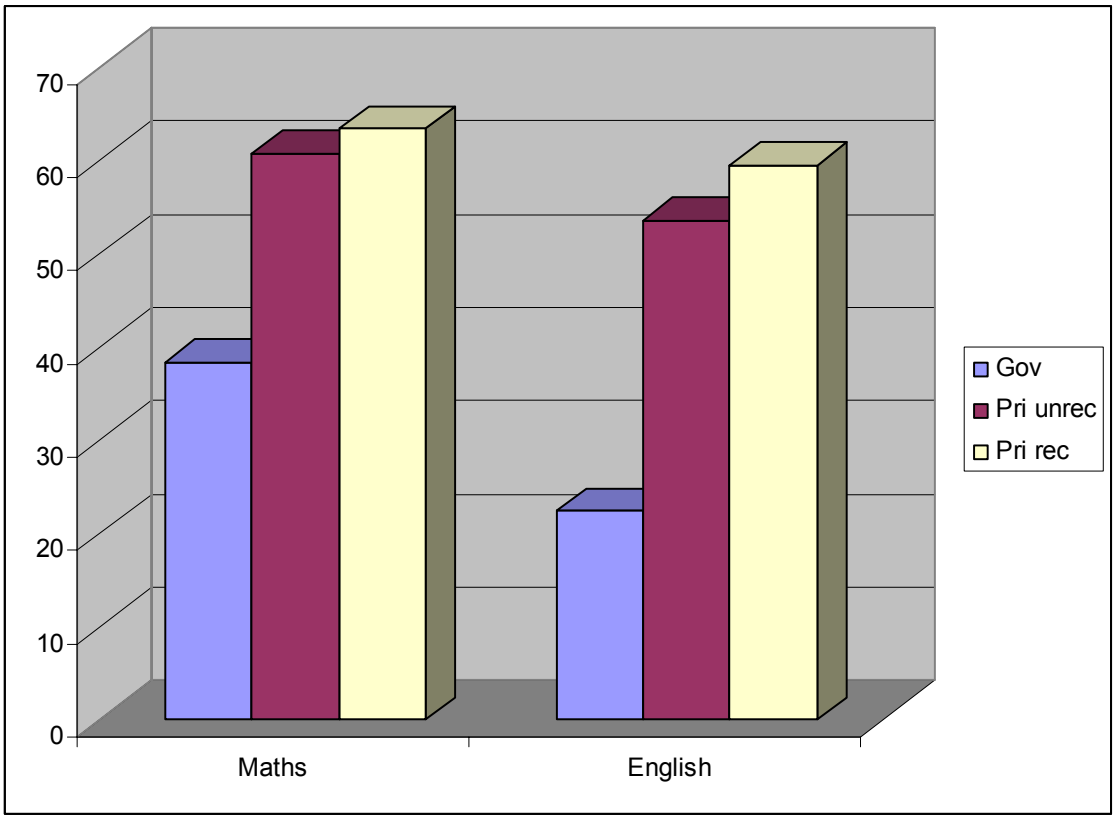


Table 26 Hyderabad – standardised scores

Subject		Mean	SD	Cases
Maths	Government	-0.637	1.044	1240
	Private unrecognised	0.244	0.810	1315
	Private recognised	0.347	0.838	1355
	Total	0.000	1.000	3910
English	Government	-0.893	0.790	1240
	Private unrecognised	0.302	0.759	1315
	Private recognised	0.525	0.813	1355
	Total	0.000	1.000	3910

