School Choice in Lagos State

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Executive Summary

Chapter 1: Background and sample

1. The current study builds on earlier research highlighting the role private schools are playing in Lagos State, Nigeria. The National Population Commission and Newcastle University conducted a household survey of a representative sample of over 1,000 households across the whole of Lagos State. A random sample of 101 Census Enumeration Areas (EAs) was selected, and within these a random sample of 10 households. The person or persons responsible for making decisions about education in each household was interviewed by a trained researcher.

Chapter 2: Children, families and schools

2. The sample consisted of 2,290 children between the ages of three to 14, in 1,005 households. Girls made up 48.6 percent of the sample, while "wards" were 7.4 percent. Using a Lagos-specific poverty line of Naira 112,895 per person per annum, with the caveat that households may have under-reported income, gave around 53 percent of households living on or below the poverty line.
3. Families are predominantly using private schools for their children. In the sample, 69.8 percent of children are in private schools, compared to 26.4 percent in public. Out of school children make up only 3.9 percent of the sample – but only 1.3 percent of the sample are aged five to 14 and not awaiting placement in secondary schools.
4. Primary school is predominantly in the private sector, with 72.8 percent of primary children in private school. Pre-primary school is essentially private – 91.0 percent of pre-primary children are in private school. Secondary level is mixed: although this wasn't the main focus of this study, we found around 50 percent of secondary enrolment in the public sector.

Chapter 3: Private schools and affordability

5. 'Low-cost' private schools are those affordable by a family on or below the poverty line, if total fees for all children in school amount to between 10 to 11 percent of total family income. Private schools charging total fees (including for tuition, registration, development, sports, PTA, exams, report cards and graduation) of Naira 25,000 per annum or lower are classified as 'low-cost' private schools. 'Medium cost' and 'high cost' are defined in relation to this.

6. About one fifth of the total sample (21.8 percent) of children is using low-cost private schools, while nearly a quarter is in medium cost (24.0 percent) and high cost (23.9 percent) private schools.
7. For families on or below the poverty line, 50 percent precisely are using private schools for *all* their children, while a further 20.7 percent uses a mixture of public and private. Only 20 percent of families on or below the poverty line use public schools only. That is, 71 percent of the poorest families in the sample use private schools for all or some of their children.
8. Concerning enrolment, 69 percent of children in low-cost private schools are living on or below the poverty line, compared to 73 percent of children in public schools. There is no statistically significant difference in the percentage of the poor enrolled in low-cost private schools or public schools.
9. Investigating school choice by per capita income decile, it is striking how similar the patterns are for choice of public and low-cost private school. Similar percentages use both at each income decile, declining with increasing income. Crossing above the poverty line leads to a particularly sharp decline in enrolment.

Chapter 4: Some child and family characteristics

10. Girls are neither under-represented in private schools nor in higher levels of schooling: there are no statistically significant differences in gender enrolment in different school management types or levels of schooling. Wards of households however are significantly more likely to be in public than private schools.
11. Families most closely linked with being in poverty are those headed by single mothers, grandparent or grandparents without parents present, and fathers with more than one wife. Conversely, the family structure of two parents with their children and three-generational families are less likely to be associated with poverty.
12. Two-parent families are more likely to send their children to private than public schools: 81.7 percent of children in low-cost private schools are from two-parent families, compared to 70.8 percent in public schools.
13. It is noticeable how similar households using public and low-cost private schools are, and how different these are from other households. On indicators such as percentage of primary earners on monthly salaries, percentage of mothers with no schooling, number of bedrooms in the house, number of cellphones in the family, percentage with a car, total family income and per capita income, children using public schools are very similar to children using low-cost private schools. There are differences, however, in family structure and percentage of fathers who have had secondary level schooling (47.4 percent low-cost private compared to 35.1 percent public).

Chapter 5: School choice, by level of schooling and income

14. School choice by income, disaggregated in terms of level of income, shows that the earlier observation (8 above) of how close public and low-cost private schools are is even more pronounced when primary school children only are investigated. Similar percentages use both at each income decile, declining with increasing income. Crossing above the poverty line leads to a particularly sharp decline in enrolment.

Chapter 6: Schooling costs – comparing public and private

15. Public schools also charge some "levies". The vast majority (94.9 percent) of public schools would be included as 'low-cost' taking into account these levies. Taking into account 'extra spend' on education, such as for uniform, books, stationery, food, transport, clubs, and outside tuition, brings more convergence between public and low-cost private schools. More families using public schools are in the 'medium' and 'high' extra spend categories than families using low-cost private schools – 41.0 percent of public school families are medium extra spend, compared to 39.0 percent of low-cost private school families, while 27.8 percent of public school families are higher extra spend, compared to 21.3 percent of low-cost private school families.
16. There is considerable overlap between families using public and low-cost private schools by total education expenditure (i.e., adding all fees and extra expenditure). 35.3 percent of total expenditure in low-cost private schools is in the second wealth quintile, compared to 22.0 percent in public schools.

Chapter 7: Choosing a School – who decides and how?

17. Parents tend to stay 'in their own camp': 74.1 percent of families using public schools did not investigate any private schools, while 83.6 percent of those using low-cost private schools did not investigate any public schools. The mean number of schools investigated is low: 0.41 schools for public, 1.38 for low-cost private and 2.1 for high-cost private.
18. For the vast majority of children (around 80 percent in all school types), both mother and father together make school choices for their children. Grandmothers make choices nearly three times more than grandfathers (7.6 percent compared to 3.2 percent, for instance, for low-cost private school choice).
19. The major source of information to inform school choice is school visits – used by 75.5 percent of families – followed by talking to the families' network of friends, neighbours and relatives (53.9 percent), and observing children from the school (35.5 percent of families). Parents choosing each different management type had the same three

priorities, although considerably more families using low-cost private schools than other types pointed to the importance of observing children from the school.

Chapter 8: Reasons for school choice

20. The three main reasons for choice of low-cost private schools most commonly reported were proximity to home (61.7 percent), better quality teachers (46.1 percent) and better quality school (45.1 percent). For public school choice, proximity to home is also first (52.3 percent), followed by good discipline (48.3 percent) and school reputation (43.0 percent).
21. Asked to choose one reason only that guided school choice, better quality teachers came in top (chosen by 22.8 percent of respondents), followed by better quality school (19.5 percent), good discipline (13.4 percent) and proximity to home (12.3 percent).

Chapter 9: Moving schools

22. Most children moving between schools move from private to other private schools (79.9 percent of 380 movers). It is clear that some parents are discriminating between different private schools in terms of both cost and quality. Moves from private to public were mostly (75 percent) because the parents could no longer afford private school, while moves in the opposite direction were largely because of dissatisfaction with the child's academic performance (71 percent).

Chapter 10: Which is better, public or private?

23. Families overwhelming believe private is better than public. For personal requirements, families in each of the wealth categories, including the poorest, favour private schools. They believe private schools are open the hours they require, are responsive to their complaints, and are near to their homes. Affordability is the only issue where public schools rate higher. For all quality issues, families in each of the wealth categories again favour private over public schools.
24. The same is true even when we look at which schools families actually use. For personal requirements, families using public as well as private favour private schools. For quality issues, families using public and private believe that facilities, class size, discipline, teachers teaching when they should, etc., are better in private than public schools. The only issue where families using public schools rate public higher than private concerns teachers being well-trained. But in spite of teachers being better trained in public than private, this does not lead to a perception of higher quality in public schools.

Chapter 11: Towards a statistical model

25. Five different logistic regression models were created based on the four school types (public, low, medium and high cost private) and out of school children. 11 variables were used, including two created from factor analysis of family assets ('modern' and 'traditional' wealth).
26. Regarding the likelihood of choosing a public school, older children and those who are higher in the family ordering are *more likely* to go to public schools. Conversely, children from two-parent families, families with higher incomes, more modern wealth and with better educated fathers are *less likely* to send children to public schools.
27. Concerning low-cost private schools, families with more 'traditional' wealth and from two parent families are *more likely* to choose low-cost private schools. Conversely, older children are less likely to go to low-cost private schools, as are those from families with more modern wealth and with better educated mothers.
28. Disaggregating by school level, for primary schools, older children, those higher in the family order, wards of households, and those with less educated fathers and less modern wealth are more likely to go to public school. Children with less educated mothers and from families with less modern wealth are also more likely to go to low-cost private schools.

Chapter 12: Reasons for school choice: regression models

29. Families choosing public or low-cost private schools put less emphasis on perceived quality as a major reason for school choice than families choosing medium and high cost private schools. This is also true for pre-primary and primary children, when we disaggregate by levels of schooling. Conversely, affordability and closeness to home appear much more important to families using low-cost private schools than other types of private school.
30. The perceived quality of a school is more important for families with higher mother's education and modern wealth, in general, and in particular for parents of primary school children. Fees and costs, as well as proximity to home, become less important as modern wealth increases, in general; the first two are also true for primary school children in particular. Discipline becomes a more important criterion for older children, and as modern wealth increases.

Chapter 13: Choosing a school – regression analysis

31. Few families get *no* information about the school, but there is a significantly higher proportion among those sending their child to public school than for any of the private school categories. There was no significant difference between families using different

school types as to the extent they talked to others about school choice. Families who sent their child to public school were less likely to have visited the school or observed teachers or pupils than those going to private schools (there was no difference in private school categories).

32. Families getting no information for school choice tend to have lower mother's education and lower levels of modern wealth. There were no significant background variables relating to family's tendency to talk to others about school choice. The tendency to visit and observe the school is related positively to mother's education, and to the father having been in private education. The tendency to collect information about the school is positively related to modern wealth, father's education and mother's education. The tendency for grandparents to have more of a say in school choice is more likely for younger children and where the mother's education is lower. Grandparents are also more likely to have a say in the school choice of wards of households.

1. Introduction: Background and sample

Earlier research has highlighted the role private schools are playing in education in Lagos State, Nigeria. For example, the Education Sector Support Programme in Nigeria (ESSPIN) conducted a survey of private schools across the whole of Lagos State in 2010-11 (Härmä 2011a). It found 12,098 private schools and around 60 percent of total enrolment in private primary schools (Fig. 3, p. 16). A follow-up in-depth study conducted household surveys in two slum areas to explore reasons for choice of particular schools (Härmä 2011b). Earlier still, a survey of "poor" areas of three Local Government Areas (Tooley et al, 2005) also suggested a large majority of schoolchildren were in private education; testing 4,000 children in three subjects showed children in private schools outperforming those in public schools, even after controlling for background variables and possible selectivity bias (Tooley et al, 2011; a popular summary of this work is in Tooley, 2009).

The current study aimed to build on the earlier ESSPIN work by conducting a detailed household survey across the state of Lagos. It aimed to be representative, and to improve understanding of three main questions:

1. Who goes to which type of school (public, private) or not to school, and why?
2. How are schooling decisions made by households?
3. What is the influence and impact of poverty on who goes to which schools and why?

To explore these questions, an interview questionnaire was created by the National Population Commission and Newcastle University, designed to probe areas arising and based on other school choice questionnaires that had earlier been developed. The team also set out to create a representative sample of households across Lagos State. (In this report, I use 'households' and 'families' as synonyms). Application of the standard formula for sample selection showed that at least 1,001 households were required in the sample to have adequate statistical power to answer the above questions, including being able to discriminate in terms of categories such as gender. (In the event, we sampled 1,005 households, which was close enough to the required

1,001 to be deemed not to make any significant difference). While we were looking for as close as possible to a strictly representative sample of households, as usual, there was a trade-off between the desirability for as "pure" a representative sample as possible, and available resources. The approach adopted was to get as close to a representative sample as one can reasonably get through *indirect* random sampling. The obvious candidates were the Census Enumeration Areas (EAs), which become our Primary Sampling Units (PSUs). We used a random sample of EAs and within the sampled EAs randomly selected household targets. It was deemed convenient to focus on 10 households in each PSU, meaning that 101 PSUs (EAs) were randomly selected.

The sampling method followed was first to define the Universe of EAs, and randomly select 101 EAs from this list. Second, we had to determine the exact number of households in each randomly selected EA. This required a listing exercise to be carried out prior to the research proper in the selected EAs, which was one of the most important bias correction procedures in the survey. The exercise provided complete and recent information on the number of residential buildings, buildings occupied and households with children who are of pre-primary, primary or junior secondary school age. (The exercise also provided a useful way of the researchers introducing themselves to the households, which enabled the next stages to run more smoothly). Third, once the list of all households in each of the randomly selected EAs is obtained, this list was ordered by one or the key background characteristics (size of household). Fourth, the total number of households in the EA was divided by 10 to get a 'sampling interval'. For example, in an EA with 120 households, the sampling interval would be 12. The required 10 households would be targeted on the list in each selected EA, by choosing the number 12 (in this case) on the list, then 24 (two times 12), and so on.

The interviews were conducted in the 10 households in each EA. If any of the initial 10 targets was not present, the researchers were instructed to return three times, before moving down the sorted list to the next household, until they got a positive response. (The advantage of moving down an ordered list is that the replacement household will be close in key characteristics to the

original choice). Importantly, for each household chosen, the researchers asked to interview the person who either mainly makes the decisions about education within the household, or is part of the team that does so. The interview took about one hour per household.

What did the researchers find? This report is divided into 13 chapters. Chapters 1 to 10 explore the major issues that emerge from the data in response to the research questions, including a focus on what types of school children attend, the issue of affordability, relative costs in public and private, and the school choice process. Chapters 11 to 13 are more technical, building on the descriptive statistics of the earlier chapters to create statistical models that shed further light on the research questions.

2. Children, families and schools

We begin by looking at some of the characteristics of children and their families in the sample. How many children are in the sample, how old are they and what gender? Then we explore what schools children go to and compare these findings with earlier studies.

Children and their families

There were a total of 2,290 children between the ages of three and 14 – the "school and pre-school" aged children investigated – in the sample of 1,005 households, an average of 2.28 school-aged children per household. Girls made up 48.6 percent of the sample, boys 51.4 percent. Regarding 'wards' of households, 7.4 percent of children were reported to be 'wards'. Children were spread across the age group examined, with around 30 percent of the children aged between three and five years, 35 percent between the ages of six and nine, and around 35 percent between the ages of 10 and 14 (Table 1, there were 35 missing cases for the variable age).

Table 1 Age range of children in sample

Age in years	Number	%
3	230	10.2%
4	237	10.5%
5	218	9.7%
6	194	8.6%
7	212	9.4%
8	219	9.7%
9	176	7.8%
10	201	8.9%
11	116	5.1%
12	176	7.8%
13	134	5.9%
14	142	6.3%
Total	2255	100%

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How many families in our representative sample lived in poverty? The Lagos specific poverty line (based on how much money is needed to buy adequate food and essentials for one person), updated for inflation, is Naira 112,895 per annum (£455.92), i.e., Naira 9,408 per month (£37.99) or Naira 309 per day (£1.25 – not to be confused with the $1.25 PPP per day figure used as an alternative way to calculate poverty), (IMF, 2012, World Bank, 2008).

In the interview questionnaire, we probed for full details of the monthly income from earning members of the household; combined with information on the total number of members in the family we were able to calculate the per capita income in each household. Not surprisingly, in common with many household surveys of this kind, the caveat needs to be raised that in the questionnaire/interview setting, some parents may intentionally or otherwise under-report family income. One reason may be because couples do not always know each other's incomes. It was unusual to interview both a husband and wife team, so we are likely only to have partial responses to this question. We assume that the per capita *income* figures for each family are roughly equivalent to household *expenditure* (likely to be true for poorer families, although less likely as families get richer, as they will have capacity for savings), so using these figures we can approximate the proportion of families living on or below the poverty line. We've also taken an arbitrary figure of "up to twice the poverty line" as an indicator of medium-income families, and those above that line as being higher-income families.

Table 2 shows the proportion of each household in this study in these income brackets. In our sample, 53 percent of households were assessed as being on or below the poverty line, while 29 percent were 'middle income', between one and two times the poverty line level, and 18 percent were on higher-income levels..

Table 2 Families in the sample and poverty levels

	Number	Per cent
Below Poverty Line	492	53.1%
Up to twice poverty line	270	29.1%

Above twice poverty line	165	17.8%
Total	927	100%

Note: data available from 927 families

Children and their schools

Where do the children go to school? Table 3 shows the results. The vast majority of children (69.8 percent) are in private school. Just over one quarter (26.4 percent) is in public school, while 3.9 percent are out of school.

We can disaggregate the out of school figures further. Of the total of 88 classified by the interviewees as 'not in school', 26 of these also reported that the children were 'awaiting placement', for Junior Secondary School (JSS) or Senior Secondary School (SSS), while 33 of these were aged three or four. That is, only 29 children (1.3 percent) were out of school in the five to 14 years category who were not awaiting placement to other schools (Table 3). Some respondents gave reasons for why their children were out of school: 12 with children aged three or four reported that their children were 'too young' for school. For the 29 out of school in the age five to 14 category, parents of all 29 reported that 'fees are too high'.

In subsequent analysis concerning school choice, we will, unless otherwise specified, exclude the 26 students who were 'awaiting placement': They are only doing so because of the tardiness of the authorities, and would otherwise be in school. However, we do not know for certain what type of school they would be in, so it seems safest to exclude them from the analysis.

Table 3 Children and school type

School Type	Frequency	Per cent
Public	602	26.4%
Private	1,594	69.8%
Not in School	88	3.9%
Aged 3 & 4	*33*	*1.4%*

Aged 5 to 14	*29*	*1.3%*
Awaiting placement	*26*	*1.1%*
Total	2,284	100%

Note: 6 cases were missing school type variable.

For the children in school, we can also examine the proportions in each school type by level of schooling – that is, pre-primary, primary and secondary (data was available from 2,193 children). The figures in table 4 of course exclude children who are out of school, so the percentages are slightly higher than in table 3. Here we see that pre-primary is almost entirely private – with 91.0 percent attending private schools and only 9.0 percent public. Primary is also predominantly private – with 72.8 percent private and 27.2 percent public. At secondary school level (but see below for caveats), there are more substantial levels of public enrolment – exactly 50 percent for JSS and 48.6 percent for SSS.

Table 4 Children and school type, by level of schooling

		Type of School		
		Public	**Private**	**Total**
Pre-primary	Number	51	517	568
	%	9.0%	91.0%	100%
Primary	Number	310	830	1140
	%	27.2%	72.8%	100%
JSS	*Number*	*188*	*188*	*376*
	%	*50.0%*	*50.0%*	*100%*
SSS	*Number*	*53*	*56*	*109*
	%	*48.6%*	*51.4%*	*100.0%*
All	Number	602	1591	2193
	%	27.5%	72.5%	100%

Differences with earlier studies and an important caveat

How can we explain the differences between these figures and those found in the ESSPIN research discussed in the Introduction (Härmä 2011a, b)? First, we can say that at pre-primary level, the figures are more or less the same – ESSPIN reported that pre-primary schooling was 'essentially private' (p. 16); our findings are the same. Regarding, primary schooling, ESSPIN found around 60 percent in private primary schools (Fig. 3 p. 16), while we have found over 70 percent. There could be at least three reasons for this difference:

1. In any survey of the kind undertaken by ESSPIN, focusing on schools, 100 percent coverage of all schools cannot be guaranteed. It is likely that some unknown proportion of private schools were not located in their study, which would lead to a higher proportion of children in private schools than they found.
2. ESSPIN researchers visited all of the private schools located to obtain enrolment data, but relied on official figures for enrolment in public schools. It is possible that the latter figures were not wholly correct.
3. It is acknowledged in the ESSPIN reports that the number of private schools appears "to be growing year on year" (Härmä 2011b, para 12, p. 6). So it is likely that there has been a further increase in enrolment in the private sector in the two years since the ESSPIN census was conducted.