Source: Survey of Achievement Data

Figure 12 Hyderabad – Mean standardised scores in Maths and English

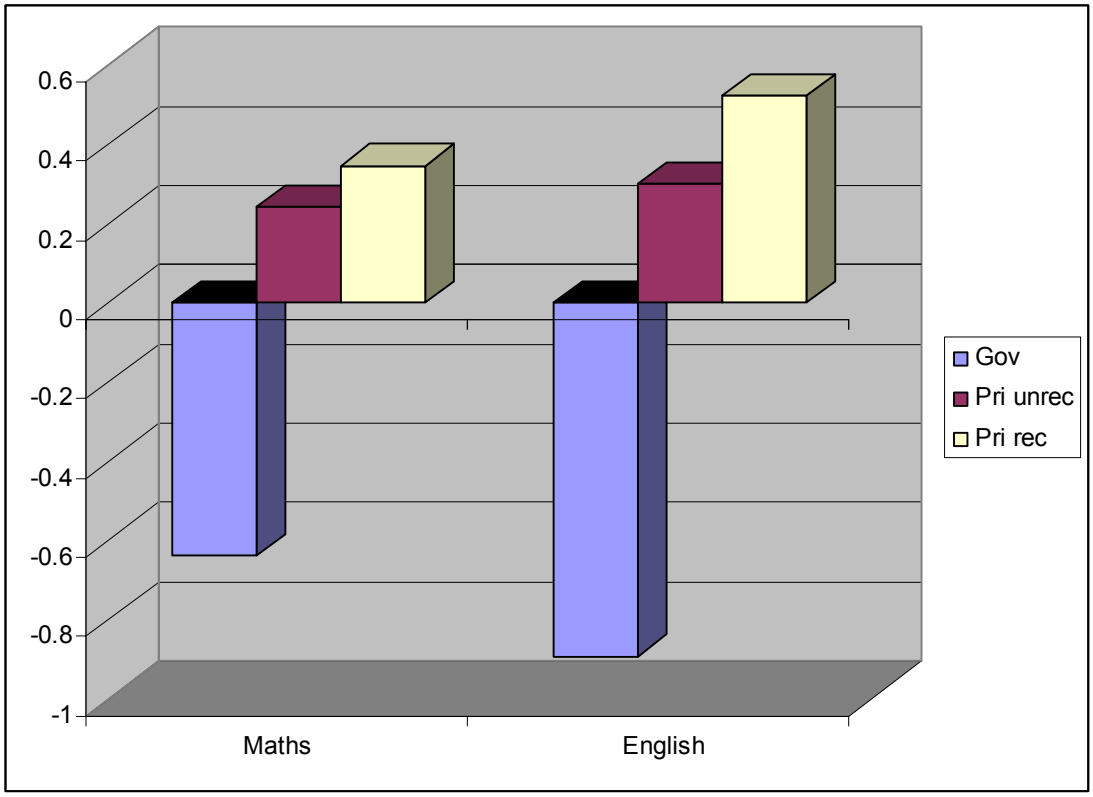


Table 27 Ga, Ghana – raw scores

Subject		Mean %	SD	Cases
Maths	Government	55.60	20.06	1364
	Private unregistered	61.31	19.38	665
	Private registered	67.72	16.90	1521
	Total	61.86	19.42	3550
English	Government	57.15	17.20	1356
	Private unregistered	65.67	17.73	666
	Private registered	71.50	14.83	1517
	Total	64.91	17.56	3539
Religious and moral education	Government	52.65	17.84	1372
	Private unregistered	60.13	16.39	686
	Private registered	63.05	14.46	1536
	Total	58.53	16.86	3594

Source: Survey of Achievement Data

Table 28 Ga, Ghana – standardised scores

Subject		Mean	SD	Cases
Maths	Government	-0.323	1.033	1364
	Private unregistered	-0.028	0.998	665
	Private registered	0.302	0.870	1521
	Total	0.000	1.000	3550
English	Government	-0.441	0.979	1356
	Private unregistered	0.044	1.010	666
	Private registered	0.375	0.845	1517
	Total	0.000	1.000	3539
Religious and moral education	Government	-0.348	1.058	1372
	Private unregistered	0.095	0.972	686
	Private registered	0.269	0.857	1536
	Total	0.000	1.000	3594

Source: Survey of Achievement Data

Table 29 Lagos State, Nigeria - Raw scores

Subject		Mean %	SD	Cases
Maths	Government	41.36	19.10	1108
	Private unregistered	55.92	19.56	1142
	Private registered	60.68	19.23	1045
	Total	52.53	20.97	3295
English	Government	42.18	20.06	1099
	Private unregistered	65.12	21.02	1134
	Private registered	72.06	20.31	1036
	Total	59.61	24.10	3269
Social studies	Government	58.80	22.99	1081
	Private unregistered	71.46	21.32	1091
	Private registered	76.18	18.37	990
	Total	68.61	22.28	3162

Source: Survey of Achievement Data

Figure 13 Lagos State, Nigeria – mean raw scores

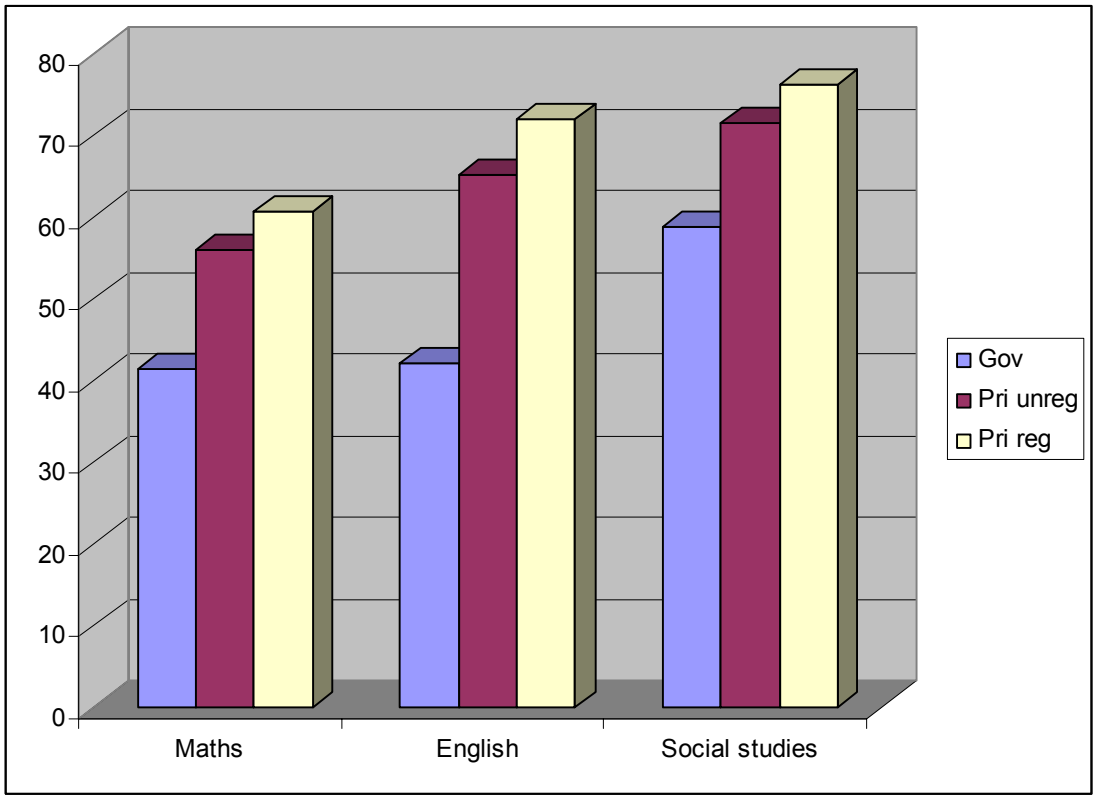


Table 30 Lagos State, Nigeria– standardised scores

Subject		Mean	SD	Cases
Maths	Government	-0.533	0.911	1108
	Private unregistered	0.162	0.933	1142
	Private registered	0.388	0.919	1045
	Total	0.000	1.000	3295
English	Government	-0.723	0.832	1099
	Private unregistered	0.229	0.872	1134
	Private registered	0.517	0.843	1036
	Total	0.000	1.000	3269
Social studies	Government	-0.440	1.031	1081
	Private unregistered	0.128	0.957	1091
	Private registered	0.340	0.824	990
	Total	0.000	1.000	3162

Source: Survey of Achievement Data

Figure 14 Lagos State, Nigeria – mean standardised scores

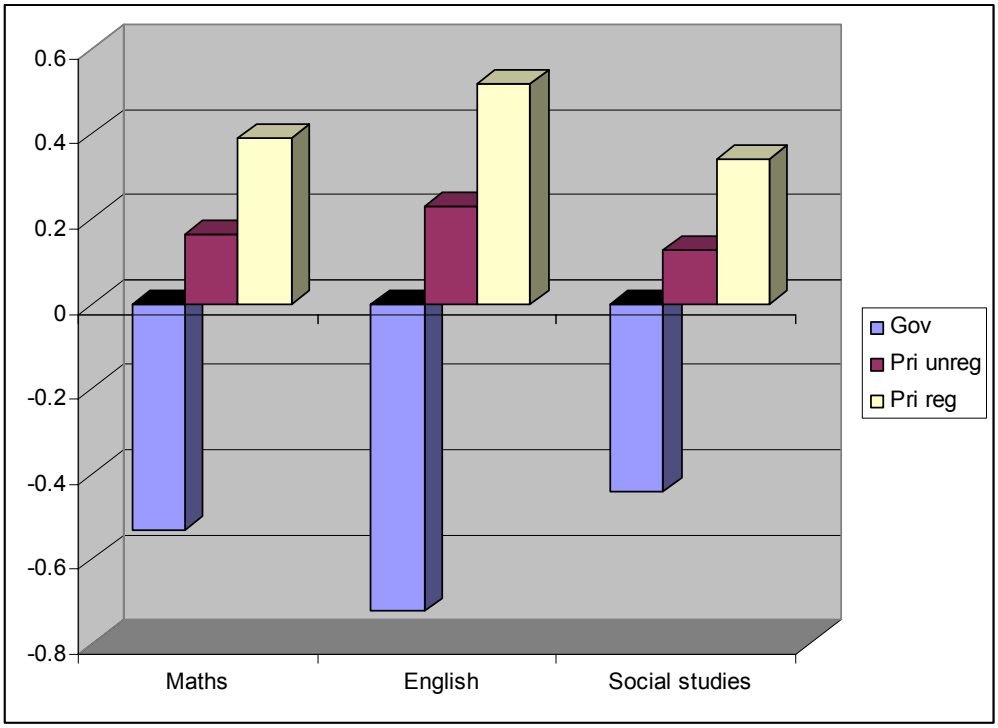


Table 31 Nairobi, Kenya - Raw scores

Subject		Mean %	SD	Cases
Maths	Government	69.81	18.34	1713
	Private	70.72	16.80	1335
	Total	70.24	17.69	3048
English	Government	68.00	16.12	1725
	Private	65.90	16.48	1318
	Total	67.09	16.31	3043
Kiswahili	Government	60.97	15.54	1732
	Private	64.18	15.75	1342
	Total	62.37	15.71	3074