Finally, regarding secondary school, ESSPIN found around 35 percent private enrolment in each level (JSS and SSS), whereas we found around 50 percent. The caveats above apply about the ESSPIN research. From our side, however, we were *not* aiming to find all children in secondary schools: our specific aim was to locate all children aged three to 14 years. This ensured that we located all children in pre-primary and primary schools; we also wanted to find those in JSS too, but in retrospect this was probably overly ambitious, as some children in JSS will be older than 14 years. We probably hadn't assumed we would find children in SSS at all, but there were over 100 in SSS who were aged 14 years or less. Hence the important caveat is that while we can be confident that we found all children at pre-primary and primary levels, there are likely to be

missing numbers at each level of secondary schooling. Hence, for the sake of completeness, we indicate in the above table the percentages found in JSS and SSS, but these must be not be taken as indicating that these are likely to be the proportion of children in public and private JSS and SSS in the state as a whole. In all the ensuing discussion in this report when we look at secondary school children, this caveat must be kept in mind.

To summarise: because of the representativeness of our sample and the fact that we surveyed all children aged three to five years, we can be confident that the figures for pre-primary and primary are accurate, within normal margins of error. That is, in Lagos State, over 70 percent of primary children are in private school, and 90 percent of pre-primary. This is quite a remarkable finding. However, given the limitations of our study, we cannot conclude the same about the percentages found in JSS and SSS.

3. Private schools and affordability

Children in Lagos State are predominantly using private schools, at pre-primary and primary level. But how affordable are these private schools, particularly to poor families? This chapter defines low-cost private schools in terms of affordability to the poor, and then explores enrolment in different school management types in the context of family poverty.

Defining "Low-cost" private schools

The phenomenon of 'low-cost' or 'low-fee' private school is often now a focus of discussion, but there is no agreed definition on what this means (see e.g., Srivastava 2013). For the research here, we asked for all the various costs to parents, including school fees and all other school-level expenses such as registration fees, development or building levies, sports fees, PTA fees, exam fees, report card fees, and graduation levies. (This figure does not however include sums spent on school uniform, books, stationery, food, transport and private tuition after school, see below). The total annual school cost to parents was computed. Parallel qualitative research conducted at the same time in Lagos State pointed to a possible reasonable way of defining 'low-cost' private schools. This suggested that if total schooling costs for *all* of the family's children came to between 10 and 11 percent of total family expenditure, then this would be affordable by poor (and non-poor) families. Usefully this fits in with Lewin's suggestion made that a maximum of around 10% of family income of the poor could be spent on school fees (Lewin, 2007).

From our data, the average (mean) household has 5.21 members of whom 2.81 are classified as children (under 18 years), while an average of 2.28 are children aged 3 to 14 in the study. As some of the older children are also likely to be in school, we take a mean figure of 2.55, half way between 2.29 and 2.81, as the estimated mean number of children in school. Using these family figures, we can then do the calculations summarised in Table 5, which assessed what an average family could afford to spend on total school fees for all school children, if these were

capped at between 10 to 11% of total family income. Using these calculations, we can define 'low cost' private schools as those schools affordable by families on or below the poverty line, while 'medium cost' private schools are those affordable to families on up to *twice-poverty line* incomes. Finally, we define 'high cost' private schools as those affordable only by families on *above twice-poverty line* incomes.

Usefully, we find that private schools with maximum annual total costs to parents of Naira 25,000 (£100.96) would take 10.8 percent of income of an average family on the poverty line (paying the costs for all school-going children), while private schools with maximum total costs of Naira 50,000 (£201.92) would also take 10.8 percent of income for families between one and two times poverty line income. As this percentage fits within the desired 10 to 11 percent range, we can therefore define private schools into three price categories:

- Low cost – charging total fees of up to Naira 25,000 per annum
- Medium cost – charging total fees between Naira 25,000 and Naira 50,000 per annum
- High cost – charging total fees above Naira 50,000 per annum

Table 5 Calculations for private school affordability

	Poverty line per day		Poverty line per month		Poverty line per year	
	Poverty line	200% Poverty line	Poverty line	200% Poverty line	Poverty line	200% Poverty line
Naira	309	619	9,408	18,816	112,895	225,790
GBP	£1.25	£2.50	£37.99	£75.99	£455.92	£911.84
School cost type	Total fees per annum (Naira) per child	Total family income given average (mean) family size	% family income for average (mean) children in school	Total family income (200% poverty line)	% family income 200% poverty line for children in school	
Low cost (maximum)	25000	588,183	10.8%			
Medium cost (maximum)	50000			1,176,366	10.8%	
Average (mean) family members	5.21					
Estimated school-age children	2.55					

Enrolment in private school by cost category and poverty

We can now expand Table 3 to include enrolment in these different categories of private schools. Table 6 shows enrolment in type of school expanded into five categories – three range of costs for private, plus public and out-of-school. Here we can see that 21.8 percent of all children in Lagos State are in low-cost private schools, while 24.0 percent are in medium cost and 23.9 percent in high cost private schools. The proportion of children in each private school category is not markedly different from the proportion of children in public schools.

Table 6 Children and school type (expanded categories)

School Type	Frequency	Per cent
Public	602	26.4%
Private	1,594	69.8%
Low Cost	*498*	*21.8%*
Medium Cost	*549*	*24.0%*
High Cost	*547*	*23.9%*
Out of School	88	3.9%
Total	2,284	100%

Note: 6 cases were missing

We defined "low-cost" private schools as a way of ascertaining what poor families could afford. But from our data, which families in fact send their children to this – and other – type of school? In this regard, it is important to note that many families don't choose just one type of school for their children. Looking at households in our study, 61.6 percent used private schools only for all children in the household, while 16.0 percent used public schools only. However, 16.1 percent of households used a mixture of public and private schools for children in their care, while smaller percentages used a mixture of public, private and out of school (see Table 7).

Table 7 Households choosing different types of schools

School choice categories	%
Public only	16.0%
Public and private	16.1%
Private only	61.6%
Public and out of school	1.3%
Public and private and out of school	0.9%
Private and out of school	2.6%
Out of school only	1.6%
Total	100%

How do these choices differ by poverty levels? Table 8 shows the percentage of families at the poverty and above income levels, and how these families use different combination of public, private and out-of-school for their children.

One important finding is that, *for families on or below the poverty line*, 50 percent precisely use private schools for *all* their children, while 20.7 percent uses a mixture of public and private. Only 19.9 percent of these families use public schools only. That is, *over 70 percent of the poorest families in the sample* use private schools for all or some of their children.

Table 8 Choice of schools, household level, by school type and poverty

		Family choice of Schools							
		Public only	**Public and private**	**Private only**	**Public and out of school**	**Public, private and out of school**	**Private and out of school**	**Out of school only**	**Total**
Below Poverty Line	Number of families	97	101	244	10	7	20	9	488
	% families	19.9%	20.7%	50.0%	2.0%	1.4%	4.1%	1.8%	100%
Up to twice poverty line income	Number of families	39	37	181	2	1	3	6	269
	% families	14.5%	13.8%	67.3%	0.7%	0.4%	1.1%	2.2%	100%
Above twice poverty line income	Number of families	12	16	135	0	0	2	0	165
	% families	7.3%	9.7%	81.8%	0.0%	0.0%	1.2%	0.0%	100%
All	Number of families	148	154	560	12	8	25	15	922
	% families	16.1%	16.7%	60.7%	1.3%	0.9%	2.7%	1.6%	100%

Returning to analysis at the child (rather than family) level, shows another important finding (Table 9). There are roughly equal percentages of children in public and low-cost private

schools from families on or below the poverty line: 73 percent of children in public schools and 69 percent of children in low-cost private schools are on or below the poverty line. Meanwhile, only 6 percent in both cases are over twice the poverty line. If we conduct a chi-square test on just these two school types, we see that there is no significant difference between them (Table 10). That is, there is no statistically significant difference in the percentage of the poor enrolled in low-cost private schools or public schools.

Table 9 Poverty line and choice of schools

		On or below Poverty line	Poverty line to twice poverty line	Over twice poverty line	Total
Public	Number	415	117	34	566
	% within school type	73.3%	20.7%	6.0%	100.0%
	% within poverty income	34.6%	21.3%	10.5%	27.3%
Private (low cost)	Number	327	119	28	474
	% within school type	69.0%	25.1%	5.9%	100.0%
	% within poverty income	27.3%	21.6%	8.6%	22.9%
Private (medium cost)	Number	281	157	61	499
	% within school type	56.3%	31.5%	12.2%	100.0%
	% within poverty income	23.4%	28.5%	18.8%	24.1%
Private (high cost)	Number	129	151	199	479
	% within school type	26.9%	31.5%	41.5%	100.0%
	% within poverty income	10.8%	27.5%	61.2%	23.1%
Not in school	Number	47	6	3	56
	% within school type	83.9%	10.7%	5.4%	100.0%
	% within poverty income	3.9%	1.1%	0.9%	2.7%
All	Number	1199	550	325	2074
	% within school type	57.8%	26.5%	15.7%	100.0%
	% within poverty income	100.0%	100.0%	100.0%	100.0%

Table 10 Enrolment in public and low-cost private in context of poverty

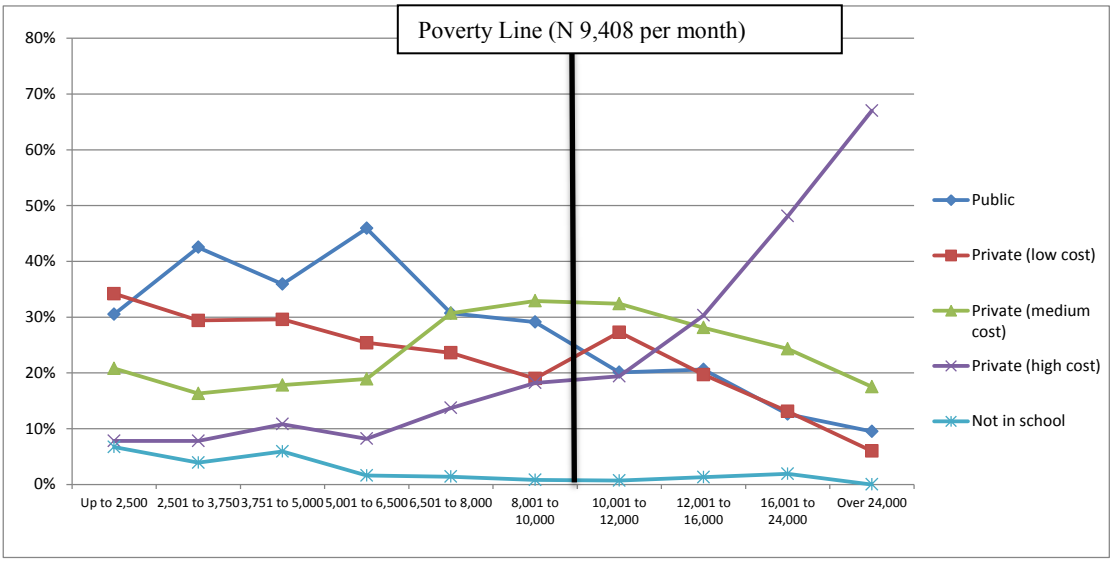
		On or below Poverty line	Poverty line to twice poverty line	Over twice poverty line	Total
Public	Number	415	117	34	566
	% within school type	73.3%	20.7%	6.0%	100.0%
	% within poverty income	55.9%	49.6%	54.8%	54.4%
Private (low cost)	Number	327	119	28	474
	% within school type	69.0%	25.1%	5.9%	100.0%
	% within poverty income	44.1%	50.4%	45.2%	45.6%
All	Number	742	236	62	1040
	% within school type	71.3%	22.7%	6.0%	100.0%
	% within poverty income	100.0%	100.0%	100.0%	100.0%
Chi-Square = 2.919, df = 2, p>0.1					

We can explore the same information graphically. Figure 1 shows the percentage of children in each school type according to family income deciles, with an indication of where the poverty line lies. (The caveat noted above about under-reporting of income clearly applies here: we see not insignificant proportions of families on the lowest income decile report sending their children to medium or even high cost private schools. On the incomes reported, our qualitative research suggests that this would be impossible in many cases.) Notwithstanding the caveat, the following points may be noted:

- It is striking how similar the patterns are for public school and low-cost private school choices, with similar levels at each per capita income, declining with increasing income. Indeed, almost as soon as the Poverty-line bar is crossed, the decline is particularly steep.

- Medium-cost private school choices are fairly constant, increasing slightly for middle-income families, then declining once the Poverty-line bar is crossed.
- High-cost private school choices increase fairly steeply as per capita incomes rise – even more noticeably than above, as soon as the Poverty-line bar is crossed, these climb dramatically.
- Out of school children fall slowly with higher per capita income.

Figure 1 School choice, by family income deciles



4. A closer look at some child and family characteristics

In Chapter 3, we found plausible relationships between per capita income and school choice. However, it is also clear that income and poverty will not be the sole determinants of school choice. What other factors might be significantly related to family's choices of school type for their children? In this chapter, we focus on four key variables – gender, wards, family structure and mother's education – before giving a descriptive summary of all the household variables identified in the research.

Gender

It is often assumed that enrolment in private education is biased against girls, and that girls are under-represented in the higher grades of schooling. Data from Lagos do not support either assumption.

First, on levels of schooling, Table 11 shows enrolment at the different levels of schooling examined in this research. A Chi-square test showed no significant difference for gender and levels of schooling. For this and the next table it is important to recall that 51.4 percent of the sample is male, 48.6 percent female. Let's look at pre-primary and primary only. While there are more boys than girls at each school level (observe "% within school level" rows), there are roughly similar percentages within each gender – so there are 26.0 percent of all boys at pre-primary level, and 25.8 percent of girls. Similarly, there are 53.3 percent and 50.5 percent of boys and girls respectively at the primary level. At JSS and SSS levels, contrary to expectations, the proportion of girls increases – so there are more girls than boys at both levels (although again, these differences are not statistically significant). However, the caveat noted above must be recalled – we didn't aim to find all the children at secondary school levels, and especially not children older than 14 years.

Second, on choice of public or private schools, again a Chi-square test showed no significant differences between gender and school type. Students in public school in the study are 51.2

percent male, and 48.8 percent female, while in low-cost private schools they are 53.1 percent male and 46.9 percent female. In the table below, the "% within gender" row is again important to examine: this figure is very close for each school type. So 26.6 percent of all the boys in the sample are in public schools, and 26.8 percent of girls. Similarly 22.7 percent of boys are in low-cost private schools, and 21.2 percent of girls. The only category where it appears there might be larger differences is 'out-of-school', where 2.5 percent of boys must be compared with 3.0 percent of girls. However, when the chi-square test is run for only this category, there is no statistical difference.

Table 11 Gender of children by levels of schooling

		Sex of child		
		Male	**Female**	**Total**
Pre-primary	Number	293	274	567
	percent within school level	51.7%	48.3%	100%
	% within gender	26.0%	25.8%	25.9%
Primary	Number	602	536	1138
	% within school level	52.9%	47.1%	100%
	% within gender	53.3%	50.5%	52.0%
JSS	*Number*	*183*	*193*	*376*
	% within school level	*48.7%*	*51.3%*	*100%*
	% within gender	*16.2%*	*18.2%*	*17.2%*
SSS	*Number*	*51*	*58*	*109*
	% within school level	*46.8%*	*53.2%*	*100%*
	% within gender	*4.5%*	*5.5%*	*5.0%*
Total	Number	1129	1061	2190
	% within school level	51.6%	48.4%	100.0%
	% within gender	100.0%	100.0%	100.0%
Chi-square = 3.071, df = 3, p>0.1				

Table 12 Gender of schooling by school management and cost type

		Male	Female	Total
Public	Count	308	294	602
	% within school type	51.2%	48.8%	100%
	% within gender	26.6%	26.8%	26.7%
Private (low cost)	Count	263	232	495
	% within school type	53.1%	46.9%	100%
	% within gender	22.7%	21.2%	22.0%
Private (medium cost)	Count	280	269	549
	% within school type	51.0%	49.0%	100%
	% within gender	24.1%	24.6%	24.3%
Private (high cost)	Count	280	267	547
	% within school type	51.2%	48.8%	100%
	% within gender	24.1%	24.4%	24.3%
Not in school	Count	29	33	62
	% within school type	46.8%	53.2%	100%
	% within gender	2.5%	3.0%	2.7%
All	Count	1160	1095	2255
	% within school type	51.4%	48.6%	100%
	% within gender	100%	100%	100%
Chi-square = 1.182, df = 4, p > 0.1				

Wards

A total of 165 children were designated as wards of the household, 7.4 percent of the total number of children. More girls than boys were designated as ward – 59.2 percent of the wards were girls, and 40.8 percent boys. In this case, there are statistically significant differences concerning school choice (Table 13). Wards are more likely to be in public school than children who are not wards (41.2 percent of wards are in public school, compared to 25.4 percent of non-wards). Similar proportions of wards and non-wards are found in low-cost private schools (23.6 percent of wards, compared to 21.8 percent of non-wards). Concerning other levels of private school, the difference is particularly great at the medium cost level – with 25 percent of non-wards attending these schools compared to only 17 percent of wards. Perhaps surprisingly,

wards are not found in greater proportions in low-income families (Table 14). There is no significant difference between the proportion of wards in poverty line or higher income families.

Table 13 Wards of households, by school type and cost

		Ward – no	Ward - yes	Total
Public	Number	526	68	594
	% ward	25.4%	41.2%	26.6%
Private (low cost)	Number	452	39	491
	%	21.8%	23.6%	22.0%
Private (medium cost)	Number	519	26	545
	%	25.1%	15.8%	24.4%
Private (high cost)	Number	515	29	544
	%	24.9%	17.6%	24.3%
Not in school	Number	59	3	62
	%	2.8%	1.8%	2.8%
All	Number	2071	165	2236
	%	100%	100%	100%
Chi-square = 23.966, df = 4, p < 0.05				

Table 14 Wards of households, by poverty line

		Ward - no	Ward - yes	Total
On or below Poverty line	Number	1089	101	1190
	%	57.5%	63.1%	57.9%
Poverty line to 2 times poverty line	Number	502	43	545
	%	26.5%	26.9%	26.5%
Over twice poverty line	Number	304	16	320
	%	16.0%	10.0%	15.6%
	Number	1895	160	2055
	%	100%	100%	100%
Chi-square = 4.283, df = 2, p> 0.1				

Family structure

Does the structure of the family make any difference to where children go to school? The researchers asked interviewees to categorise their households as one of seven types:

1. Two parents and child/children
2. Single mother and child/children
3. Single father and child/children
4. Grandparents and grandchildren only
5. Grandparents, one or more parents and children
6. Father and more than one wife and children
7. Other combination

The vast majority of interviewees (82 percent) reported that their family featured two parents and their children, while 6 percent reported that they were households led by a single mother. 'Other combinations', at 3.2 percent, were often siblings and their children together, e.g., two sisters and children of one or more of the sisters. There is a statistically significant difference between these different types of families and whether the household is in poverty or not (Table 15). While only 50 percent of families consisting of two parents and their children are on or below the poverty line, this is considerably higher for other groups apart from one. For single mothers and their children, 64 percent are living in poverty, while for grandparents and their children the figure is higher still, at 79 percent. The family structure with the highest proportion living in poverty is where the father is living with more than one wife and their children: here 86% of such households are living in poverty. Where three generations live together – grandparents, one or more parents, and grandchildren – 60 percent of households live in poverty.

Families consisting of a single father and children have roughly equal percentage living in poverty as families consisting of two parents and children (53.3 percent). The highest proportion of families living above twice poverty line are single fathers with their children – at 27 percent,

compared to 19 percent of two-parent families, 20 percent of extended families but only 10 percent of families led by single mothers. (A caveat is that there is only a small number of these single-father families, so this may be a statistical anomaly. Similarly this is true of families where fathers have more than one wife).

To summarise, family structure most closely linked with being in poverty are headed by single mothers, grandparent(s) only, and fathers with more than one wife. Conversely the family structures of two parents and their children and three-generational families – what might be termed 'nuclear' and 'extended' families – are less likely to be associated with poverty.