Source: Survey of Achievement Data

Table 32 Nairobi, Kenya – standardised scores

Subject		Mean	SD	Cases
Maths	Government	-0.021	1.037	1713
	Private	0.027	0.950	1335
	Total	0.000	1.000	3048
English	Government	0.056	0.990	1725
	Private	-0.073	1.010	1318
	Total	0.000	1.000	3043
Kiswahili	Government	-0.090	0.989	1732
	Private	0.115	1.002	1342
	Total	0.000	1.000	3074

Source: Survey of Achievement Data

How well are private schools resourced, and do all pupils pay fees?

Teacher salaries

One final assumption that is sometimes encountered concerning private schools is that their success lies in their greater resources. We have seen that, in general, pupil achievement in the private schools serving low-income families is greater than in government schools. Is this achieved because they have greater resources available to them?

We tried to gain data on the total resource available to the different types of school, but school managers in the private schools were understandably wary of divulging too many details to researchers. Work is ongoing to provide a clearer picture in a small number of case study schools. However, we were able to gain at least a partial insight into school resourcing by examining teacher salaries – and these are likely to make up the majority of resources available at the school level. Clearly, these comparisons do not take into account the total level of resourcing that is going into government schools, that includes the large state and local bureaucracies, which will be minimal for private registered and recognised schools (registration and inspection costs only) and non-existent for private unregistered and unrecognised schools.

We obtained data from the teacher questionnaire, which was administered to one of each of the sample schools in Hyderabad, Ga and Lagos State; we gave these to an average of about three teachers in each school in the Nairobi sample. The first table below indicates the average monthly teacher salaries in the first three cases, and the ratio of these salaries to those in the private unrecognised or unregistered schools. In all three cases, the salaries in government schools were over three times higher than in the private unrecognised/unregistered schools – in Hyderabad and Lagos State they were nearly four times the reported salaries. The following table shows the same situation with regard to Nairobi, Kenya, with the additional information of the number of teachers surveyed. Again, the average teacher salaries in the government schools were about three times higher than those in the private schools.

Thus we can say, at least on this indicator that is likely to reflect the overall resourcing available at the school level, government schools have considerably higher levels of resource than their private school counterparts.

Given this huge difference in teacher salaries, it is worth reporting on one finding from the satisfaction surveys that were included as part of the teacher (and parent and pupil) questionnaires for component two, and which will feature in a separate report. On the central issue of salaries – considerably higher in the government than private schools – teachers were in general as satisfied whether they were in private or government schools. The differences were only statistically significant between school types in Ga, Ghana, where government school teachers were most

dissatisfied: 89% of government teachers reported themselves dissatisfied or very dissatisfied with their salaries, compared to 73% in the private unregistered and 52% of private registered teachers. In Hyderabad, the vast majority of teachers were satisfied whatever school type they taught in. In Lagos, teachers divided roughly fifty-fifty in terms of their satisfaction with salary.

Table 33 Monthly average teacher salaries, by management type

	Hyderabad, India		Ga, Ghana		Lagos State, Nigeria	
	Aveerage monthly salaries of full-time teachers (Rs.)	Ratio of salaries to private unrecognised salaries	Average monthly salaries of full-time teachers (Cedis)	Ratio of salaries to private unregistered salaries	Average monthly salaries of full-time teachers (Naira)	Ratio of salaries to private unregistered salaries
Government	4,568	3.86	950,346	3.39	20,369	3.77
Private unaided unrecognised or Unregistered	1,182	1.00	280,333	1.00	5,406	1.00
Private unaided recognised or Registered	1,964	1.66	447,856	1.60	6,321	1.17
Total	2,176	1.84	512,684	1.83	9,072	1.68

Table 34 Nairobi: Monthly average teacher salaries in stratified random schools

	Average monthly salaries of full-time teachers (Ksh.)	Ratio of salaries to private unrecognised salaries	Number of teachers
Government	11,080	2.99	31
Private	3,704	1.00	200
Total	4,694	1.27	231

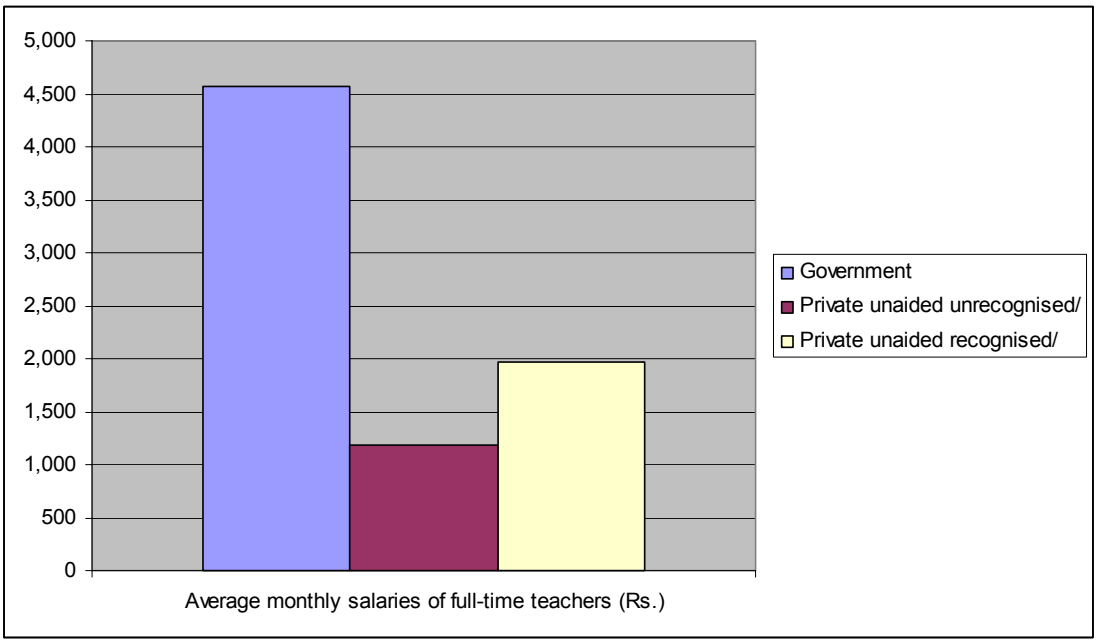


Figure 15 Hyderabad, Average monthly teacher salaries

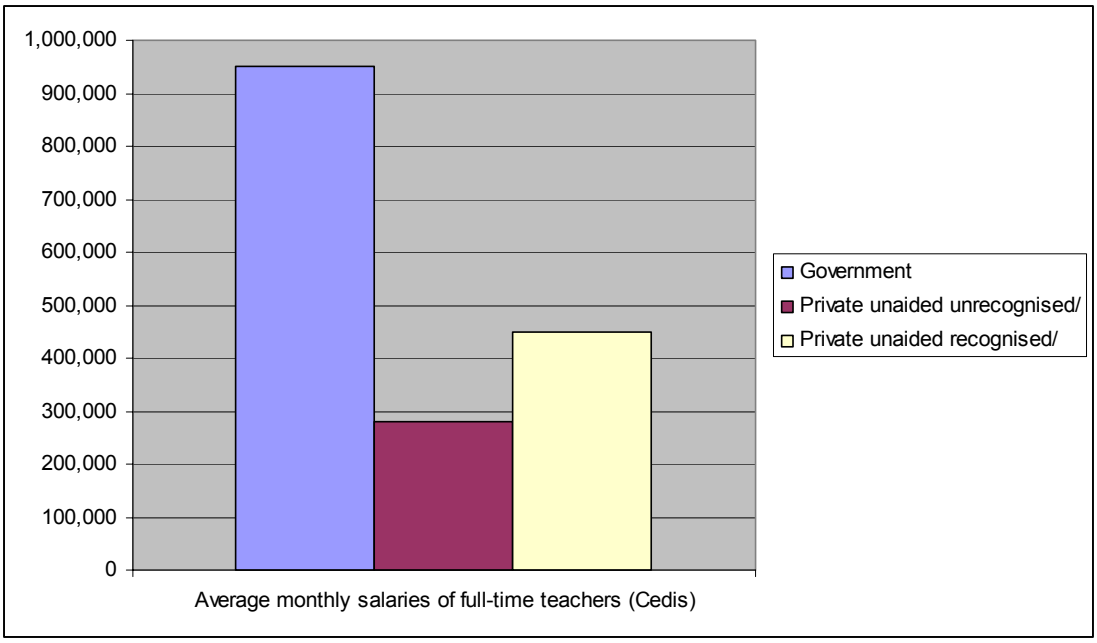


Figure 16 Ga, average monthly teacher salaries

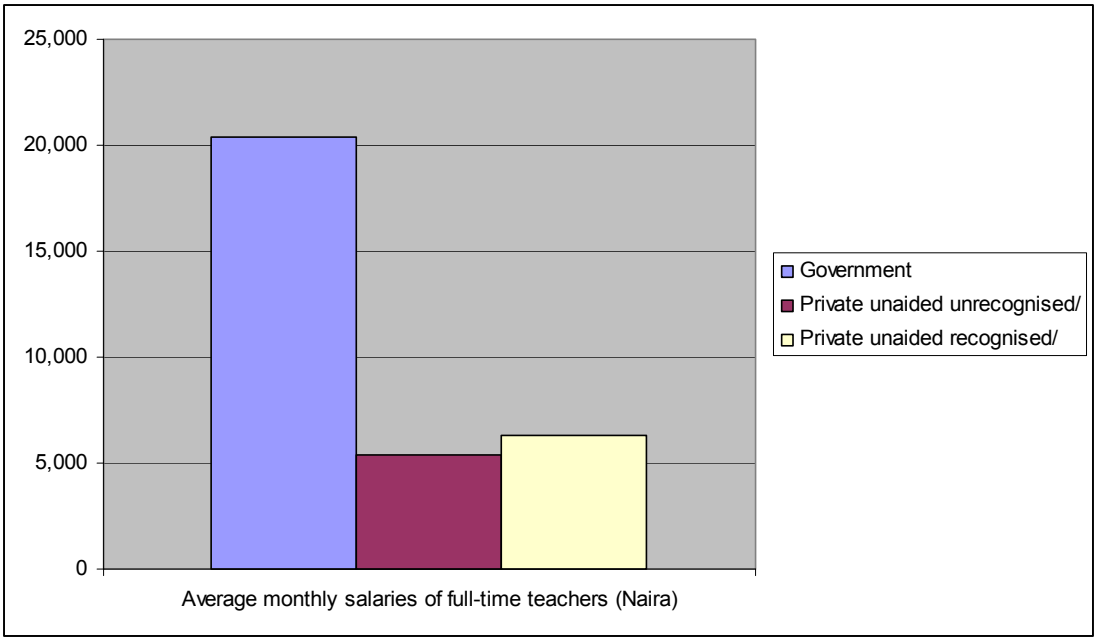


Figure 17 Lagos State, average monthly teacher salaries

Table 35 Teacher satisfaction with salary

	Salary	Hyderabad, India (a)	Ga, Ghana (b)	Lagos, Nigeria (c)
Private recognised or registered	Very satisfied or satisfied	88.1%	48.1%	46.0%
	Dissatisfied or very dissatisfied	11.9%	51.9%	54.0%
Private unrecognised or unregistered	Very satisfied or satisfied	91.9%	26.7%	50.8%
	Dissatisfied or very dissatisfied	8.1%	73.3%	49.2%
Government	Very satisfied or satisfied	88.1%	11.1%	58.8%
	Dissatisfied or very dissatisfied	11.9%	88.9%	41.2%

(a) Note: $\chi^2 = 0.571$, df=2, Not significant, $p>0.05$ (b) $\chi^2 = 14.184$, df=2, Significant, $p<0.01$ (c) $\chi^2 = 1.332$, df=2, Not significant, $p>0.05$, Source: Satisfaction survey

Private school philanthropy

A notable feature of the private unaided schools is that, although they charge fees and are run on business principles, they also offer free or concessionary seats to children. We specifically asked questions about this aspect in the research for Component 2, on the school questionnaire, and triangulated the results with questions on the parents questionnaire, as well as with interviews with a small

number of parents and school managers. The results are reported here for Hyderabad, but a parallel occurrence is taking place in each country. Of the 109 private unaided schools taking part in component two, 99 school managers gave information about their number of free places, while 86 gave information about concessionary places.

Of schools giving information, 71% of the unrecognised and 78% of the recognised private unaided schools offer free places to some students in their schools. Regarding concessionary places, 84% of the unrecognised and 83% of the recognised private unaided schools offer these. The total number of free seats given was 2,978 (1,731 in unrecognised and 1,247 in recognised private unaided schools), while the total number of concessionary places was 4,768 (2,992 in unrecognised and 1,776 in recognised private unaided schools).

Out of a total of 43,852 children attending the private unaided schools (i.e., all the schools, including those that don't offer free or concessionary places), 2,978 were given free seats, and 4,768 had concessionary seats. (Note that these figures do not include schools that did not report – so should be taken as a lower bound on the actual numbers). That is, (at least) 6.8% had free places, and 10.9% had concessionary seats. Altogether, (at least) 17.7% of children in private unaided schools had free or concessionary seats provided for them.