Moving back to the level of individual children and investigating choice of school, we can see that there are again statistically significant differences in this regard (Table 16). Two parent families are much more likely to send their children to private schools, including low-cost private schools, than to public schools: 81.7 percent of children in low-cost private schools are from two-parent families, compared to 70.8 percent of children in public schools. Conversely, single mothers, and grandparents living alone with their grandchildren are much more likely to send their children to public than to private schools: 9.6 percent of children in public schools are from single mother-led families, compared to only 3.4 percent of children in low-cost private schools. Similarly, 6.5 percent of children in public schools are from grandparent-led families (without parents present) compared to 1.8 percent in low-cost private schools. What about extended families featuring three generations? 3.6 percent of children in low-cost private schools are from such families, compared to 3.2 percent in public schools. Finally, children in families where the father has more than one wife are more likely to be low-cost private than public schools (6.0 percent of children in low-cost private schools are from such families, compared to 4.7 percent in public schools).

Table 15 Family structure and poverty

		Household description							
Poverty line monthly incomes		**Two parents**	**Single mother**	**Single father**	**Grandparent(s)**	**Grandparent(s) and parent(s)**	**Father and more than one wife**	**Other combination**	**Total**
On or below Poverty line	Count	379	37	8	23	12	12	19	490
	% within Poverty lines	77.3%	7.6%	1.6%	4.7%	2.4%	2.4%	3.9%	100%
	% within household description	50.0%	63.8%	53.3%	79.3%	60.0%	85.7%	63.3%	53.0%
Poverty line to 2 times poverty line	Count	234	15	3	4	4	2	7	269
	% within Poverty lines	87.0%	5.6%	1.1%	1.5%	1.5%	0.7%	2.6%	100%
	% within household description	30.9%	25.9%	20.0%	13.8%	20.0%	14.3%	23.3%	29.1%
Over twice poverty line	Count	145	6	4	2	4	0	4	165
	% within Poverty lines	87.9%	3.6%	2.4%	1.2%	2.4%	0.0%	2.4%	100%
	% within household description	19.1%	10.3%	26.7%	6.9%	20.0%	0.0%	13.3%	17.9%
Total	Count	758	58	15	29	20	14	30	924
	% within Poverty lines	82.0%	6.3%	1.6%	3.1%	2.2%	1.5%	3.2%	100%
	% within household description	100%	100%	100%	100%	100%	100%	100%	100%

Table 16 Family structure and type of school, by management and cost

		Type of school					
		Public	Private (low cost)	Private (medium cost)	Private (high cost)	Not in school	Total
Two parents	Count	426	407	481	477	45	1836
	%	70.8%	81.7%	87.6%	87.2%	72.6%	81.3%
Single mother	Count	58	17	20	22	1	118
	%	9.6%	3.4%	3.6%	4.0%	1.6%	5.2%
Single father	Count	15	5	7	11	0	38
	%	2.5%	1.0%	1.3%	2.0%	0.0%	1.7%
Grandparent(s)	Count	39	9	5	10	0	63
	%	6.5%	1.8%	0.9%	1.8%	0.0%	2.8%
Grandparent(s), and parent(s)	Count	19	18	7	4	6	54
	%	3.2%	3.6%	1.3%	0.7%	9.7%	2.4%
Father and more than one wife	Count	28	30	4	7	8	77
	%	4.7%	6.0%	0.7%	1.3%	12.9%	3.4%
Other combination	Count	17	12	25	16	2	72
	%	2.8%	2.4%	4.6%	2.9%	3.2%	3.2%
	Count	602	498	549	547	62	2258
	%	100%	100%	100%	100%	100%	100%
Chi-square = 172.252, df = 24, $p < 0.001$							

Mother's education

Is the level of mothers' education a good predictor of which type of school their children will go to? In the sample (Table 17), the largest proportion of children had mothers with up to senior secondary level schooling (40.2 percent). There were 18.1 percent of children with mothers who had primary-level schooling, and only 9.9 percent of children with mothers who had no schooling at all, roughly equivalent to the percentage of children with mothers who had degrees.

While there were statistically significant differences between different school types and mother's level of education (Table 18), it is remarkable how similar mother's level of education is for children in the school types that are perhaps of most interest to compare – public and low-

cost private. Here 13 percent of children in public schools have mothers with no education, the same as in low-cost private schools. Or again, 27 percent of children in public schools have mothers with up to primary schooling, very similar to the 24 percent in low-cost private schools. Similarly, 60 percent and 63 percent of children in public and low-cost private schools respectively have mothers with other levels of education. Major differences however appear between these two types of schools and the other two categories of private schools: for instance, 79 percent and 88 percent of children in medium and high cost private schools respectively have mothers who have above primary school education, while only 5 and 6 percent respectively have mothers with no education.

Table 17 Mother's education

	Frequency	%
No schooling	224	9.9%
Up to primary class 6	409	18.1%
Up to junior secondary	170	7.5%
Up to senior secondary	907	40.2%
Trade/skilled apprenticeship	45	2.0%
Vocational tech diploma	160	7.1%
Bachelor's degree	245	10.9%
Master's degree	47	2.1%
Professional qualification	6	0.3%
No mother present	42	1.9%
Total	2255	100%

Table 18 Mother's education and children's school type, by management and cost

		Public	Private (low cost)	Private (medium cost)	Private (high cost)	Not in school	Total
No Education	Number	76	65	25	32	26	224
	%	12.6%	13.1%	4.6%	5.9%	41.9%	9.9%
Up to Primary	Number	163	118	89	32	7	409
	%	27.1%	23.7%	16.2%	5.9%	11.3%	18.1%

Other	Number	362	315	435	481	29	1622
	%	60.2%	63.3%	79.2%	88.3%	46.8%	71.9%
All	Number	601	498	549	545	62	2255
	%	100%	100%	100%	100%	100%	100%

Chi-square = 227.824, df = 8, p = 0.000

Family characteristics – a descriptive summary

Table 19 summarises a range of variables that were explored in the study. It is again particularly interesting to note differences and similarities between children enrolled in public and low-cost private schools. First, there are categories in which students attending low-cost private schools and public schools appear very similar, yet completely different from students attending other types of private school or who are out of school. This applies for instance to the percentage of children whose primary earners are on a monthly salary (25 percent public, 26 percent low-cost private), mothers with no schooling (both 13 percent), the number of bedrooms in the house (both 1.7 percent), number of cellphones in the family (2.4 in public, 2.3 in low-cost private) and the percentage with a car (16 per cent in public and 17 percent in low-cost private). While similar to each other, each of these figures is very different for other types of private school or for out of school children (for instance, 32 percent and 42 percent of children in medium-cost and high-cost private schools respectively have main earners on a monthly salary, while 29 percent and 59 percent of children attending medium-cost and high-cost private schools respectively are in car-owning families).

Importantly, this similarity extends to the total family income per month (Naira 47,093 per month for public school families, compared to Naira 49,944 for low-cost private school families) and even monthly per capita income (Naira 7,961 for public compared to N 8,673 for low-cost private). Again, in both cases there are large differences between public and low-cost private schools and the other school types.

However, there are certain characteristics which show dramatic differences between children in low-cost private and public schools. Notably, as indicated above, children in low-cost private schools are more likely than students in public schools to be in a two-parent family structure (81.7 per cent compared to 70.8 per cent), while they are much more likely to have a father who has up to a senior secondary school education (47.4 per cent compared to 35.1 per cent). (Low-cost private school mothers are also more likely than public school mothers to have a senior secondary school education, although the difference is less pronounced). In terms of the kinds of homes children live in, mostly (as noted above) there are similarities between where children from public and low-cost private schools live. However, there is a large difference in whether the family does not have a toilet at home – this is true for 3.5 per cent of public school children, compared to only 0.2 per cent of low-cost private school children.

Table 19 Descriptive summary of family characteristics

Note: all numbers are percentages unless indicated by #

Item	Public	Private (low cost)	Private (medium cost)	Private (high cost)	Not in School	Total
Language spoken at home						
English	11.3	14.7	18.4	43.7	11.3	21.6
Yoruba	62.0	59.8	58.8	36.9	37.1	54.0
Igbo	13.0	10.6	14.0	10.4	1.6	11.8
Egun/Awori	3.3	5.8	0.9	1.8	35.5	3.8
Hausa	3.3	0.2	2.4	1.5	1.6	1.9
Other	7.1	8.8	5.5	5.7	12.9	6.9
Family structure						
Two parents	70.8	81.7	87.6	87.2	72.6	81.3
Single mother	9.6	3.4	3.6	4.0	1.6	5.2
Single father	2.5	1.0	1.3	2.0	0.0	1.7
Father and two or more wives	4.7	6.0	0.7	1.3	12.9	3.4
Grandparent(s) only	6.5	1.8	0.9	1.8	0.0	2.8
Grandparent(s) and parents	3.2	3.6	1.3	0.7	9.7	2.4
Other	2.8	2.4	4.6	2.9	3.2	3.2
Employment status of main earner						
Employed, monthly salary	24.6	25.8	32.3	41.5	17.7	30.6
Employed, weekly pay	1.0	0.4	0.2	0.0	0.0	0.4
Employed, daily pay	3.5	5.4	3.1	1.5	8.1	3.5
Self-employed/trader	41.4	37.0	40.9	36.0	46.8	39.1
Self-employed/craftsman	18.6	24.9	18.2	16.0	14.5	19.2
Not employed & not available	1.5	0	0	0	1.6	0.4
Not employed & available	2.0	1.0	.4	.6	3.2	1.1
Unable to work	0	0	0	0	0	0
Retired	2.7	2.2	.9	1.1	.0	1.7
Student	0	0	0	0	0	0
Other	4.8	3.2	4.0	3.3	8.1	4.0
Total monthly per capita income#	7961	8673	12616	31439	5331	14596
Total family income per month#	47093	49944	70562	172675	39862	82342
Father's years of schooling						
None	8.7	6.6	1.8	3.1	25.8	5.7
Primary only	16.3	14.3	14.2	3.1	25.8	12.4
Up to junior secondary	7.5	3.4	2.2	0.9	11.3	3.8

Item	Public	Private (low cost)	Private (medium cost)	Private (high cost)	Not in School	Total
Up to senior secondary	35.1	47.4	46.6	30.0	25.8	39.1
Apprenticeship	1.2	1.2	1.3	0.4	0.0	1.0
Vocational diploma	8.0	7.4	9.8	11.7	3.2	9.1
Bachelor's degree	7.7	11.0	12.8	31.3	1.6	15.2
Master's degree	1.5	1.8	5.1	12.1	3.2	5.1
Doctorate	0.0	0.0	0.0	0.5	0.0	0.1
Professional degree	0.2	.2	1.1	0.9	0.0	0.6
No Father Present	14.0	6.6	5.1	5.9	3.2	7.9
Mother's years of schooling						
None	12.6	13.1	4.6	5.9	41.9	9.9
Primary only	27.1	23.7	16.2	5.9	11.3	18.1
Up to junior secondary	9.0	10.0	6.6	3.9	14.5	7.5
Up to senior secondary	36.4	42.6	48.8	35.0	27.4	40.2
Apprenticeship	2.0	1.2	2.4	2.6	0.0	2.0
Vocational diploma	3.5	3.6	9.3	12.7	1.6	7.1
Bachelor's degree	5.8	4.0	8.6	25.9	3.2	10.9
Master's degree	0.3	0.8	2.2	5.3	0.0	2.1
Doctorate	0	0	0	0	0	0
Professional degree	0.2	0.0	0.2	0.7	0.0	0.3
No mother present	3.0	1.0	1.3	2.2	0.0	1.9
Meals eaten per day						
Two	8.9	5.0	3.3	9.6	12.9	6.9
Three	81.9	86.3	85.2	79.0	71.0	82.7
More than 3	9.2	8.7	11.5	11.4	16.1	10.4
Bedrooms#	1.7	1.7	1.7	2.2	1.8	1.8
Toilet access						
No Toilet	3.5	0.2	.9	.4	6.5	1.5
Outside Toilet	66.2	67.1	57.9	28.2	72.6	55.3
Inside Toilet	30.3	32.7	41.2	71.5	21.0	43.2
Number of cellphones#	2.4	2.3	2.6	3.1	2.4	2.6
Number of TVs#	1.2	1.3	1.2	1.4	1.3	1.3
Household assets						
Generator	61.1	64.5	76.1	83.9	71.0	71.3
Refrigerator	43.5	47.8	60.4	83.8	24.2	57.8
Motorbike	8.0	9.7	9.5	2.9	11.3	7.6
Car	15.9	17.4	28.8	58.5	9.7	29.6

5. School Choice, by level of schooling and income

In Chapter 3 we examined the proportions of children attending different cost levels of private schools. In this chapter, we extend this analysis by looking at how the proportions of children in different school types varies by the level of schooling (pre-primary, primary and secondary) and by family poverty levels.

School choice and schooling level

First, we link our discussion of affordability of private schools with the type of schools chosen for children by level of schooling. (The caveat about non-complete coverage of children in JSS and SSS must be noted here). To answer this question, the analysis of Chapter 3 was repeated, this time separately for three different levels, pre-primary, primary and secondary (JSS/SSS). Table 20 shows the breakdown of the different school types by these age groups, illustrated graphically in Figure 2. We can see that public provision is highest at the Secondary level, and lowest at the pre-primary level. Low-cost private schools have the highest proportion of pre-primary children, and roughly one-quarter of all primary children. Only a small percentage (4 percent) attends low-cost private secondary schools.

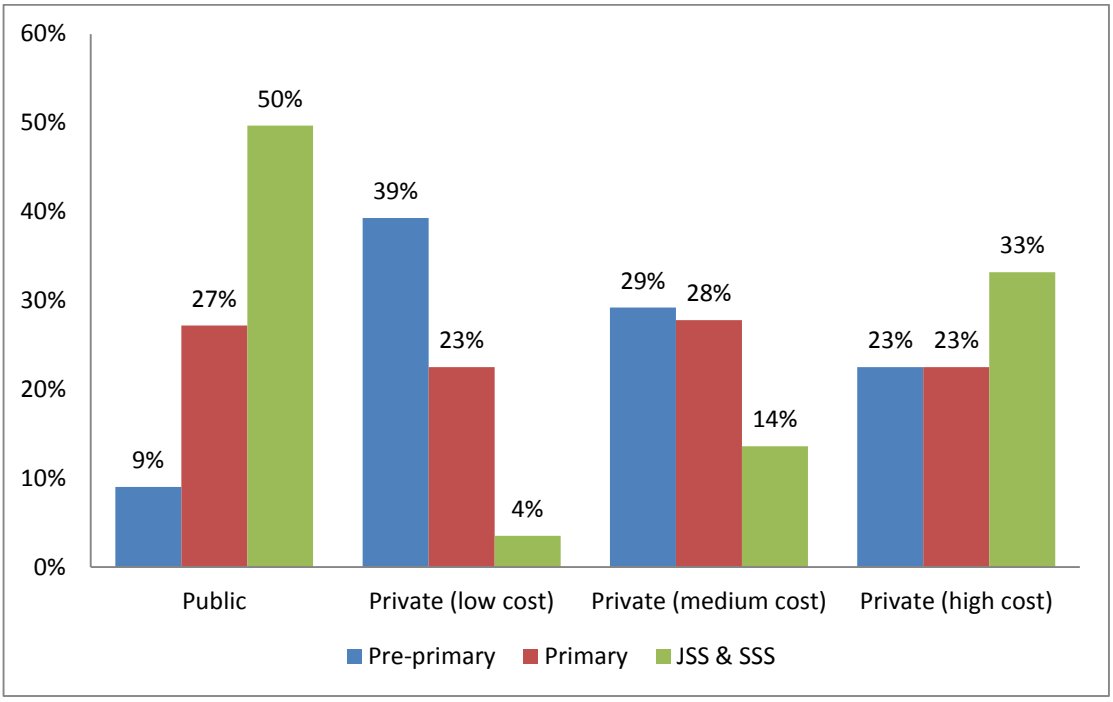
The reason for this very low enrolment in low-cost private secondary schools may simply be lack of supply. Anecdotal evidence reported that secondary private schools have much higher start-up and running costs, in part because there are many more regulations to meet. This means that there are very few low-cost secondary schools available, and may not reflect any lack of demand for these schools.

Table 20 School choice and school type, by school level

	Number of children	Public	Private (low cost)	Private (medium cost)	Private (high cost)	TOTAL
Pre-primary	568	9.0%	39.3%	29.2%	22.5%	100%
Primary	1140	27.2%	22.5%	27.8%	22.5%	100%

JSS & SSS	485	49.7%	3.5%	13.6%	33.2%	100%
Totals	2193	27.5%	22.7%	25.0%	24.9%	100%

Figure 2 School choice of school type, by school level



School choice by income

We can also look at school choice including both school level and family income. Figures 3 to 5 extend what was shown in Figure 1, disaggregating school choice by family income deciles for each level of schooling, pre-primary, primary and secondary. These graphically reveal the following key points:

- For the pre-primary group, public school is not much used, but low-cost private schools are popular, decreasing with higher income. High-cost private school usage increases with income, and medium-cost private schools are an option for middle to high income

families. Notice that once the 'Poverty-line' bar is crossed, the incidence of usage of high-cost private schools climbs noticeably, while that for low-cost private schools and public schools declines at a similar rate.

- For the primary age group, it is noticeable how closely the public and low-cost private school lines follow each other, and in particular how both decline in a very similar way once the Poverty-line bar has been crossed. High-cost private schools become increasingly popular with higher income, with usage of these growing sharply once the Poverty-line bar has been crossed.
- In the JSS and SSS group, public schools tend to dominate, except for the highest per capita income groups, where high-cost private schools take over the lead. There are very few low or medium cost private schools in this category, so this may be an issue of lack of supply rather than lack of demand (for there is little reason to suggest that parents would view this level of schooling any differently from the other levels, where demand for private education is high). Again, note that once the Poverty-line bar is crossed, the decline of public education and increase of high-cost private is most noticeable.