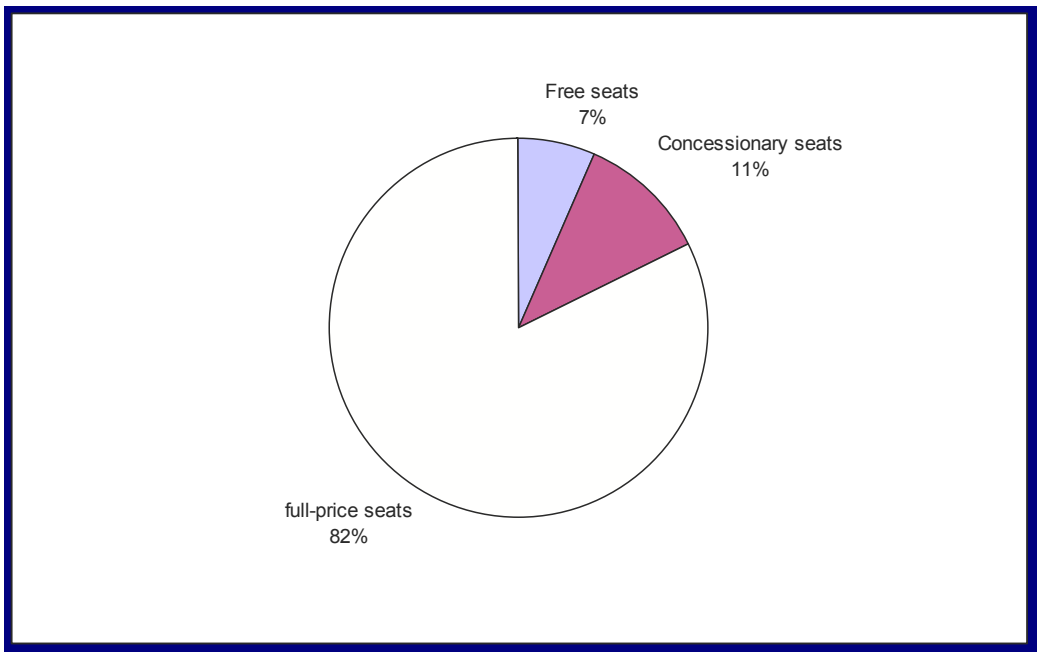


Figure 18 Hyderabad: Free and concessionary seats in private unaided schools

Why do the private unaided schools offer concessionary or free places? We asked a small number of school managers to explain why. Their reasons included:

- "To stop the drop out rate increasing";

- "To help the poorest parents by providing education at the cheapest rates";
- "To uplift the standard of education by offering services to the poorest in the slum areas";.
- "To help the poor[est] among the poor without any return from them";
- "To gain a good reputation for the school within the community".

The last answer illustrates that giving free or concessionary places may not only be to assist those in need but could also be a valuable way of raising the profile and reputation of the school in the community. This is also the case where 'very bright' children are assisted– for this will also help the school improve its reputation when exam results are published. Whatever the importance of this reputational issue, clearly very poor families are helped as a result. This has implications for one way forward to help improve equity in private schools, taken up in the last chapter.

6. Conclusions and Implications

Many have expressed concern that the 'mushrooming' of private unaided schools in sub-Saharan Africa and India may be undesirable. It is accepted by some commentators that private unaided schools are now widespread in low-income areas, such as city slums and villages. But there are worries expressed about the quality of education that is provided in this low-cost sector: for if schools charge such low fees, and pay teachers so little, how can they offer a high quality education?

Concerns are also expressed about the inequity that private education for the poor supposedly brings. For as growing numbers of parents take their children from government schools it is argued that, only the poorest are left. This seems unfair to those who are left behind.

Through our detailed two-year research in low-income areas of Hyderabad, India; Ga, Ghana; Lagos State, Nigeria; and Nairobi, Kenya (with additional studies underway or under analysis in other settings), we have found challenges to some of these assumptions. First, we have shown that the sector is indeed huge, with a large majority of school children – around 65% or more – enrolled in private unaided schools. A large proportion of these are enrolled in unrecognised or unregistered private schools – in some cases the same proportion or more as are in government schools! Contrary to some expectations, roughly equal numbers of boys and girls also attend private schools – it is not the case that parents only or mainly send their boys to them. The private unaided schools, moreover, have better pupil-teacher ratios, higher teacher commitment and sometimes better facilities, than government schools.

Children in private unaided schools also usually perform better in terms of raw scores than in government schools in three curriculum subjects, including Mathematics and English. (We also suggest that these differences are maintained or, in the case of Kenya, increased, when a rich array of family and school background variables are taken into account. However, this work is not reported here as it is under peer-review). Moreover, private unaided schools achieve these better results at between half and a quarter of the per pupil teacher cost. But although teachers are considerably lower paid in the private unaided schools, they are not any less satisfied than their government school counterparts.

Finally, what about the objection that not all children can access the private sector, so it is a vehicle for unfairness? We have seen that the private unaided schools themselves are providing a way around this objection. Nearly 20% of all places in private unaided schools in the poor areas of Hyderabad, for instance, are provided free or at reduced rates, to serve the poorest of the poor.

Rather than assuming that the private unaided sector is a problem, it could be seen as a great strength and something to be celebrated. It should perhaps be seen as a

dynamic demonstration of how the entrepreneurial talents of people in Africa and India can forcefully contribute to the improvement of education, even for the poor.

The following are three implications that might be drawn from the evidence offered in this report:

- Private education has an important role in helping the government meet its 'education for all' targets. Indeed, the large numbers of students in private unrecognised or unregistered schools – currently off the state's radar – suggest that there are many more children already in school than appear on government lists, already served by private education.

- This does not mean that the private unaided sector cannot be improved. School managers realise this. In Nigeria and Hyderabad, we have been active in setting up a revolving loan fund to help private schools improve their facilities. Such a loan fund could be extended and replicated to enable more children to access education in an even better, safer and educationally more conducive environment. Other educational services could also be offered to help the private unaided schools improve and better serve their communities.