Figure 3 School choice, by school type and per capita income: Pre-Primary

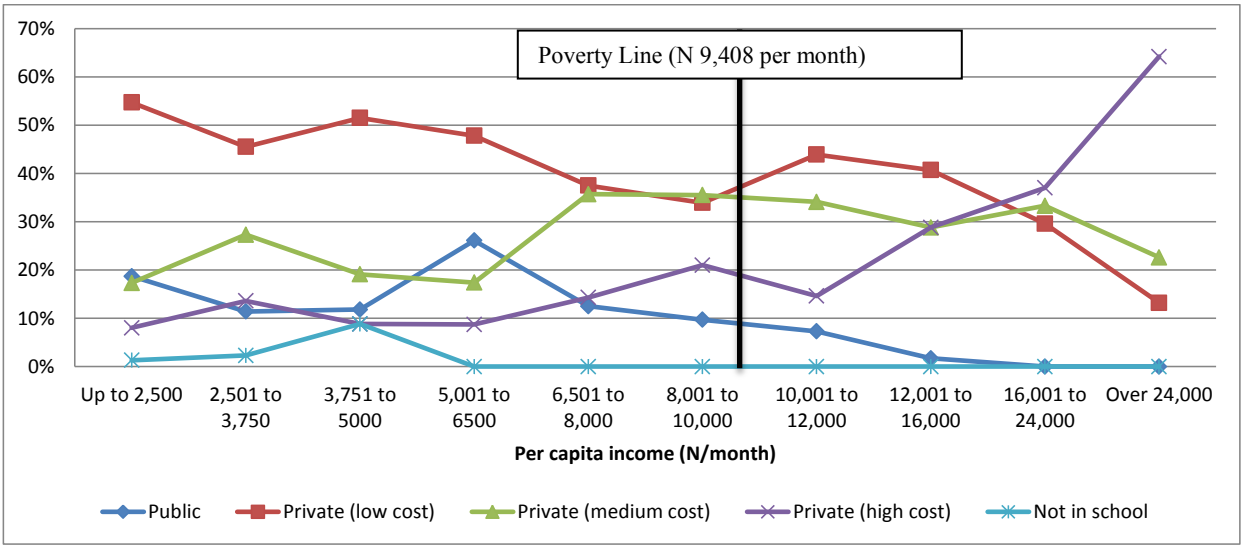


Figure 4 School choice, by school type and per capita income: Primary

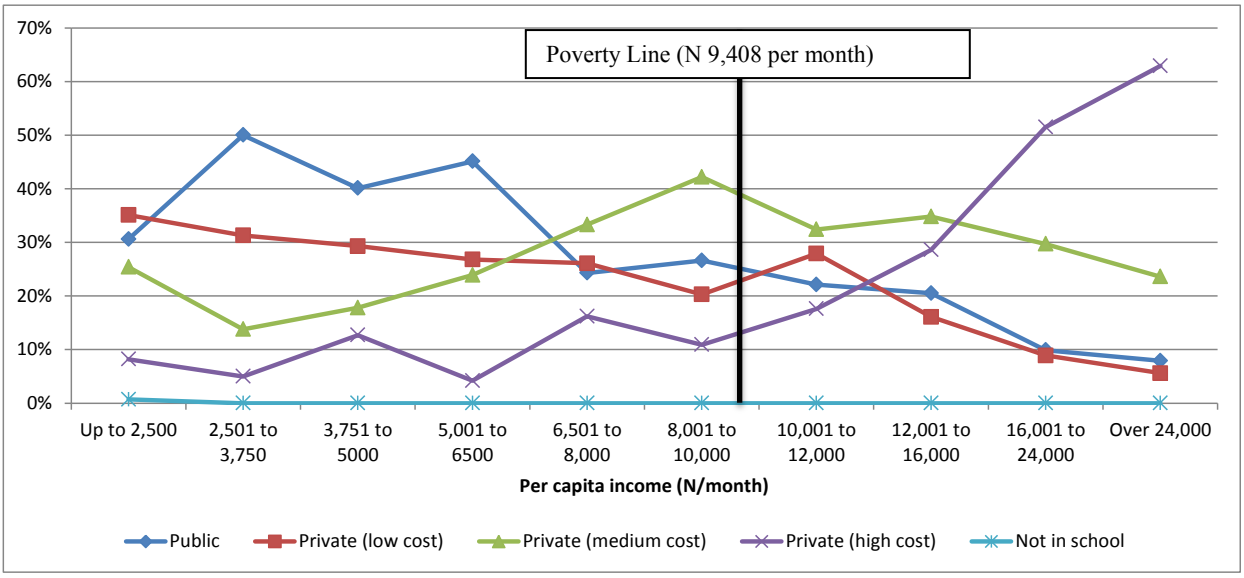
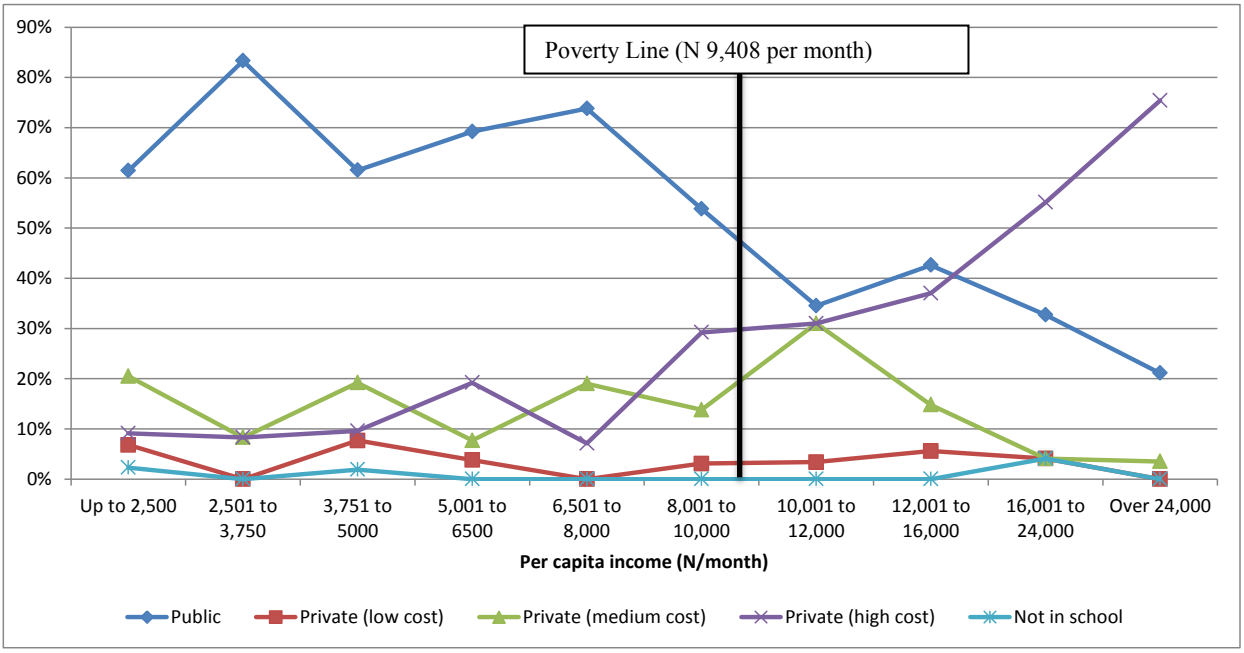


Figure 5 School choice, by school type and per capita income: Secondary – JSS & SSS



6. Schooling costs – comparing public and private

We have examined the affordability of private schools, defining the terms 'low cost', 'medium cost' and 'high cost' private schools to reflect their affordability. These terms reflected the costs of the total fees required by a private school. But there are other costs to parents, including uniforms, books, food etc. These – and other "levies" – are also costs incurred in public schools. This chapter explores the additional costs of schooling in both public and private schools, enabling us to compare total costs across both sectors.

Costs of public schooling

Public schools have costs for families to bear. While they have no official fees, many charge other levies, such as exam fees, PTA fees, development fees, etc. Thus we can investigate public schools under the same cost categories as private (Table 21). As expected, the vast majority (94.9 percent) of children at public schools come in as equivalent to 'low cost' fee payers. However, it may be worth noting that 5.1 percent do not. Indeed, 3.8 percent of those using public secondary schools incur costs that would classify the schools as 'high cost' if they were private, and a further 3.3 percent as medium cost.

Table 21 Costs at public schools – fee equivalent items

		Cost at public schools			Total
		Low cost	Medium cost	High cost	
Pre-primary	Count	49	2	0	51
	% within Level of Schooling	96.1%	3.9%	0.0%	100%
	% within Cost at public schools	8.7%	12.5%	0.0%	8.6%
Primary	Count	293	6	5	304
	% within Level of Schooling	96.4%	2.0%	1.6%	100%
	% within Cost at public schools	52.0%	37.5%	35.7%	51.2%
Secondary (JSS/SSS)	Count	222	8	9	239
	% within Level of Schooling	92.9%	3.3%	3.8%	100%
	% within Cost at public schools	39.4%	50.0%	64.3%	40.2%
Total	Count	564	16	14	594
	% within Level of Schooling	94.9%	2.7%	2.4%	100%
	% within Cost at public schools	100%	100%	100%	100%

Extra costs in private and public schools

In the earlier chapter, we also only looked at total costs that could be classed as 'fees', including such items as examination fees, PTA fees and so on. But there are other costs of sending a child to school, including items such as school uniform, PE kit, school books, school stationery, food, transport, clubs and sports fees, also additional (private) tuition outside of school. We obtained data on these categories for 1,490 (65 percent) students. Using the same categories as we used earlier for total fees, we can categorize this extra expenditure as "lower extra spend" (up to Naira 25,000 per year), "medium extra spend" (between Naira 25,000 and 50,000) and "higher extra spend" (above Naira 50,000 per annum). Something interesting emerges here (Table 22): 27.8 percent of those children attending public schools are in the 'higher extra spending' category, while 41.0 percent are in the medium extra, and 31.2 percent in the lower category. However, children in low-cost private schools have overall much lower extra spend than those in public schools – with 39.6 percent in the lower spend category, 39.0 percent in the medium and only 21.3 percent in the high spend category. (Note the 'not in school' category was spending funds on outside tuition, so is included here).

Table 22 Costs of 'extra spend' in public and private schools

		Categories of extra costs			Total
Type of school		**Lower extra spend**	**Medium extra spend**	**Higher extra spend**	
Public	Number	83	109	74	266
	% within school type	31.2%	41.0%	27.8%	100%
	% within extra cost categories	20.5%	18.6%	14.8%	17.9%
Private (low cost)	Number	130	128	70	328
	% within school type	39.6%	39.0%	21.3%	100%
	% within extra cost categories	32.2%	21.8%	14.0%	22.0%
Private (medium cost)	Number	105	202	129	436
	% within school type	24.1%	46.3%	29.6%	100%
	% within extra cost categories	26.0%	34.4%	25.9%	29.3%
Private (high cost)	Number	86	145	222	453
	% within school type	19.0%	32.0%	49.0%	100%
	% within extra cost categories	21.3%	24.7%	44.5%	30.4%
Not in school	Number	0	3	4	7
	% within school type	0.0%	42.9%	57.1%	100%
	% within extra cost categories	0.0%	0.5%	0.8%	0.5%
Total	Number	404	587	499	1490
	% within school type	27.1%	39.4%	33.5%	100%
	% within extra cost categories	100%	100%	100%	100%

Total education expenses for private and public schools

This raises the question of, if we combined the total fee costs and total other costs, there would be overlap between the entire cost of sending a child to low-cost private schools and to public schools? Table 23 shows the results. In this table, the quintiles are as follows:

- 1st Quintile – up to Naira 42,540 per annum
- 2nd Quintile – between Naira 42,541 to 62,600 per annum
- 3rd Quintile – between Naira 62,601 to 87,470 per annum
- 4th Quintile – between Naira 87,471 to 133,850 per annum

- 5th Quintile – above Naira 133,851 per annum

It is interesting to note that while low-cost private schools are clearly more expensive than public schools, the total amounts spent on education for children in public and low-cost private schools do overlap considerably. In fact, a larger percentage of children in public schools are in the highest quintile of expenditure compared to those in low-cost private schools (3.4% compared to 1.5%), although both are very small percentages, of course. At the lower end, it is worth noting that there are 22.0% of public school children compared to 35.3% of low cost private school children in the second quintile, and 9.8% compared to 18.7% in the third quintile.

Figures 6 and 7 show the same information graphically, depicting the overlap between public and private schools in slightly different ways. Figure 6 is a straightforward bar chart showing the percentage of children from each school type in the total expenditure quintiles. Figure 7 more ambitiously shows how each total education expenditure quintile is shared by the percentage of children in each school type. For instance, at the far right of the chart, children in high-cost private schools make up almost 100% of the highest expenditure quintile, while at the far left of the chart, those in public schools make up less than half of the children in the lowest expenditure quintile (the remainder being made up of children in the low-cost and medium-cost private schools).

Table 23 Total education expenses for public and private schools

		Total education expenses by quintiles					Total
Type of school		**1.00**	**2.00**	**3.00**	**4.00**	**5.00**	
Public	Count	154	58	26	17	9	264
	% within Type of school	58.3%	22.0%	9.8%	6.4%	3.4%	100.0%
	% within Total education expenses by quintiles	52.0%	19.4%	8.8%	5.7%	3.0%	17.8%
Private (low cost)	Count	124	115	61	21	5	326
	% within Type of school	38.0%	35.3%	18.7%	6.4%	1.5%	100.0%
	% within Total education expenses by quintiles	41.9%	38.5%	20.7%	7.1%	1.7%	22.0%
Private (medium cost)	Count	18	120	168	124	6	436
	% within Type of school	4.1%	27.5%	38.5%	28.4%	1.4%	100.0%
	% within Total education expenses by quintiles	6.1%	40.1%	57.1%	41.8%	2.0%	29.4%
Private (high cost)	Count	0	5	39	135	274	453
	% within Type of school (expanded)	0.0%	1.1%	8.6%	29.8%	60.5%	100.0%
	% within Total education expenses by quintiles	0.0%	1.7%	13.3%	45.5%	92.6%	30.6%
Not in school	Count	0	1	0	0	2	3
	% within Type of school (expanded)	0%	33%	0%	0%	67%	100%
	% within Total education expenses by quintiles	0%	0%	0%	0%	1%	0%
Total	Count	296	299	294	297	296	1482
	% within Type of school (expanded)	20.0%	20.2%	19.8%	20.0%	20.0%	100.0%
	% within Total education expenses by quintiles	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Figure 6 Percentages of children in total education expenditure quintiles

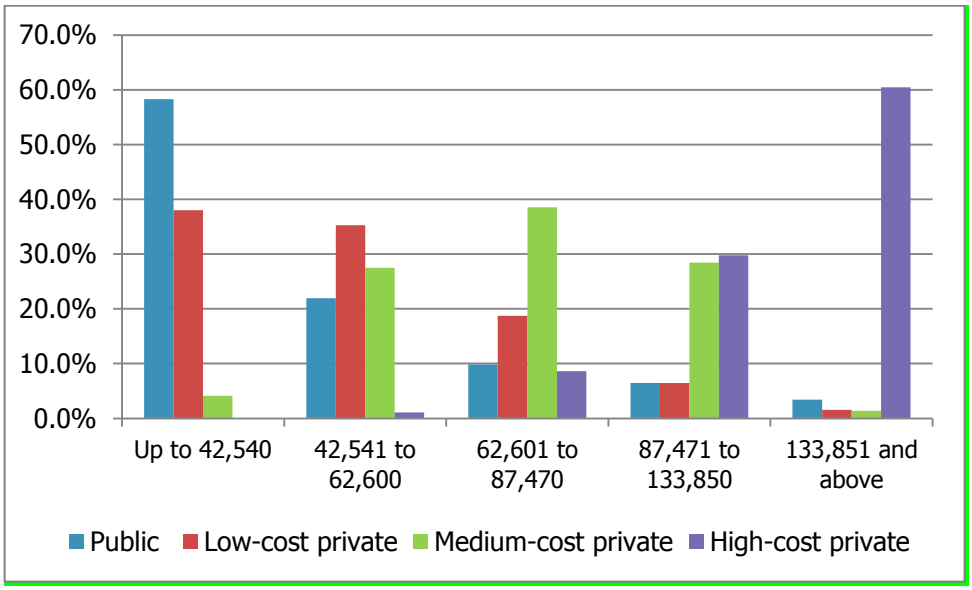
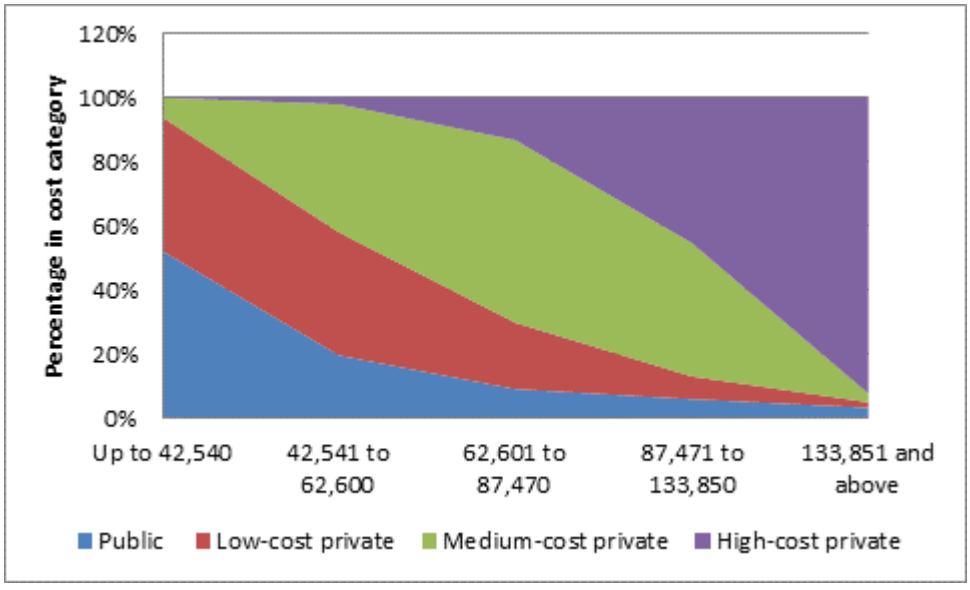


Figure 7 Percentage of children in total education expenditure categories by school type



7. Choosing a School – who decides and how?

How do parents and guardians make decisions about choice of school for their children? This chapter addresses three important questions: how many schools do parents and guardians investigate? What sources of information do they garner about these schools? And who makes the decisions using this information?

How many schools are investigated?

We asked the interviewee to reflect on how many different schools had been investigated when choosing a school, for each child in their family. (Some out of school children's parents responded to this question. Presumably this was because a school had been chosen for their child, but they were unable to send their child to it currently. We have included these figures for completeness). Table 24 shows the information for the first child in the family only – it is more or less identical for all children.

Here we can see the phenomenon that parents tend to stay within their own camp, as it were. A large majority (74.1 per cent) of families who sent their oldest child to public school didn't visit any private schools to inform their school choice decision; conversely, even larger percentages of parents who chose private schools didn't visit any public schools – true of 83.6 per cent (low cost and medium cost) and 85.9 per cent (high cost) families.

For those choosing private schools, around third of each private school type looked at two private schools, while one fifth of parents choosing high cost private schools visited three private schools for their oldest child. The mean number of private schools visited by those who chose private school was not high in any case, but did sharply increase depending on the price bracket – ranging from 1.38 schools for those who eventually chose low-cost private, to 1.59 for medium cost and 2.1 for high cost.

Table 24- Number of Public and Private Schools visited, by Parents who sent their Children to Different School Types (oldest child)

Item	Public	Private (low cost)	Private (medium cost	Private (high cost)	Not in School	Total
Number of Public schools visited						
0	44.8%	83.6%	83.6%	85.9%	66.7%	71.4%
1	27.1%	9.4%	13.2%	9.9%	0.0%	16.2%
2	20.8%	6.3%	2.3%	3.8%	33.3%	9.6%
3	6.0%	0.0%	0.9%	0.4%	0.0%	2.3%
More than 3	1.3%	0.6%	0.0%	0.0%	0.0%	0.5%
Mean Number of Public schools visited	0.92	0.25	0.2	0.2	0.7	0.4
Number of Private schools visited						
0	74.1%	30.8%	21.4%	13.0%	33.3%	38.1%
1	16.1%	20.8%	28.2%	23.7%	33.3%	21.7%
2	6.3%	32.7%	29.1%	29.4%	33.3%	22.3%
3	2.5%	13.2%	15.5%	20.6%	0.0%	12.2%
More than 3	0.9%	2.5%	5.9%	13.4%	0.0%	5.7%
Mean Number of Private schools visited	0.41	1.38	1.59	2.1	1.0	1.29

Who decides?

In order to focus the discussion on this and the next question, we asked the interviewee to think only of their *oldest* child *currently in school*: what were the three most important sources of information they got about the school? (They were allowed to choose three from a list of 13). And who was involved in the decision making process to choose the school? (They were allowed to tick as many boxes as they liked describing nine possible decision-makers.)

Most families (80 percent of the sample), as we've already noted, feature two parents and children; it is not surprising therefore it was mostly reported that parents made the decisions about their children's education (Table 25). In fact, the vast majority of families reported that both mothers and fathers jointly made the decisions: Mothers are described as an educational decision maker for around 73 percent, 87 percent and 88 percent of children in low-cost, medium cost and high cost private schools respectively, and 78 percent of children in public schools. Similarly, fathers are described as an educational decision maker in 87 percent, 85 percent and 90 percent of children in low-cost, medium cost and high cost private schools respectively, and 79 percent of children in public schools. Only small percentages reported other decision makers. It was noticeable that grandmothers were reported as decision makers at roughly three times the rate of grandfathers for public, low-cost private and high-cost private schools (but at the same rate for medium cost private).

Table 25 Schooling Decision Making Process by Type of School Oldest Child Attends, Household Level

Schooling decision makers	Public	Private (low cost)	Private (medium cost)	Private (high cost)	No School
Percentages of families who responded to the question.					
Mother	78.0%	72.6%	86.6%	87.5%	90.0%
Father	78.6%	86.6%	84.8%	90.2%	80.0%
Child	3.1%	1.3%	1.4%	1.5%	.0%
Grandmother	6.2%	7.6%	1.4%	4.2%	.0%
Grandfather	2.5%	3.2%	1.4%	1.1%	.0%
Other relative	2.5%	1.9%	3.2%	.8%	.0%
Legal guardian	1.2%	.6%	.0%	.0%	.0%
Staff of previous school	1.2%	.0%	.9%	1.1%	.0%

(Multiple responses were allowed and so total percentages will exceed 100).

Sources of information

How did families gain their information about the schools they chose? Table 26 shows what we found. School visits featured most heavily. The largest percentage of responses (29.1 percent) pointed to school visits (for 75.5 percent of families). The next most common response (20.8

percent) was talking to families' networks of relatives, friends and neighbours (53.9 percent of families). Third most common was observing children who went to the school (13.7 percent of responses, representing 35.5 percent of families). Note that this doesn't necessarily mean that they went to the school to do this, but that they might observe children in their neighbourhoods, or to and from school.

Interestingly, parents choosing each different management type (public, low-cost, medium-cost and high cost private) had the same order of priority for these three most common responses. In all cases it was first a school visit that got the most responses, followed by talking to the network of friends, relatives and neighbours, and finally observing children.
On the most important overall feature, it is interesting how similar choices of public school and low cost private schools are, compared to medium cost and high cost private schools, which are again similar: school visits were made by 62.4 percent and 66.5 percent for children in public and low-cost private schools respectively, compared to 74.1 percent and 76.3 percent for children in medium and high cost private schools respectively. However, it is notable how important a part of decision-making 'observing children' was to parents of children choosing low-cost private schools: 42.2 percent of these parents said they had observed children, compared to 29.8 percent, 33.2 percent and 30.1 percent of parents in public, medium and high cost private respectively.

It is also worth noting one other major difference: while investigating printed material about the school was quite a low response (19.3 percent of families said they did this), only 9.0 percent of families using public schools reported this, compared to roughly equivalent percentages in each of the private school types (21.7 percent, 21.4 percent and 22.9 percent).

The discussion in this chapter is extended further in Chapter 13, where we conduct more detailed statistical analysis and regressions on the same data.

Table 26 Sources of information for school choice

Sources of info about school	Public School	Private			Percentage of responses	Percentage of cases
		Low Cost	Medium Cost	Higher Cost		
Relatives/friends/neighbours	47.5%	49.7%	52.3%	50.0%	20.8%	53.9%
Religious/community leaders	8.4%	7.5%	8.2%	7.1%	3.3%	8.5%
Children who attend	24.5%	18.6%	18.2%	19.9%	8.7%	22.6%
School visit	62.4%	66.5%	74.1%	76.3%	29.1%	75.5%
Observed children	29.8%	42.2%	33.2%	30.1%	13.7%	35.5%
Observed teachers	18.3%	23.0%	24.5%	16.2%	8.3%	21.6%
Test score performance	15.8%	9.3%	20.9%	22.9%	7.5%	19.4%
Printed info about school	9.0%	21.7%	21.4%	22.9%	7.4%	19.3%
Internet info about school	0.3%	0.0%	0.0%	1.1%	0.2%	0.4%
Taught at school	0.3%	0.0%	0.0%	1.1%	0.5%	1.3%
Attended school	2.5%	0.0%	0.9%	0.8%	0.5%	1.3%
No information obtained	17.4%	10.6%	8.6%	6.8%		

8. Reasons for School Choice

We have seen the sources of information for school choice for families, who gets to decide within the family, and how many schools they tend to investigate. We turn now to explore the kinds of reasons that guide their choices. This chapter explores the main reasons families give for choosing the schools for each of their children, analysing these in the context of levels of schooling and school management type. We then ask what are the most important reasons that guide parents overall in making school choices; if parents and guardians could pick only one reason, what would it be?

Reasons for school choice – by management type

The interviewee was asked to consider the *three main reasons* for choosing the current school *for each child* in their household out of a total of 10 options. Table 27 shows the 10 options and the percentage giving each response, overall and by school type.

I have highlighted **in bold** the three highest percentages in each column, that is, the three most commonly reported reasons for each school management type. There are interesting contrasts here. Overall, the three major reasons are clear: schools should be 'close to my home' (52.3 per cent), 'better quality than others' (49.6 per cent) and have 'better quality teachers than others' (46.6 per cent). Looking at different school types, however, we see a difference this time between low-cost and medium cost private schools on the one hand, and public and high cost on the other:

The overall top three reasons are also shared by parents using low-cost and medium cost private schools (although 2nd and 3rd place are in a different order for each). Overwhelming for parents choosing low-cost private schools, closeness to home is the most important reason, chosen by 61.7 per cent; a smaller percentage choosing medium cost private schools gives the same reason (54.4%). For parents choosing public schools, however, while being close to home is the most important reason (given for 52.3 per cent of children), it is closely followed by 'the discipline is good' (48.3 per cent) and the 'school reputation is good' (43.0 per cent). 'The discipline is

good' is also rated highly by parents using high-cost private schools – in second place at 53.1 per cent of children. However, for high-cost private schools, the most common reason given is that 'it's a better quality school than others' (57.7 per cent).

Table 27 Reasons for School Choice, by management type

	Percentage giving this option				
Option	**Public**	**Private (low-cost)**	**Private (medium cost)**	**Private (high cost)**	**Overall**
It's a better quality school than others	42.8%	**45.1%**	**53.1%**	**57.7%**	**49.6%**
It has better quality teachers than others	38.3%	**46.1%**	**49.8%**	**53.1%**	**46.6%**
The fees and other costs are affordable	41.8%	36.5%	30.1%	25.7%	33.6%
It is close to my home	**52.3%**	**61.7%**	**54.4%**	41.9%	**52.3%**
The school is safer	12.8%	15.6%	9.5%	10.7%	12.0%
The discipline is good	**48.3%**	32.0%	40.5%	**43.6%**	41.5%
The headteacher/proprietor is good	2.3%	17.0%	10.0%	6.4%	8.6%
The school reputation is good	**43.0%**	28.9%	36.7%	42.5%	38.1%
Children learn English better	6.2%	8.2%	7.7%	6.4%	7.1%
The school is responsive when I raise problems	2.0%	2.5%	2.7%	6.3%	3.4%

N=2179 for each category

Reasons for school choice – by levels of schooling

The reasons why parents choose their child's school also vary somewhat by the child's level of schooling. Table 28 shows the same possible reasons by level of schooling. (The overall percentages are very slightly different from those in the previous table because of a different set of missing cases). Again, the top three reasons for each school level (i.e., for each column) have

been highlighted **in bold**. The major difference here is that while proximity to home is the most important reason for choice of pre-primary and primary school (58.2 per cent pre-primary and 53.9 per cent for primary), it disappears from the top three reasons for choice of JSS and SSS (although it is still important – given as a reason for 42.7 per cent of JSS and 36.6 per cent of SSS students).

For all school levels, the quality of the school and its teachers feature in the top three reasons. While the quality of the teachers is roughly constant for all levels of schooling (around 46 to 49 per cent of students), "it's a better quality school" increases sharply, from 47.6 per cent for pre-primary to 60.7 per cent for SSS students. For secondary school students, For JSS and especially SSS students, the school's reputation also now features in the top three choices, reported on behalf of nearly half of all students at these school levels (but just over a third for pre-primary and primary levels). Finally, we can note that the issue of affordability as a reason for school choice declines as the child progresses through the school levels – reported by parents of 34.9 per cent for pre-primary, 33.9 percent of primary, declining to 32.0 per cent for JSS and 26.8 per cent for SSS.

Table 28 Why Parents Choose Their Child's School by Child's Schooling Level

	Pre-Primary	Primary	JSS	SSS	Total
Reason given	%	%	%	%	%
It's a better quality school than others	**47.6**	**48.8**	**52.3**	**60.7**	**49.7**
It has better quality teachers than others	**46.5**	**46.6**	**45.8**	**49.1**	**46.6**
The fees and other costs are affordable	34.9	34.8	32.0	26.8	33.9
It is close to my home	**58.2**	**53.9**	42.7	36.6	**52.2**
The school is safer	12.4	12.9	10.2	7.1	12.0
The discipline is good	37.9	40.7	47.7	48.2	41.6
The headteacher/proprietor is good	9.0	8.9	6.8	8.0	8.5

The school reputation is good	34.9	36.3	**45.1**	**49.1**	38.1
Children learn English better	7.8	7.7	4.9	3.6	7.0
The school is responsive when I raise problems	3.9	2.7	4.4	3.6	3.3

N=2193 for each category

Reasons for school choice - by management type and *level*

Thus far we have explored separately the reasons for school choice by school management type – private or public – and by level of schooling – pre-primary and secondary. But it is possible that the reasons for school choice will vary by both school management type and level of schooling simultaneously. Tables 29 to 31 show the results of this combined analysis. The interpretation of the tables is as follows:

At **pre-primary level**, the most popular reasons given for choosing public schools are their affordability (54 percent), the proximity to home (58 percent) and that the discipline is good (42 percent). For low-cost private schools, the most common reasons reflected the proximity to home (64 percent), followed by reasons concerning teacher quality (46 percent) and better quality school (44 percent). The proximity to home became less important for medium and high cost private schools although interestingly the (relative) affordability of fees and other costs was given a similar importance for each type of school.

At **primary level**, that the school was close to home was given as a reason by roughly the same percentage of parents in public and low-cost private schools (59 percent public and 61 percent low-cost private), but this became progressively less important for children in medium and high-cost private schools. The affordability of the school was given as an important reason by those using public schools (44 percent), and was also ranked highly by parents of children in low-cost private schools (38 percent), again progressively diminishing in importance as the cost of the private school grew higher. Only 39 percent of parents using public schools at this level said that they thought their choice of school was better quality than others, compared to 45 percent of parents using low-cost private schools, and 55 percent and 58 percent of parents using medium

and high-cost private schools. A similar ranking was found for another quality issue, that the school had better quality teachers than others.

For Secondary school level (JSS and SSS), as noted above in terms of availability and hence student numbers, the major choice for families is between public and high-cost private school. Regarding this choice, affordability was given as an important reason by 37 percent of families using public schools, but only 21 percent of families using high-cost private schools. Conversely, the quality of the school was given as a reason by 62 percent of families using private schools but 49 percent of families using public schools. However, higher proportions of parents using public schools suggested that the school reputation is good (48 percent) compared to 44 percent of parents using high-cost private schools. Chapter 12 takes this discussion further, conducting deeper statistical analyses, including regression analysis, on the same data.

Table 29 Reasons for School Choice – Pre-primary

	Percentage giving this option				
Option	**Public**	**Low-cost private**	**Medium-cost private**	**High-cost private**	**Overall**
It's a better quality school than others	38.0	44.1	51.2	52.0	47.4
It has better quality teachers than others	36.0	45.5	45.2	55.1	46.7
The fees and other costs are affordable	54.0	34.1	31.3	33.1	34.8
It is close to my home	58.0	63.6	59.0	48.0	58.3
The school is safer	14.0	15.5	11.4	7.9	12.4
The discipline is good	42.0	34.1	41.0	38.6	37.8
The headteacher/proprietor is good	0.0	15.0	5.4	7.1	9.1
The school reputation is good	36.0	29.5	38.0	39.4	34.8
Children learn English better	10.0	7.7	8.4	6.3	7.8
The school is responsive when I raise problems	2.0	3.2	2.4	7.9	3.9

Table 30 Reasons for School Choice – Primary

	Percentage giving this option				
Option	**Public**	**Low-cost private**	**Medium-cost private**	**High-cost private**	**Overall**
It's a better quality school than others	38.7	45.0	54.7	57.9	48.9
It has better quality teachers than others	35.4	47.8	50.6	53.1	46.4
The fees and other costs are affordable	43.9	38.2	30.1	25.2	34.5
It is close to my home	58.7	60.6	53.8	41.3	53.8
The school is safer	15.1	15.5	9.2	12.2	12.9
The discipline is good	47.2	30.3	39.9	44.5	40.8
The headteacher/proprietor is good	0.7	18.7	12.0	5.5	9.0
The school reputation is good	40.0	27.9	34.5	42.9	36.4
Children learn English better	7.9	8.8	7.3	7.1	7.7
The school is responsive when I raise problems	1.3	1.6	2.8	5.1	2.7

Table 31 Reasons for School Choice – Secondary (JSS/SSS)

	Percentage giving this option				
Option	**Public**	**Low-cost private**	**Medium-cost private**	**High-cost private**	**Overall**
It's a better quality school than others	49.0	58.8	50.0	62.1	53.8
It has better quality teachers than others	42.3	29.4	57.6	51.6	47.0
The fees and other costs are affordable	36.5	41.2	27.3	21.1	30.3
It is close to my home	43.2	52.9	45.5	37.3	41.9
The school is safer	9.5	17.6	6.1	10.6	9.7

The discipline is good	51.0	29.4	42.4	46.6	47.6
The headteacher/proprietor is good	5.0	17.6	12.1	7.5	7.2
The school reputation is good	48.1	35.3	43.9	43.5	45.6
Children learn English better	3.3	5.9	7.6	5.6	4.7
The school is responsive when I raise problems	2.9	5.9	3.0	6.8	4.3

Overall, what are the most important reasons for school choice?

In the interview we asked interviewees to reflect, over and above their concerns for individual children, on what are the most important reasons for their choice of schools. For all the schools they have ever chosen for their children, would they be able to name the three most important reasons for their choice – and then pick one of these as *the* most important reason for school choice? Respondents were given a list of 26 possible reasons, which may have looked rather daunting, and taken a little time for the researchers to read through and clarify any confusions. The top six reasons were given by 25 per cent and above of interviewees – ranging from 52.5 per cent reporting 'better quality teachers', 48.7 per cent 'It is close to my home' and 47.6 per cent 'Better quality school' (Table 32). Affordability was reported by 26.7 per cent of households as being an important reason for school choice. After these six categories, no other reason had more than 5 per cent of support.

Table 32 Three most important reasons for school choice

Three most important reasons (household level)	%
Better quality teachers	52.5
It is close to my home	48.7
Better quality school	47.6
The discipline is good	43.1
The reputation is good	35.3
The fees are less than others	26.7
Children learn English better	4.7
The school will act on problems	4.2
Good facility (buildings and technology)	4.1
Good academic performance	4.1
Educational philosophy	3.2
Religious environment	2.7
Relatives/friends attend	2.4
Graduates do well	1.6
Extra-curricular activities	1.5
Small class sizes	1.0
High quality student peer group	1.0
Space was available	0.4
Small school size	0.2

N = 990 throughout, 15 missing cases

And the winner is…

Finally, what of the major reason for school choice, if the interviewee was forced to select only one? Not surprisingly, the same six reasons again stood out (no other reason garnered more than 2 per cent of support), (Table 33). In reverse order, households in the Lagos Survey distilled what they saw as the most important reason for school choice as: affordability (8.5 percent of

parents); good reputation (10.9 percent); proximity to home (12.3 percent); good discipline (13.4 percent), better quality school in general (19.5 percent); and "better quality teachers", the top reason for school choice, mentioned by 22.8 percent of respondents.

Table 33 The Top Reason for School Choice

The Top Reason for School Choice	%
It has better quality teachers	22.8
It's a better quality school	19.5
The discipline is good	13.4
It is close to my home	12.3
The reputation is good	10.9
The fees are less than others	8.5

N = 990 households

9. Moving schools

Interesting insights into school choice can be obtained by exploring cases when children moved schools (apart from for 'normal' reasons, such as graduating between schools). This chapter first describes the number of such moves made in our sample, before exploring the reasons that were given for making these moves. We then look at the same questions, disaggregating according to level of schooling, in case this should reveal any interesting dimensions.

How many children moved?

Within our dataset there were 380 (17%) cases available for analysis showing children were moved between schools. Table 34 shows how these moves were made, in terms of school type.

Most of the "movers" (339 out of 380, or 89.2 percent) came from private schools. Within this group, the vast majority (271 students, or 79.9 percent) moved to other private schools. The small number of movers from public schools (41 out of 380, or 10.8 percent) was fairly evenly split between those going to other public schools and private schools. Overall, however, about three times as many moved from private to public as from public to private.

Table 34 Types of Moves Made

		To		
		Public	Private	Total
From	Public	17 (41.5%)	24 (58.5%)	41
	Private	68 (20.5%	271 (79.9%)	339
	Total	85 (22.4%)	295 (77.6%)	**380**

Reasons for moving

A number of options were given to describe the reasons for the move, and families were asked to pick up to three. Table 35 shows the percentages giving each reason, broken down by type of

move made, that is, whether from public to public, public to private, private to public and private to private.

In each column the top three reasons are marked in bold. Of those moving **from one public school to another**, the majority (77 percent) stated this was because they had moved to a new area. Other important reasons given included the school being too far away (47 percent), the teachers not working well (35 percent), or the child being expelled (35 percent).

For those moving **from public to private**, the top reason was dissatisfaction with the child's academic performance (71 percent), followed by general dissatisfaction with the school's standards (33 percent), and then the school being too far away, teachers not working well, or the child being expelled (each 25 percent). Two other categories are worth mentioning here: the move from public to private is the *only* place where the child's unhappiness is featured: 13 percent of children were moved from public to private because the child was unhappy. Moreover, this is the *only* place where the fact that teachers were on strike is mentioned: again, 13 percent of children were moved from public to private because of this.

The overwhelming reason for moving **from private to public** was that the school was too expensive (75 percent of responses). Other than that, moving to a new area and dissatisfaction with the child's academic performance were given by some (21 percent and 15 percent respectively).

Reasons for moving from one **private school to another** tended to be more varied. These included that the school was too far away (32 percent), a move to a new area (31 percent), and the school being too expensive (28 percent). It is also notable that several quality reasons feature – general dissatisfaction (19 percent), teachers not working well (20 percent) and poor academic performance (23 percent), suggesting that parents are discerning about the relative quality of different *private* schools, and that not all private schools are perceived as of equal quality to parents.

Looking at the rows rather than columns of Table 35, in each row the reason with the highest percentage has been highlighted, this time *in italics*. It is interesting to note that while "School too expensive" was noted as the major reason for moving from private to public, it was also noted by not insignificant minorities for moves from public to public, as well as private to private. In the first case (public to public) this may indicate the prevalence of unofficial payments or higher levies than others in some schools in the public sector (as discussed in the earlier chapter). In the case of private to private, again this indicates that some parents are discriminating between private schools on the basis of cost, as well as quality as noted above.

Reasons to do with school quality (General dissatisfaction, teachers not working well, poor academic performance) were given for each type of school move: that is parents will move between public and public as well as private and private because of quality considerations. It is also interesting to note that children were moved because they were expelled in each category. The only moves that were prompted by schools closing down were private to private (3 percent), while the only moves prompted by teacher strikes were from public to private (13 percent).

Table 35 Reasons for moving child

Reason	Public to public	Public to private	Private to public	Private to Private
School too expensive	18%	0%	***75%***	**28%**
Moved to new area	***77%***	0%	**21%**	**31%**
General dissatisfaction	18%	***33%***	12%	19%
School too far away	***47%***	**25%**	12%	**32%**
School too overcrowded	6%	*17%*	2%	2%
Teachers not working well	***35%***	**25%**	10%	20%
Teachers on strike	0%	*13%*	0%	0%
School closed down	0%	0%	0%	*3%*
Poor academic performance	0%	***71%***	**15%**	23%
Poor discipline/safety	6%	*17%*	2%	2%
Child was expelled	***35%***	**25%**	10%	20%
Child was unhappy	0%	*13%*	0%	0%
Total children	**17**	**24**	**68**	**271**

Reasons for moving by level of schooling

As with previous analysis, it is interesting to see if there are any variations on the reasons for moving children according to the child's level of schooling. Again we disaggregate using the three categories of pre-primary, primary and secondary (JSS and SSS). Table 36 shows the types of moves made at each school level.

Table 36 Type of Moves by Age Group

Type of move	Pre-primary	Primary	Secondary (JSS/SSS)	Total pupils
Public to public	4%	5%	5%	17
Public to private	5%	5%	12%	24
Private to public	7%	22%	20%	68
Private to private	84%	68%	64%	271
Total pupils	**97**	**222**	**61**	**380**

In the pre-primary group, the vast majority of moves are between private schools (84% of all moves at this level). This proportion drops with level of schooling, although it is still the majority of moves at secondary level too (64%). Moves from private to public school are tiny at the pre-primary level, but are about one-fifth at both primary and secondary levels.