- The private schools themselves offer free and concessionary seats to the poorest children. Initiatives like this could be extended and replicated by philanthropists and/or the state, so that 'pupil passports' or vouchers could be targeted at the poorest children. With these, many more of the poor could be empowered to attend private unaided schools.

7. Bibliography

Aggarwal, Y. (2000) *Public and Private Partnership in Primary Education in India: A Study of Unrecognised Schools in Haryana,* New Delhi: National Institute of Educational Planning and Administration.

Bauer, A., Brust, F., and Hybbert, J. (2002) Entrepreneurship: A case study in African Enterprise Growth, Expanding Private Education in Kenya: Mary Okelo and Makini Schools, *Chazen Web Journal of International Business,* Fall, 2002, Columbia Business School.

Bennell, P. (2004) *Teacher Motivation and Incentives in Sub-Saharan Africa and Asia,* Knowledge and Skills for Development, Brighton.

Cox, D., and Jimenez, E. (1989) The Relative Effectiveness of Private and Public Schools: Evidence from Two Developing Countries, *Journal of Development Economics,* vol. 34, pp. 99 - 121

Chaudhury, N., Hammer, J., Kremer, M., Muralidharan, K., and Halsey Rogers, F. (2004) Provider Absence in Schools and Health Clinics [Available from: <http://worldbank.org accessed October 2004]

De, A., Majumdar, M., Samson, M., and Noronha, C. (2002) Private Schools and Universal Elementary Education, in Govinda, R. (ed.) *India Education Report: A Profile of Basic Education,* Oxford and New Delhi: Oxford University Press, pp. 131 – 150.

Druaisamy, P., and Subramanian, T. P. (2003) Costs, financing and efficiency of public and private schools in Tamil Nadu, in Tilak, J. B. G. (ed.) *Financing Education in India: Current issues and changing perspectives* ,Delhi, Ravi Books.

Govinda, R., and Varghese, N. V. (1993) *Quality of primary schooling in India: a case study of Madhya Pradesh*, International Institute for Educational Planning, National Institute of Educational Planning and Administration, Delhi.

Habyarimana, J., Das, J., Dercon, S., and Krishnan, P. (2004) *Sense and Absence: Absenteeism and Learning in Zambian Schools,* World Bank, Washington DC.

Kingdon, G. (1996) The Quality and efficiency of Private and Public Education: A Case Study in Urban India, *Oxford Bulletin of Economics and Statistics,* 58, (1), pp. 57-81.

Kremer, M., Mularidharan, K., Chaudhury, N., Hammer, J., and Rogers, H. (2004) Teacher Absence in India (Draft) [Available from: <http://econ.worldbank.org accessed October 2004]

Lagos State Government (2004) Report from Lagos State to the Joint Consultative Committee on Educational Planning (JCCE) Reference Committee on Educational Planning Holding at Owerri, Imo State between 18th and 23rd April 2004, Ministry of Education, Alausa, Ikeja.

Lassibille, G., Tan, J., and Sumra, S. (1998) Expansion of Private Secondary Education: Experience and Prospects in Tanzania, *Impact Evaluation of Education Reforms,* Paper No. 12, Working Paper Series, World Bank.

Lassibille, G., and Tan, J. (2001) Are Private Schools More Efficient Than Public Schools? Evidence from Tanzania, *Education Economics,* vol. 9, no. 2, pp. 145 – 172.

Nambissan, Geetha, B. (2003) *Educational deprivation and primary school provision: a study of providers in the city of Calcutta,* IDS Working Paper 187, Institute of Development Studies

Nwagwu, C. C. (1997) The Environment of Crises in the Nigerian Education System, *Comparative Education,* vol. 33, no. 1, pp. 87-95

Rose, P. (2002) *Is the Non-State Education Sector Serving the needs of the Poor?: Evidence from east and Southern Africa*, Paper prepared for DfID Seminar in preparation for 2004 World Development Report (not to be cited with the author's permission p.m.rose@sussex.ac.uk).

Rose, P. (2003) From the Washington to the Post-Washington Consensus: the influence of international agendas on education policy and practice in Malawi, *Globalisation, Societies and Education,* vol. 1, no. 1, pp. 67-86.

Sen, A. (2001) *Pratichi Education Report,* [Internet] Pratichi Trust. Available from http://www.amartyasen.net/pratichi.htm (accessed December 2002).

The Probe Team (1999) *Public Report on Basic Education in India,* Oxford and New Delhi: Oxford University Press.

Tooley, J., and Dixon, P. (2003) *Private schools for the poor: A case study from India.* CfBT Research and Development, Reading.

UNDP (2003) *Human Development Report 2003,* New York: United Nations Development Programme.

Watkins, K. (2000) *The Oxfam Education Report,* Oxford: Oxfam in Great Britain.