What about the reasons why children are moved – do these vary given the child's level of schooling? Tables 37 to 39 examine this question. Again, for each column, in each of these tables, the top three reasons given by parents are marked in bold:

Pre-primary

For pre-primary children, the top reason for moving **from public to public** was because the family moved to a new area, or the original school was too far away. Other reasons given were that teachers were not working well, or the child was expelled.

The top reason for children moving **from public to private** was the poor academic performance of the child in the public school. The other main reasons were also concerned with problems with the public school: general dissatisfaction with the school, school too overcrowded, teachers on strike, and poor discipline/safety. That the child was unhappy in the public school was also a reason given here.

For moving **from private to public** the top reason given was that the private school was too expensive. Other reasons included general dissatisfaction with the private school, that the family moved to a new area and that the school was too far away.

Moving **from private to private** was the most common form of move at this schooling level (with five times more moves than all the other types put together). The most given reasons was that the original school was too far away, or that it was too expensive, or that the family moved to a new area.

Primary

For moving from **public to public** school, the most common reason given was that the family moved to a new area, followed by teachers not working well, the school was too far away, and the child was expelled.

The top reason for moving from **public to private** school was the poor academic performance of the child. This was followed by general dissatisfaction with the school, and the school being too far away.

For moves from **private to public**, the most common reason given was that the school was too expensive. Other minor reasons were that the family moved to a new area and poor academic performance of the child.

Private to private school moves were far more common than the others – more than twice as many moves as all the types put together. The most common reasons for these moves were that the school was too far away, the family moved to a new area, and the school was too expensive. It is also notable that many quality issues also were raised here (general dissatisfaction, teachers not working well, poor academic performance), which suggests that parents are choosing between private schools at this level based on both cost and quality.

Secondary

The small number of moves from **public to public** was because the family moved to a new area, the teachers were not working well, and the child was expelled.

For moves from **public to private,** the reasons given that the public school was too overcrowded, the teachers were not working well, there was poor academic performance of the child, the school had poor discipline/safety, and also that he child was expelled.

Regarding **private to public** moves, the main reason was that the private school was too expensive, followed by the family moved to a new area, the school was too far away, teachers were not working well, and the child was expelled.

There were four times more moves from **private to private** than there were from public to public and public to private put together. The most common reasons were that the family moved to a new area, the school was too far away, and also the school was too expensive. Again, it is notable that several quality reasons also feature, again showing that parents are choosing between schools at this level based on both price and quality.

Table 37 Reasons for moving child – Pre-primary

Reason	Public to public	Public to private	Private to public	Private to Private
School too expensive	0%	0%	**86%**	**31%**
Moved to new area	**100%**	0%	**14%**	**30%**
General dissatisfaction	0%	**40%**	**29%**	21%
School too far away	**100%**	20%	**14%**	**32%**
School too overcrowded	0%	**40%**	0%	3%
Teachers not working well	**25%**	20%	0%	19%
Teachers on strike	0%	**40%**	0%	0%
School closed down	0%	0%	0%	3%
Poor academic performance	0%	**100%**	0%	22%
Poor discipline/safety	0%	**40%**	0%	3%
Child was expelled	**25%**	20%	0%	19%
Child was unhappy	0%	**40%**	0%	0%
Total children	**4**	**5**	**7**	**81**

Table 38 Reasons for moving child - Primary

Reason	Public to public	Public to private	Private to public	Private to Private
School too expensive	20%	0%	**74%**	**27%**
Moved to new area	**70%**	0%	**18%**	**31%**
General dissatisfaction	30%	**42%**	8%	19%
School too far away	**40%**	**33%**	8%	**33%**
School too overcrowded	10%	0%	2%	2%
Teachers not working well	**40%**	25%	8%	22%
Teachers on strike	0%	0%	0%	0%
School closed down	0%	0%	0%	3%
Poor academic performance	0%	**83%**	**16%**	25%
Poor discipline/safety	10%	0%	2%	2%
Child was expelled	**40%**	25%	8%	22%
Child was unhappy	0%	0%	0%	0%
Total children	**10**	**12**	**49**	**151**

Table 39 Reasons for moving child – Secondary (JSS/SSS)

Reason	Public to public	Public to private	Private to public	Private to Private
School too expensive	0%	0%	**75%**	**26%**
Moved to new area	**67%**	0%	**33%**	**33%**
General dissatisfaction	0%	14%	17%	15%
School too far away	0%	14%	**25%**	**31%**
School too overcrowded	0%	**30%**	0%	3%
Teachers not working well	**33%**	**29%**	**25%**	18%
Teachers on strike	0%	14%	0%	0%
School closed down	0%	0%	0%	3%
Poor academic performance	0%	**29%**	17%	18%
Poor discipline/safety	0%	**29%**	0%	3%
Child was expelled	**33%**	**29%**	**25%**	18%
Child was unhappy	0%	14%	0%	0%
Total children	**3**	**7**	**12**	**39**

10. Which is better – public or private?

We have explored householders' perspectives on the kinds of schools they have chosen for their children, and the overall reasons for school choice. But do householders have perspectives on differences and similarities between public and private schools in general? This chapter explores this issue, and also examines whether such perceptions are based on what type of school the families actually use for their children.

Perceptions and poverty

The question posed to householders asked, of 12 issues, "In general, in what ways are public and private schools different or the same, in your view?" They were then able to tick one of five boxes, indicating that they thought this issue applied to "public schools only", "private schools only", "both public and private schools", "neither public nor private schools", or that they didn't know. The 12 issues have been grouped into three for the purposes of Table 40: first, "Personal requirements" feature issues such as 'Affordable to my family', 'Near to my home', Responsive to my complaints' and 'Open hours I require'. Second, "Quality issues – positive" features 'facilities are good', 'teachers are well-trained', 'class size good', 'discipline good', 'children are well looked after' and 'teachers teach when they should.' Finally, "Quality issues – negative", concerns whether schools 'overcrowded' and if 'teachers go on strike'.

Table 40 shows the results, disaggregated according to family poverty levels. The highest percentage in each row is highlighted **in bold**. I have also added in two additional columns, on the far right of the table, "Applies to public", and "Applies to private", just in case combining stronger and weaker preferences would distort the results: Hence "Applies to public" includes respondents who ticked either "public schools only" or "both public and private schools". Similarly, "Applies to private" includes both "private schools only" and "both public and private schools". (As it turns out, these columns make no difference at all to the overall findings).

The findings are very clear:

For all the **personal requirements** except affordability, *families in each of the wealth categories favour private schools*. That is, the vast majority report that they believe private schools are open the hours they require, are responsive to their complaints, while majorities (in general) report that private schools are near to their homes. The only category where public schools might be favoured is in terms of affordability: not surprisingly this is true except for those in the richest group. Interestingly, even for this category, nearly half (42.6 percent) of those in the poorest category thought that private schools or both private and public schools were affordable.

For **quality issues** (framed in a **positive** way), for all but one small exception, *again families in each of the wealth categories favour private schools*. For most of these categories the perceived differences between private and public are very large – with percentages typically in the high 60s, 70s and 80s recording that these positive quality issues applied to private schools only. The only category where this wasn't unanimously the case concerned the training of teachers. Here, it was all but the lowest wealth category who believed that "teachers were well-trained" applied to private schools only. The perceived differences between public and private schools were less marked for this category than others.

Finally, regarding quality issues (framed in a **negative** way), *again families in each of the wealth categories disfavour public schools*. There was a universal sense that public schools were much worse than private with regard to being overcrowded and having teachers who go on strike. For each of the wealth categories, the percentages saying public was worse were in all cases above 90 percent while for teachers on going strike, overall 98 percent of interviewees believed this to be the case.

Table 40 Public-private perceptions, by poverty

Personal requirements									
Issue	Wealth	Don't know	Public schools only	Private schools only	Both public and private	Neither public nor private	Total N	Applies to public	Applies to private
Affordable to my family	Below poverty line	0.8%	**55.9%**	14.6%	28.0%	0.6%	492	**83.9%**	42.6%
	Up to twice poverty line	0.4%	**37.3%**	27.2%	35.1%	0.0%	268	**72.4%**	62.3%
	Above twice poverty line	0.6%	23.3%	32.5%	**42.9%**	0.6%	163	66.2%	**75.4%**
	All	0.7%	**44.7%**	21.5%	32.7%	0.4%	923	**77.4%**	54.2%
Near to my home	Below poverty line	0.0%	15.9%	**55.5%**	26.3%	2.2%	490	42.2%	**81.8%**
	Up to twice poverty line	0.0%	14.6%	**54.7%**	29.2%	1.5%	267	43.8%	**83.9%**
	Above twice poverty line	0.6%	12.2%	**47.0%**	37.2%	3.0%	164	49.4%	**84.2%**
	All	0.1%	14.9%	**53.7%**	29.1%	2.2%	921	44.0%	**82.8%**
Responsive to my complaints	Below poverty line	1.6%	11.0%	**71.7%**	15.7%	0.0%	491	26.7%	**87.4%**
	Up to twice poverty line	0.0%	7.2%	**75.0%**	17.4%	0.4%	264	24.6%	**92.4%**
	Above twice poverty line	0.0%	4.2%	**80.0%**	15.8%	0.0%	165	20.0%	**95.8%**
	All	0.9%	8.7%	**74.1%**	16.2%	0.1%	920	24.9%	**90.3%**
Open hours I require	Below poverty line	1.2%	12.6%	**54.8%**	31.4%	0.0%	484	44.0%	**86.2%**
	Up to twice poverty line	0.0%	6.0%	**57.7%**	36.2%	0.0%	265	42.2%	**93.9%**
	Above twice poverty line	0.6%	6.1%	**66.5%**	26.2%	0.6%	164	32.3%	**92.7%**
	All	0.8%	9.5%	**57.7%**	31.9%	0.1%	913	41.4%	**89.6%**

Quality - positive									
Issue	Wealth	Don't know	Public schools only	Private schools only	Both public and private	Neither public nor private	Total N	Applies to public	Applies to private
Facilities are good	Below poverty line	1.4%	13.7%	**67.2%**	17.0%	0.6%	488	30.7%	**84.2%**
	Up to twice poverty line	0.4%	11.9%	**70.3%**	17.5%	0.0%	269	29.4%	**87.8%**
	Above twice poverty line	0.0%	3.1%	**81.0%**	16.0%	0.0%	163	19.1%	**97.0%**
	All	0.9%	11.3%	**70.5%**	17.0%	0.3%	920	28.3%	**87.5%**
Teachers are well-trained	Below poverty line	1.4%	**36.9%**	31.0%	30.6%	0.0%	490	**67.5%**	61.6%
	Up to twice poverty line	0.0%	33.8%	**36.1%**	30.1%	0.0%	269	63.9%	**66.2%**
	Above twice poverty line	0.0%	19.5%	**46.3%**	34.1%	0.0%	164	53.6%	**80.4%**
	All	0.8%	32.9%	**35.2%**	31.1%	0.0%	923	64.0%	**66.3%**
Class size good	Below poverty line	1.8%	16.4%	**66.9%**	14.7%	0.2%	489	31.1%	**81.6%**
	Up to twice poverty line	0.0%	13.5%	**75.6%**	10.5%	0.4%	266	24.0%	**86.1%**
	Above twice poverty line	0.0%	4.9%	**87.8%**	7.3%	0.0%	164	12.2%	**95.1%**
	All	1.0%	13.5%	**73.1%**	12.2%	0.2%	919	25.7%	**85.3%**
Discipline good	Below poverty line	2.2%	15.9%	**59.6%**	22.2%	0.2%	492	38.1%	**81.8%**
	Up to twice poverty line	0.0%	14.6%	**64.4%**	21.0%	0.0%	267	35.6%	**85.4%**
	Above twice poverty line	0.0%	5.5%	**76.2%**	18.3%	0.0%	164	23.8%	**94.5%**
	All	1.2%	13.7%	**63.9%**	21.1%	0.1%	923	34.8%	**85.0%**
Children are well looked after	Below poverty line	1.0%	5.3%	**79.1%**	14.4%	0.2%	492	19.7%	**93.5%**
	Up to twice poverty line	0.0%	4.1%	**81.3%**	14.6%	0.0%	268	18.7%	**95.9%**
	Above twice poverty line	0.0%	0.6%	**86.7%**	12.7%	0.0%	165	13.3%	**99.4%**
	All	0.5%	4.1%	**81.1%**	14.2%	0.1%	925	18.3%	**95.3%**
Teachers teach when they should	Below poverty line	0.8%	11.8%	**66.5%**	20.7%	0.2%	492	32.5%	**87.2%**
	Up to twice poverty line	0.0%	9.3%	**72.9%**	17.8%	0.0%	269	27.1%	**90.7%**
	Above twice poverty line	0.0%	1.8%	**81.8%**	16.4%	0.0%	165	18.2%	**98.2%**
	All	0.4%	9.3%	**71.1%**	19.1%	0.1%	926	28.4%	**90.2%**

Quality - negative										
Issue	**Wealth**	**Don't know**	**Public schools only**	**Private schools only**	**Both public and private**	**Neither public nor private**	**Total N**		**Applies to public**	**Applies to private**
Overcrowded	Below poverty line	0.6%	**90.9%**	3.1%	5.1%	0.2%	486		**96.0%**	8.2%
	Up to twice poverty line	0.0%	**93.3%**	3.0%	3.4%	0.4%	268		**96.7%**	6.4%
	Above twice poverty line	0.0%	**96.9%**	2.5%	0.6%	0.0%	163		**97.5%**	3.1%
	All	0.3%	**92.7%**	2.9%	3.8%	0.2%	917		**96.5%**	6.7%
Teachers go on strike	Below poverty line	1.2%	**96.7%**	0.6%	1.0%	0.4%	492		**97.7%**	1.6%
	Up to twice poverty line	0.0%	**98.9%**	0.4%	0.7%	0.0%	269		**99.6%**	1.1%
	Above twice poverty line	0.0%	**98.8%**	1.2%	0.0%	0.0%	165		**98.8%**	1.2%
	All	0.6%	**97.7%**	0.6%	0.8%	0.2%	926		**98.5%**	1.4%

Perceptions of public-private differences by school type used

It might be wondered whether the findings discussed above have something to do with the fact that the majority (70 percent) of children are in private schools. Surely parents who are using public schools would not have such negative perceptions of their schools?

Our analysis here was conducted for the oldest child only, given as noted earlier, quite a few families choose more than one school type for the children under their care. In any case, as Table 41 shows, there are no appreciable differences between the types of school attended by the oldest child and by all children.

Table 41 Comparison between oldest child and all children, by school type

	% oldest child (N = 989)	% all children (N = 2,284)
Public	27.0	26.7
Private (low cost)	21.9	22.2
Private (medium cost)	23.0	24.3
Private (high cost)	24.8	24.2
Not in school	3.3	2.7
Total	100.0	100.0

Table 42 shows the data on perceptions of public and private schools disaggregated by type of school attended by the oldest child in the family.

It is startlingly clear that perceptions of public and private schools are more or less universal, irrespective of where the parent sends the (oldest) child:

For all the **personal requirements** except affordability, families *using public as well as private schools favour private schools*. That is, the majority report that they believe private schools are open the hours they require, are responsive to their complaints, while majorities (in general) report that private schools are near to their homes. The only category where public schools find favour is in terms of affordability: the largest group using public schools thinks that public

schools are more affordable. Interestingly, the largest grouping of those using low-cost private schools believes that *affordability applies to both public and private schools*. Perhaps the discussion in Chapter 6 highlighted an issue, of overlapping total costs in public and private schools, that is also perceived by families using low-cost private schools?

For **quality issues** (framed in a **positive** way), for all but one small exception, *again families using both public and private schools favour private schools*. For most of these categories the perceived differences between private and public are very large – with percentages typically in the high 60s, 70s and 80s recording that these positive quality issues applied to private schools only. There is only one quality area where families with children in public schools have different views of public and private schools – the issue of 'well-trained teachers'. 51 percent of families with children in the public schools replied that this applied to public schools only, and only a very low 13.5 percent of such parents thought it applied to private schools only. The important point is that, even though public school parents appeared to believe their teachers were better trained than those in private schools, on all the *other* quality indicators these parents agreed with those in the private schools that private schools were better. Or to put it another way, it seemed irrelevant for the overall quality of the school whether or not teachers were as well-trained as they could be, other things being equal.

Notably, in some categories, families using public schools had an even higher perception of the quality of private schools than families using private schools. For instance, 72.1 percent of respondents using public schools said that "facilities are good" applied to private schools only, compared to only 66.5 percent of families using low-cost private schools. Similarly, 76.5 percent of families using public schools noted that "class size is good" applied to private schools only, compared to 68.8 percent of families using low-cost private schools. Again, 81.5 percent of families using public schools thought that 'Children are well-looked after' applied only to private schools, compared to 78.2 percent in the low-cost private schools.

Finally, regarding quality issues (framed in a **negative** way), *again families using public and private schools disfavour public schools*. Universally, irrespective of which type of school was

being used by children, 90 percent or more of families believed that being overcrowded applied to public schools only, and nearly 100 percent of families believed that teacher strikes only happened in public schools.

Table 42 Public-private perceptions, by type of school used

Personal requirements									
Issue	School type	Don't know	Public schools only	Private schools only	Both public and private	Neither public nor private	Total N	Applies to public	Applies to private
Affordable	Public	1.1%	**62.8%**	12.0%	23.7%	0.4%	266	**86.5%**	35.7%
	Private (low cost)	0.5%	37.7%	21.9%	**39.1%**	0.9%	215	**76.8%**	61.0%
	Private (medium cost)	0.9%	**39.2%**	24.2%	35.2%	0.4%	227	**74.4%**	59.4%
	Private (high cost)	0.4%	32.4%	29.1%	**38.1%**	0.0%	244	**70.5%**	67.2%
	Not in school	0.0%	**45.5%**	33.3%	21.2%	0.0%	33	**66.7%**	54.5%
	All	0.7%	**43.8%**	21.9%	33.2%	0.4%	985	**77.0%**	55.1%
Near to my home	Public	0.0%	12.4%	**66.3%**	21.0%	0.4%	267	33.4%	**87.3%**
	Private (low cost)	0.0%	14.5%	**46.3%**	36.9%	2.3%	214	51.4%	**83.2%**
	Private (medium cost)	0.0%	17.3%	**51.3%**	29.6%	1.8%	226	46.9%	**80.9%**
	Private (high cost)	0.0%	16.0%	**49.0%**	30.5%	4.5%	243	46.5%	**79.5%**
	Not in school	3.1%	15.6%	**56.3%**	25.0%	0.0%	32	40.6%	**81.3%**
	All	0.1%	15.0%	**53.9%**	28.9%	2.1%	982	43.9%	**82.8%**
Responsive to my complaints	Public	1.9%	8.8%	**80.5%**	8.8%	0.0%	262	17.6%	**89.3%**
	Private (low cost)	0.5%	9.7%	**70.8%**	19.0%	0.0%	216	28.7%	**89.8%**
	Private (medium cost)	0.4%	8.0%	**69.3%**	22.2%	0.0%	225	30.2%	**91.5%**
	Private (high cost)	0.8%	8.2%	**76.3%**	14.3%	0.4%	245	22.5%	**90.6%**
	Not in school	0.0%	9.1%	**72.7%**	18.2%	0.0%	33	27.3%	**90.9%**
	All	0.9%	8.7%	**74.5%**	15.8%	0.1%	981	24.5%	**90.3%**
Open hours I require	Public	1.2%	10.5%	**65.5%**	22.9%	0.0%	258	33.4%	**88.4%**
	Private (low cost)	0.9%	9.8%	**51.6%**	37.2%	0.5%	215	47.0%	**88.8%**
	Private (medium cost)	0.4%	11.5%	**50.7%**	37.4%	0.0%	227	48.9%	**88.1%**
	Private (high cost)	0.4%	7.9%	**59.1%**	32.6%	0.0%	242	40.5%	**91.7%**
	Not in school	0.0%	6.1%	**69.7%**	24.2%	0.0%	33	30.3%	**93.9%**
	All	0.7%	9.7%	**57.5%**	31.9%	0.1%	975	41.6%	**89.4%**

Quality - positive									
Issue	School type	Don't know	Public schools only	Private schools only	Both public and private	Neither public nor private	Total N	Applies to public	Applies to private
Facilities are good	Public	1.5%	11.8%	**72.1%**	14.1%	0.4%	262	25.9%	**86.2%**
	Private (low cost)	0.0%	11.2%	**66.5%**	22.3%	0.0%	215	33.5%	**88.8%**
	Private (medium cost)	0.9%	11.0%	**67.4%**	19.8%	0.9%	227	30.8%	**87.2%**
	Private (high cost)	1.2%	11.2%	**75.6%**	12.0%	0.0%	242	23.2%	**87.6%**
	Not in school	0.0%	15.2%	**78.8%**	6.1%	0.0%	33	21.3%	**84.9%**
	All	0.9%	11.4%	**70.9%**	16.4%	0.3%	979	27.8%	**87.3%**
Teachers are well-trained	Public	0.7%	**50.9%**	13.5%	34.8%	0.0%	267	**85.7%**	48.3%
	Private (low cost)	0.0%	26.6%	**39.3%**	34.1%	0.0%	214	60.7%	**73.4%**
	Private (medium cost)	1.3%	26.1%	**43.8%**	28.8%	0.0%	226	54.9%	**72.6%**
	Private (high cost)	0.8%	27.8%	**44.1%**	27.3%	0.0%	245	55.1%	**71.4%**
	Not in school	0.0%	42.4%	**39.4%**	18.2%	0.0%	33	**60.6%**	57.6%
	All	0.7%	33.9%	**34.5%**	30.9%	0.0%	985	64.8%	**65.4%**
Class size good	Public	1.1%	9.1%	**76.5%**	13.3%	0.0%	264	22.4%	**89.8%**
	Private (low cost)	0.5%	15.3%	**68.8%**	15.3%	0.0%	215	30.6%	**84.1%**
	Private (medium cost)	1.3%	15.6%	**69.8%**	12.9%	0.4%	225	28.5%	**82.7%**
	Private (high cost)	0.8%	13.1%	**75.0%**	10.7%	0.4%	244	23.8%	**85.7%**
	Not in school	0.0%	21.2%	**69.7%**	9.1%	0.0%	33	30.3%	**78.8%**
	All	0.9%	13.4%	**72.7%**	12.8%	0.2%	981	26.2%	**85.5%**
Discipline good	Public	1.5%	20.3%	**55.6%**	22.6%	0.0%	266	42.9%	**78.2%**
	Private (low cost)	1.9%	14.0%	**62.8%**	20.9%	0.5%	215	34.9%	**83.7%**
	Private (medium cost)	0.9%	9.7%	**69.0%**	20.4%	0.0%	226	30.1%	**89.4%**
	Private (high cost)	0.4%	8.6%	**72.2%**	18.8%	0.0%	245	27.4%	**91.0%**
	Not in school	0.0%	15.6%	**59.4%**	25.0%	0.0%	32	40.6%	**84.4%**
	All	1.1%	13.4%	**64.5%**	20.8%	0.1%	984	34.2%	**85.3%**

Quality - positive									
Issue	School type	Don't know	Public schools only	Private schools only	Both public and private	Neither public nor private	Total N	Applies to public	Applies to private
Children are well looked after	Public	0.8%	5.3%	**81.5%**	12.1%	0.4%	265	17.4%	**93.6%**
	Private (low cost)	0.5%	4.2%	**78.2%**	17.1%	0.0%	216	21.3%	**95.3%**
	Private (medium cost)	0.4%	3.5%	**79.7%**	15.9%	0.4%	227	19.4%	**95.6%**
	Private (high cost)	0.4%	3.7%	**83.3%**	12.7%	0.0%	245	16.4%	**96.0%**
	Not in school	0.0%	0.0%	**93.9%**	6.1%	0.0%	33	6.1%	**100.0%**
	All	0.5%	4.1%	**81.2%**	14.0%	0.2%	986	18.1%	**95.2%**
Teachers teach when they should	Public	0.4%	17.7%	**65.0%**	16.9%	0.0%	266	34.6%	**81.9%**
	Private (low cost)	0.0%	5.1%	**72.7%**	22.2%	0.0%	216	27.3%	**94.9%**
	Private (medium cost)	0.9%	8.4%	**70.0%**	20.3%	0.4%	227	28.7%	**90.3%**
	Private (high cost)	0.4%	4.1%	**78.4%**	17.1%	0.0%	245	21.2%	**95.5%**
	Not in school	0.0%	9.1%	**75.8%**	15.2%	0.0%	33	24.3%	**91.0%**
	All	0.4%	9.1%	**71.5%**	18.8%	0.1%	987	27.9%	**90.3%**

Quality - Negative									
Issue	School type	Don't know	Public schools only	Private schools only	Both public and private	Neither public nor private	Total N	Applies to public	Applies to private
Overcrowded	Public	1.1%	**94.3%**	1.5%	3.0%	0.0%	263	**97.3%**	4.5%
	Private (low cost)	0.0%	**91.6%**	3.7%	4.7%	0.0%	214	**96.3%**	8.4%
	Private (medium cost)	0.4%	**92.1%**	3.1%	4.0%	0.4%	227	**96.1%**	7.1%
	Private (high cost)	0.0%	**91.8%**	4.5%	3.3%	0.4%	243	**95.1%**	7.8%
	Not in school	0.0%	**87.1%**	6.5%	6.5%	0.0%	31	**93.6%**	13.0%
	All	0.4%	**92.3%**	3.3%	3.8%	0.2%	978	**96.1%**	7.1%
Teachers go on strike	Public	0.7%	**98.5%**	0.4%	0.0%	0.4%	267	**98.5%**	0.4%
	Private (low cost)	0.0%	**96.3%**	0.9%	2.3%	0.5%	216	**98.6%**	3.2%
	Private (medium cost)	1.3%	**96.9%**	1.3%	0.4%	0.0%	227	**97.3%**	1.7%
	Private (high cost)	0.4%	**98.8%**	0.4%	0.4%	0.0%	245	**99.2%**	0.8%
	Not in school	0.0%	**97.0%**	3.0%	0.0%	0.0%	33	**97.0%**	3.0%
	All	0.6%	**97.7%**	0.8%	0.7%	0.2%	988	**98.4%**	1.5%

11. Towards a statistical model

In the first ten chapters, the discussion focused on understanding the data collected at the statistical descriptive level. This has revealed a wealth of information about the kinds of schools chosen by parents and some of the mechanisms and processes underlying school choice. In this chapter, we outline a statistical *model* that can be created based on the preceding discussion. In the final three chapters, this model is then set out and interpreted, linking it closely to the headings and discussion in the first ten chapters.

Choosing statistical methodology

The choice of statistical methodology for analysing a set of data depends on how the data was collected and the questions being asked of it. If we are interested in the effect of a particular drug on an aspect of patients' health, then we would use a randomised control trial (RCT) approach and the appropriate analysis. In educational and social research the questions tend to be less clear-cut and it is only rarely possible to use an RCT approach. More commonly a survey of a randomly-selected group of respondents is used to collect data for analysis, as is the case here.

For example, one of the questions being asked of this set of survey data was: "What factors influence the choice of school type for children in Lagos?" The range of possible factors is constrained by the items in the survey, which have been designed to elicit responses which are relevant to the question, according to existing theories and experience in other areas. The way in which we move from the survey data as collected to a tentative answer can be done through the kind of descriptive analysis already deployed. However, a further approach is through the use of a statistical model, which attempts to mimic the complex interplay of factors in the real world into a mathematical equation or equations.

For a model to be useful in answering the question posed, it must do two things: it must fit the data (i.e. explain the structure of the relationships observed in the data) and be ***parsimonious***.

This means that it must do this with as few fitted parameters as possible in order for the model to tell us something meaningful about the true underlying situation. For example, we could fit a dataset with 2,000 cases with a model with 2,000 parameters, but we would be no better off and have gained no new insights. On the other hand a model with just one parameter would not fit the data well and be equally useless. Striking the balance between data fitting and parsimony is one of the tasks of statistical modelling.

There are three main steps in developing a meaningful model:

1. Determining the outcome variables
2. Determining the background variables with which we will attempt to fit the outcomes
3. Creating models which balance data fitting and parsimony in order to give the 'best' (in some sense) explanation of the outcomes in terms of the background variables.

In this chapter, we describe how these steps can be carried out in relation to the Lagos school choice data, for the analysis of type of school chosen versus child and family background characteristics.

The first important step was to define the categories of schooling we are interested in. This was carried out in Chapter 3, where we defined four categories of school (public, low-cost private, medium cost private and high-cost private), as well as recognising from Chapter 2 a fifth category of "out of school". These five categories were identified by five indicator variables (with value = 0 if not in that group, 1 if in the group). These binary variables were the outcomes for the subsequent logistic regression modelling.

Background variables

To be used in regression models, background variables should either be binary (that is, with two values, 0 or 1, – e.g. for gender, boy/girl) or in a numerical form which can be assumed to form a scale in some sense. Age and family order are examples of this, as are parental education

(coded 0 to 4) and total family income. Whether father or mother attended private school were examples of binary variables.

In addition to the above, fairly simply derived from the data, we wanted to take account of the diverse possessions owned by each family, as a measure of their affluence. To this end a factor analysis of all the listed goods was carried out, which when rotated showed two major factors or groupings of possessions. We discuss this further below and in Chapter 12.

Modelling

The basic modelling tool used was logistic regression, which has as outcome a binary variable, with binary and numerical variables as background factors or predictors. The model, when fitted, *can estimate the probability* of the outcome being 1 based on the values of the background variables. Model parameters (coefficients) are adjusted to match these probabilities to the observed data.

There are two main snags to this form of model. One is that it needs to be run separately for each of the five outcome variables (school types). Ideally, these could be combined into a single model using multinomial regression. However, not only do such models tend to be unstable and hard to fit, their outcomes can be even harder to interpret than those of logistic regression.

Because logistic regression operates in a non-linear metric, the resulting fitted coefficients are not straightforward to interpret. The coefficient of background variable X is the change in the log-odds of the outcome for one unit change in X.

i.e. $ln\,(P(Y=1)/(1-P(Y=1))) \;=\; a + b.X + \ldots..$

Such a measure is not intuitively obvious to the non-statistician and needs to be carefully explained. In practice, positive values of the coefficient *b* imply that the likelihood of Y being 1 increases with increasing X, whereas negative values imply it becomes less likely. In presenting the results, we have shown the exponential of the coefficient (*exp(b)*). This is a multiplying

factor for the odds – values greater than 1 mean the odds (and probability) of Y being 1 increase with X, and values less than 1 mean the opposite.

However, before such a model can be fitted it is necessary to decide which of the many possible background variables should be included in the model. Too few, and the model will fit the data poorly. Too many, and it will not be sufficiently parsimonious to be useful. With *n* possible explanatory variables, there are 2^n possible models which could be fitted. So with just 10 variables, for instance, this amounts to 1024 possible models – too many to explore more than a fraction.

There are a number of possible algorithms to get round this problem – the one we have chosen is the 'step forward' approach. This works as follows:

1. Fit a 'null model' with no explanatory variables.
2. Consider all variables not in the model, and estimate their statistical significance if each in turn were included in the model.
3. Find the one with the lowest significance, below a certain cut-off (say 5%), and include it in the model.
4. If no variable meets this condition, end the process; otherwise, repeat from step 2.

This does not guarantee the 'best' model out of all 2^n possible models, but normally finds one which is 'good enough' in striking the balance between data fit and parsimony.

Deriving predictor variables

In order to investigate the influences possibly affecting school choice, it is necessary to define as many as possible which can be operationalised from the given data. Based on the explorations described in the first 10 chapters, it was decided to use the following variables:

1. The age of the child (***age_chld***)

2. The sex of the child (***sex***), with 0 for males and 1 for females
3. Whether or not the child is given as a "ward" of the family (**chld_wrd**), with 0 for no, 1 for yes)
4. The order of the child within their family of siblings (***famorder***), with 1 for the oldest child
5. Family type (***familytype***)– with 1 for two-parent families, 0 for all other types
6. Father's highest educational level, from 0 (none) to 4 (further or higher education) – ***fedmax***
7. Whether the father attended private school (***fprivate***)
8. Mother's highest educational level (***medmax***)
9. Whether the mother attended private school (***mprivate***)
10. Per capita income, divided by N 1000 (***percapinc***).

In addition to these variables, we are interested in the family's wealth, as indicated by their possessions. On the questionnaire are 20 questions, asking about the possession of various items, and the numbers possessed. These values (set to zero if the item was not possessed) were entered into a factor analysis procedure in order to derive one or more composite wealth variables. Examination of the eigenvalues showed that a good solution was to extract two factors.

When these factors were rotated, one factor loaded heavily on the possession of DVD players, generators, stoves, TVs, cable TVs, cellphones, refrigerators, freezers, PCs and cars. The second factor loaded heavily on the possession of land, cattle, pigs, goats etc. and property. The first factor, which relates to the possession of modern goods, was named ***wealth1*** and the second, relating to what might be termed "traditional" possessions, was named ***wealth2***.

The model

These 12 background variables were included in each of five different logistic regression models. For each model the binary outcome was whether or not a child was in one of the five different school types outlined above. For reasons discussed above, a step-forward process was

used, so that the final model in each case contained significant variables only. Table 43 shows the significant variables included in each model.

Table 43 School choice by school type: Significant Logistic Regression Coefficients

Background variable	Public	Low-cost private	Medium-cost private	High-cost private	Not in school
Age	0.366	-0.221	-0.074		-0.137
Sex (girls = 1)					
Family order	0.309			-0.221	0.275
Family type (two parents = 1)	-0.462	0.370	0.434	-0.350	0.633
Ward (yes = 1)					
Father's education	-0.119			0.206	-0.388
Father private education					
Mother's education		-0.234	0.215	0.258	-0.372
Mother private education			-0.521		1.488
Per capita income	-0.027			0.008	
Wealth 1 (modern)	-0.048	-0.034	-0.014	0.087	-0.039
Wealth 2 (traditional)		0.016		-0.148	
N	*2055*	*2055*	*2055*	*2055*	*2055*
-2 Log Likelihood	*1876.334*	*1966.343*	*2208.794*	*1759.806*	*435.292*
Cox & Snell R Square	*0.228*	*0.109*	*0.029*	*0.202*	*0.038*
Nagelkerke R Square	*0.331*	*0.165*	*0.043*	*0.306*	*0.170*

(Blank cells indicate non-significant variables.)

These logistic regression coefficients can be difficult to interpret in terms of what factors are having the largest apparent impact on school choice. Those which are positive make a particular choice more likely, while negative coefficients make that choice less likely. However, the ***strength*** of the impact depends not only on the magnitude of the coefficient but also on the scale of the background variable concerned.

To illustrate this, we can compute 'logistic impact indicators' based on the above coefficients and the standard deviation of each background variable. This is *exp(coefficient* x *standard deviation)*, and can be considered to be a multiplying factor for the odds of a particular outcome if the underlying variable increases by one standard deviation.

For example, suppose a given outcome has a probability of 50%, i.e. an odds ratio of 1.0. If the multiplying factor associated with an increase in a certain variable is 2.0, this means the odds ratio changes to 2.0, which is a probability of 67% for the given outcome. On the other hand, a factor of 0.5 would give an odds ratio of 0.5, equivalent to a probability of 33%. With this explanation in mind, Table 44 shows the 'logistic impact indicators' derived from the coefficients in Table 43.

Table 44 School choice by school type: Logistic Impact Indicators

Background variable	Public	Low-cost private	Medium-cost private	High-cost private	Not in school
Age	3.448	0.474	0.779		0.629
Sex (girls = 1)					
Family order	1.459			0.763	1.399
Family type (two parents = 1)	0.835	1.155	1.184	0.872	1.280
Ward (yes = 1)					
Father's education	0.855			1.312	0.599
Father private education					
Mother's education		0.746	1.309	1.381	0.628
Mother private education			0.882		1.429
Family income	0.168			1.696	
Wealth 1 (modern)	0.619	0.712	0.869	2.388	0.677
Wealth 2 (traditional)		1.173		0.229	

(Blank cells indicate non-significant variables)

Model interpretation

Reading these two tables together, we see the following: In terms of the likelihood of choosing a ***public school***, the variables with the strongest positive impact are the age of the child, followed by family order. Older children and those who are higher in the family ordering are *more likely* to be sent to public school. The strongest negative impact is father's education, followed by family type, modern wealth and family income. Two-parent families, those with better educated

fathers, more modern wealth and higher incomes are *less likely* to send children to public schools.

Considering the choice of ***low-cost private school***, variables with a positive impact are traditional wealth and family type. Families with more traditional wealth and from two parent families are *more likely* to choose low-cost private schools. The strongest negative impact is mother's education, followed by modern wealth and age of the child. Older children are less likely to go to low-cost private schools, as are those from families with more modern wealth and better educated mothers.

Medium-cost private schools are more likely to be chosen by families with better educated mothers and from two-parent families. Older children, those whose mothers had private education, and those from families with more modern wealth, are less likely to go to medium-cost private schools.

The strongest positive factor relating to the choice of ***high-cost private school*** is modern wealth – families with more of such possessions are more likely to choose this option. Other positive influences for this choice are family income, mother's education and father's education. This choice is less likely for children with more older siblings, for families with more traditional wealth, and curiously (reflecting some anomalies with the data) families from two-parent families. (Looking at Table 15 we see that 'single father' has a 'U' structure, with roughly equal numbers in both public and *high*-cost private, and lower numbers in low-cost and medium-cost private schools.).

Children who are ***out of school*** tend to be younger, from families with less modern wealth and lower mother's education, although there is the apparently anomalous finding that a positive influence on being out of school is for children whose mothers had private education and children from two-parent families (again suggesting some anomalies with the data, as for above).

It is also important variables that were not significant in any of the models. Most importantly, reinforcing the discussion in Chapter 2 above, gender was not a significant factor in school choice for any type of school.

Ward is also not a significant variable in the above regressions. However, if family type is removed, then ward does become significant in several places. Tables 45 and 46 show the same regressions as above, but without family type. As being a ward of the household was a variable of particular interest to examine, the next set of regressions exclude family type as a variable.

Table 45 School choice by school type: Significant Logistic Regression Coefficients

Background variable	Public	Low-cost private	Medium-cost private	High-cost private	Not in school
Age	0.367	-0.220	-0.073		-0.145
Sex (girls = 1)					
Family order	0.328			-0.209	0.237
Ward (yes = 1)	0.363		-0.372		
Father's education	-0.184	0.114		0.148	-0.284
Father private education					
Mother's education		-0.250	0.235	0.252	-0.379
Mother private education			-0.540		1.459
Per capita income	-0.028			0.008	
Wealth 1 (modern)	-0.046	-0.039	-0.013	0.090	-0.044
Wealth 2 (traditional)		0.014		-0.143	
N	*2055*	*2055*	*2055*	*2055*	*2055*
-2 Log Likelihood	*1881.397*	*1967.343*	*2214.519*	*1762.709*	*438.220*
Cox & Snell R Square	*0.227*	*0.108*	*0.026*	*0.201*	*0.036*
Nagelkerke R Square	*0.328*	*0.165*	*0.039*	*0.304*	*0.164*

(Blank cells indicate non-significant variables.)

Table 46 School choice by school type: Logistic Impact Indicators

Background variable	Public	Low-cost private	Medium-cost private	High-cost private	Not in school
Age	3.460	0.475	0.781		0.612
Sex (girls = 1)					
Family order	1.493			0.775	1.336
Ward (yes = 1)	1.099		0.907		
Father's education	0.785	1.162		1.216	0.688
Father private education					
Mother's education		0.731	1.342	1.371	0.622
Mother private education			0.878		1.419
Family income	0.157			1.696	
Wealth 1 (modern)	0.631	0.677	0.878	2.461	0.644
Wealth 2 (traditional)		1.150		0.241	

(Blank cells indicate non-significant variables)

School choices by level of schooling

We now explore whether any of these variables significant for school choice vary by level of schooling, i.e., whether the child is in pre-primary, primary or secondary school level. To do this, we repeat the logistic regression analysis of school choices by background factors, separately for each school level, (pre-primary, primary and secondary). Tables 47 to 49 show the significant logistic regression coefficients for pre-primary and secondary school levels respectively, while Tables 50 to 52 show the logistic impact indicators for the same three levels. The interpretation of these tables is as follows:

Pre-primary

For pre-primary children, in terms of the likelihood of choosing a **public school**, the variables with positive impact are the age of the child and the child's order in the family. The lower a child is in the family order (recall the eldest child is ranked 1, second oldest child 2, etc.), but the older the child, the more likely he or she is to go to public school. The strongest negative impact is father's education followed by Wealth 1 (modern); that is, families with better

educated fathers and who have more modern wealth goods, are less likely to send their children to public school at this level of schooling.

Regarding the likelihood of choosing a **low-cost private school,** the only variable with a positive impact is mother's education, while negative impact comes from Wealth 1 (modern). That is, families with more modern wealth are less likely to send their children at this level to low-cost private schools, while the better educated the mother, the more likely they are to send their children to low-cost private schools.

For **medium-cost private school**, girls are more likely to attend at this level of schooling.

Finally, for **high-cost private school**, the variables with the largest positive impact are modern wealth (families with more modern wealth are more likely to send their children to high-cost private schools), followed by mother's education (better educated mothers are more likely to send their children to high-cost private school at this level), and whether or not the mother herself attended private school (if she did, she is likely to send her children to high-cost private school). Conversely, those with more traditional wealth are less likely to go to high-cost private schools at this level.

Primary

At primary level, older children, and those higher in the family order are more likely to go to **public school**. Wards of the household are also more likely to go to public school. It is also the case that those with less educated fathers and with less modern wealth are also more likely to go to public school. Those lower in the family order are also more likely to go to public school.

Children with less educated mothers and from families with less modern wealth are also more likely to go to **low-cost private schools**; older children are less likely to go to low-cost private schools. Children with better educated mothers and fathers are more likely to go to **medium-cost private schools**, as are families with less modern wealth.

Finally, the variable with the largest impact for attending **high-cost private schools** is the amount of modern wealth, followed by mother's education and per capita income. Younger children, and those higher in the family order are also more likely to attend high-cost private schools.

Secondary

There was very little data for low-cost and medium-cost private schools at the level of schooling – as discussed earlier, there is very limited supply of low and even medium-cost private schools at secondary level. Only one variable was found to be significant – if a child is a ward of a household, then the likelihood increases of him or her going to a low-cost private school at this level.

Given that very few children attend low-cost and medium-cost private schools at the secondary level, the choice of school appears fundamentally to be between a high-cost private school and a public school. Older children are more likely to go to public schools, and younger children to high-cost private. Girls at this level are also more likely to go to public (this was only one of two instances where gender was a significant variable). Public schools at this level tend to be prestigious, highly selective and also charge high fees – so this may not indicate negative discrimination against girls here. Indeed it could show the opposite: that girls are the ones who are most able to get into these highly selective public schools, not boys. Those higher in the family order were more likely to go to high-cost private school, as were those from families with higher per capita income – the variable with the highest impact. Families with higher levels of modern wealth are more likely to go to high-cost private, while those with lower levels are more likely to go public schools at this level.

Table 47 Significant Logistic Regression Coefficients: Pre-Primary

Background variable	Public	Private (low cost)	Private (medium cost)	Private (high cost)
Age	0.174			
Sex (girls = 1)			0.356	
Family order	0.499			

Ward				
Father's education	-0.333			
Father private education				
Mother's education		0.083		0.420
Mother private education				0.838
Per capita income				
Wealth 1 (modern)	-0.083	-0.052		0.091
Wealth 2 (traditional)		0.068		-0.175

Table 48 Significant Logistic Regression Coefficients for School Choice: Primary

Background variable	Public	Private (low cost)	Private (medium cost)	Private (high cost)
Age	0.376	-0.129		-0.226
Sex (girls = 1)				
Family order	0.391			-0.289
Ward	0.487			
Father's education	-0.304		0.123	
Father private education				
Mother's education		-0.306	0.324	0.272
Mother private education				
Per capita income				0.004
Wealth 1 (modern)	-0.050	-0.026	-0.025	0.098
Wealth 2 (traditional)				-0.189

Table 49 Significant Logistic Regression Coefficients for School Choice – JSS & SSS

Background variable	Public	Private (low cost)	Private (medium cost)	Private (high cost)
Age	0.238			-0.215
Sex (girls = 1)	0.407			
Family order				-0.420
Ward		1.455		
Father's education				
Father private education				
Mother's education				

Mother private education				
Per capita income				0.059
Wealth 1 (modern)	-0.083			0.070
Wealth 2 (traditional)	0.072			-0.060

Table 50 Logistic Impact Indicators for School Choice – Pre-primary

Background variable	Public	Private (low cost)	Private (medium cost)	Private (high cost)
Age	1.801			
Sex (girls = 1)			1.195	
Family order	1.840			
Ward (yes = 1)				
Father's education	0.645			
Father private education				
Mother's education		1.109		1.691
Mother private education				1.223
Per capita income				
Wealth 1 (modern)	0.436	0.594		2.486

Table 51 Logistic Impact Indicators for School Choice – Primary

Background variable	Public	Private (low cost)	Private (medium cost)	Private (high cost)
Age	3.567	0.646		0.466
Sex (girls = 1)				
Family order	1.613			0.702
Ward (yes = 1)	1.136			
Father's education	0.670		1.176	
Father private education				
Mother's education		0.682	1.500	1.405
Mother private education				
Per capita income				1.302
Wealth 1 (modern)	0.606	0.771	0.779	2.666

Table 52 Logistic Impact Indicators for School Choice – JSS & SSS

Background variable	Public	Private (low cost)	Private (medium cost)	Private (high cost)
Age	2.237			0.483
Sex (girls = 1)	1.226			
Family order				0.599
Ward (yes = 1)		1.462		
Father's education				
Father private education				
Mother's education				
Mother private education				
Per capita income				49.193
Wealth 1 (modern)	0.436			2.015

12. Reasons for School Choice: Regression models

In Chapter 8, we investigated Reasons for School Choice, including exploring attitudinal data on families and school choice. We can extend this discussion by further statistical analysis, including regression analyses on these variables.

Further analysis of reasons for school choice

Recall the interviewee was asked to consider the *three main reasons* for choosing the current school *for each child*, out of a total of 10 options, (given in Table 27). A point to note is that all the variables are negatively correlated with one another: since there was a maximum of three responses per respondent, giving one response reduces the probability of giving any other response. This means that an attempt to carry out factor analysis in order to reduce the complexity of this part of the data would be doomed to failure, and alternative approaches are necessary. If we omit those options that few families gave, there seem to be just 4 key options or groups of options:

1. Perceived quality (quality of school, quality of teachers, reputation)
2. Fees and costs
3. Closeness to home
4. Discipline.

The last three are based on a single option, whereas the first can be approached by combining 3 options. If we do this, and look at the average number of options (out of a maximum of 3) chosen within the 'quality' group, we find the following:

Public school:	Average = 1.24*
Low-cost private school:	Average = 1.20*
Medium-cost private school:	Average = 1.40
High-cost private school:	Average = 1.53.

Conducting a statistical test (Duncan range test) showed that values marked with a * above were not significantly different from each other. This implies that families choosing public or low-cost private schools put less emphasis on perceived quality – at least as a major reason for school choice – whereas this rises for families using medium-cost private schools and is higher still for high-cost schools. Conversely, affordability and closeness to home appear much more important to families using low-cost private schools than other types of private schools, which confirms what we noted above.

Having looked at the relationships between these criteria and actual school choice, it is also interesting to see how the criteria rated most important by families are related to their background characteristics. Running regression models helps to investigate this. In the case of the composite 'quality' criterion, linear regression was used, whereas logistic regression was used with the other binary criteria. Table 53 shows the significant regression coefficients for these models, while Table 54 shows the (linear or logistic) impact indicators. (Note that for the linear model (for quality criteria) the impact indicator is *coefficient* x *standard deviation*, and may be positive or negative).

From these tables, we can make the following inferences:

- The perceived quality of a school is more important for families with higher mother's education and modern wealth, and for older children. It tends to be less important for families with more traditional wealth, and for children who are wards of the household.
- Fees and costs become less important as modern wealth increases.
- Closeness to home also becomes less important as modern wealth increases, and is less important for older children. It is also considered slightly important if a child is a ward of the household.
- Discipline becomes a more important criterion for older children, and as modern wealth increases. It appears to be less important for families where the father was in private education, and also for children who are wards of households.

Table 53 Significant Linear or Logistic Regression Coefficients for School Choice Criteria

	(Linear)	(Logistic)		
Background variable	**Quality**	**Fees & costs**	**Closeness to home**	**Discipline**
Age	0.01		-0.043	0.052
Sex (girls = 1)				
Family order				
Child a ward (yes = 1)	-0.122		0.335	-0.457
Father's education				
Father private education				-0.556
Mother's education	0.046			
Mother private education				
Per capita income				0.002
Wealth 1 (modern)	0.007	-0.021	-0.019	
Wealth 2 (traditional)	-0.003			

(Blank cells indicate non-significant variables)

Table 54 Significant Linear or Logistic Impact Indicators for School Choice Criteria

	(Linear)	(Logistic)		
Background variable	**Quality**	**Fees & costs**	**Close-ness to home**	**Discipline**
Age	0.034		0.866	1.190
Sex (girls = 1)				
Family order				
Child a ward (yes =1)	-0.032		1.091	0.888
Father's education				
Father private education				0.908
Mother's education	0.057			
Mother private education				
Family income				1.083
Wealth 1 (modern)	0.070	0.811	0.827	
Wealth 2 (traditional)	-0.030			

(Blank cells indicate non-significant variables)

Reasons for School Choice – levels of schooling

We can explore the reasons for school choice further disaggregating by levels of schooling, for each level of schooling, following the same method as above, looking at the average number of options (out of a maximum of 3) chosen within the 'quality' group. Table 55 shows the findings:

Table 55Average number of options chosen within "quality" group, by management type and level of schooling

School type	Pre-primary	Primary	Secondary
Public	1.10*	1.14*	1.24*
Low-cost private	1.19*~	1.21*	1.39*~
Medium cost private	1.34~#	1.40	1.52*~
High cost private	1.46#	1.54	1.57~
A Duncan range test shows that values marked *, ~ or # were not significantly different from each other			

Table 55 can be interpreted as follows: Interestingly, for both pre-primary and primary levels of schooling, families choosing both public and low-cost private schooling put less emphasis on issues of quality when answering why they chose schools than parents choosing medium and high-cost private schools. This is not to say that parents choosing public and low-cost private schools thought their choice of schools were of equal quality. Instead, this similar finding reflects rather that parents who choose low-cost private and public schools may have other priorities besides quality – as noted above, proximity to the home and affordability are two key reasons given that may replace reasons reflecting quality.

Again, we can conduct regression analyses looking at the background variables significantly related to school choice criteria, by school level. Tables 56 to 58 show the significant coefficients, by level of schooling (pre-primary, primary and secondary respectively), while Tables 59 to 61 give the significant linear or logistic impact indicators.

These tables can be interpreted as follows:

First, at **pre-primary** level, the perceived quality of the school is more important for families with higher mother's education and modern wealth. Fees and Costs become less important as both modern wealth and traditional wealth increase. Closeness to home becomes less important as modern wealth increases, and is less important if the father went to private education himself. Discipline appears to be more important the more traditional wealth a family has.

For **primary** school level, again the perceived quality of the school is more important for families with higher mother's education and modern wealth; it is less important for younger children. Fees and costs become less important as modern wealth increases. Closeness to home becomes (slightly) more important the older the child is, the higher the father's education and if the child is a ward of the household. It becomes less important the more modern wealth the family has. Discipline becomes more important the older the child is, and the more modern wealth the family is; it appears less important for those families choosing the school for their wards.

The "closeness to home" finding does not at first seem to concur with the earlier findings. However, this finding is for primary children only – it doesn't indicate that parents with very young children using pre-primary schools also feel the same way. It may indicate some statistical anomaly along these lines: perhaps parents with very young children in pre-primary also had slightly older children in primary, and these slightly older children were charged with taking the pre-primary children back and forth to school; closeness to home may be a reason given by parents for school choice for these slightly older children as well as the pre-primary children.

For **secondary school** level, the perceived quality of the school is more important for families who have more modern wealth, and if the mother went to private school. Fees and costs become less important the more modern wealth the family has, but more important the more traditional wealth the family has. If the father had private education, fees and costs are more important to the family. Closeness to the home is perceived as less important for boys, but more important if the child is a ward of the household. Finally, discipline is an important criterion if the child is a girl, but appears to be less important if the father and/or mother had private education themselves.

Table 56 Significant linear or logistic coefficients for school choice (Pre-primary)

Pre-primary	**Linear**	**Logistic**		
Background variable	**Quality**	**Fees & costs**	**Close-ness to home**	**Discipline**
Age				
Sex (girls = 1)				
Family order				
Child a ward (yes =1)				
Father's education				
Father private education			-1.304	
Mother's education	0.066			
Mother private education				
Per capita income				

Wealth 1 (modern)	0.007	-0.025	-0.019	
Wealth 2 (traditional)		-0.041		0.048

Table 57 Significant linear or logistic coefficients for school choice (Primary)

Primary	**Linear**	**Logistic**		
Background variable	**Quality**	**Fees & costs**	**Close-ness to home**	**Discipline**
Age	-0.023		0.06	0.056
Sex (girls = 1)				
Family order				
Child a ward (yes = 1)			0.448	-0.516
Father's education			1.134	
Father private education				
Mother's education	0.045			
Mother private education				
Per capita income				
Wealth 1 (modern)	0.005	-0.014	-0.027	0.013
Wealth 2 (traditional)				

Table 58 Significant linear or logistic coefficients for school choice (Secondary)

Secondary	Linear	Logistic		
Background variable	**Quality**	**Fees & costs**	**Close-ness to home**	**Discipline**
Age				
Sex (girls = 1)			-0.425	0.529
Family order				
Child a ward (yes =1)			0.747	
Father's education				
Father private education		1.127		-1.968
Mother's education				
Mother private education	0.327			-1.387
Per capita income				
Wealth 1 (modern)	0.008	-0.034		
Wealth 2 (traditional)		0.064		

Table 59 Significant Linear or Logistic Impact Indicators for School Choice Criteria for Pre-Primary

Pre-primary	Linear	Logistic		
Background variable	**Quality**	**Fees & costs**	**Close-ness to home**	**Discipline**
Age				
Sex (girls = 1)				
Family order				
Child a ward (yes =1)				
Father's education				
Father private education			0.797	
Mother's education	0.082			
Mother private education				
Per capita income				
Wealth 1 (modern)	0.070	0.779	0.827	
Wealth 2 (traditional)		0.663		1.618

Table 60 Significant Linear or Logistic Impact Indicators for School Choice Criteria for Primary

Primary	Linear	Logistic		
Background variable	**Quality**	**Fees & costs**	**Close-ness to home**	**Discipline**
Age	-0.077		1.223	1.206
Sex (girls = 1)				
Family order				
Child a ward (yes =1)			1.124	0.874
Father's education			4.437	
Father private education				
Mother's education	0.056			
Per capita income				
Family income				
Wealth 1 (modern)	0.050	0.869	0.763	1.139
Wealth 2 (traditional)				

Table 61 Significant Linear or Logistic Impact Indicators for School Choice Criteria for Secondary (JSS/SSS)

Secondary	Linear	Logistic		
Background variable	**Quality**	**Fees & costs**	**Close-ness to home**	**Discipline**
Age				
Sex (girls = 1)			0.809	1.303
Family order				
Child a ward (yes =1)			1.215	
Father's education				
Father private education		1.217		0.710
Mother's education				
Mother private education	0.077			0.721
Per capita income				
Wealth 1 (modern)	0.080	0.712		
Wealth 2 (traditional)		1.900		

13. Choosing a school – regression analysis

In Chapter 7, we explored who decides on where to send their child to school, and their sources of information. Again, we can conduct further statistical analyses on the data, to deepen our understanding of the way the variables interact.

Sources of information, and who decides?

When asked about where the family got its information, the respondent could only pick up to a maximum of three options. This leads to the problem that binary variables will be negatively correlated and so not suitable for factor analysis. The first 10 options were therefore combined into four new variables, as follows:

- ***Choice1:*** No information (option 1) – binary 0/1
- ***Choice2:*** Talked to others about the school (options 2 to 4) – range 0 to 3
- ***Choice3:*** Visited school, observed teachers and pupils (options 5 to 7) – range 0 to 3
- ***Choice4:*** Collected prospectus and other school information (options 8 to 10) – range 0 to 3.

Concerning 'Who decides?', in the questionnaire respondents could pick any number of answers, so it was therefore possible to carry out factor analysis on these variables. This analysis showed a single significant factor, with loadings as shown in Table 62. It is clear from the loadings that this main factor is principally a contrast between *grandparents* and *parents* as to who has the main role in the school choice decision. This factor was converted to a score (***Who1***) with mean 50 and standard deviation 10, such that higher values (over 50) tended to favour the grandparents and lower values the parents. These five measures were first analysed by the four types of school eventually chosen for the eldest child, as shown in Table 63 below. These interesting results can be summarised as follows:

- Few families get *no* information about the school, but there is a significantly higher proportion among those sending their child to public school than for any of the private school categories, which all have the same low proportion.

- Most families talked to others about school choice, and there were no significant differences between school types in this.
- As for the first point above, public schools are on their own with regard to visiting school, and/or observing teachers or pupils. Families who sent their child to public school were less likely to have visited the school or observed teachers or pupils than those going to private schools, with no difference between the private school categories.
- Public and low-cost private schools were similar in terms of families collecting a prospectus or other information, and less likely than medium-cost private schools, which in turn were less likely than high-cost private schools.
- In terms of whether grandparents had a relatively higher amount of influence compared to parents, this is less likely to be the case for high-cost and medium-cost private schools (no difference between these), compared with low-cost private or public schools (no difference between these).

Table 62 Factor loadings for who was involved in school decision

Who was involved	Loading
Staff of previous school	0.009
Mother	-0.397
Father	-0.513
The child	0.031
Grandmother	0.650
Grandfather	0.500
Other relative	0.117
Legal guardian	0.102

Table 63 Family choice factors by school type chosen

School type	Mean measure
Choice1 – No information	
High-cost private	0.07*
Medium-cost private	0.09*
Low-cost private	0.10*
Public	0.17
Choice2 - Talked to others about the school	
Low-cost private	0.75*
High-cost private	0.77*
Medium-cost private	0.78*
Public	0.79*
Choice3 - Visited school, observed teachers and pupils	
Public	1.09
High-cost private	1.22*
Medium-cost private	1.31*
Low-cost private	1.31*
Choice4 - Collected prospectus and other school information	
Public	0.25*
Low-cost private	0.31*
Medium-cost private	0.42
High-cost private	0.47
Who1 – Grandparents v. Parents	
High-cost private	48.92*
Medium-cost private	48.92*
Public	51.46~
Low-cost private	51.62~

(Means marked with * are indistinguishable on a Duncan test, as are those marked with ~)

Sources of information and who decides, regression analyses

Having looked at these derived variables in terms of the school type chosen, it is also worth seeing what relationships there might be with other background factors. To this end a series of

regression models was run, both logistic (for ***Choice1***) and linear (for the other variables). Results are shown in Tables 64 and 65, for the coefficients and impact indicators respectively.

These tables show the following results:

- Families getting no information for school choice tend to have lower mother's education and lower levels of modern wealth.
- There are no significant background variables relating to families' tendency to talk to others about school choice.
- The tendency to visit and observe the school is related positively to mother's education, and (very slightly) to the father having been in private education.
- The tendency to collect information about the school is positively related to modern wealth, father's education and mother's education.
- The tendency for grandparents to have more of a say in school choice is more likely for younger children and where the mother's education is lower, and (slightly) where the father and/or mother had private education. Grandparents are also more likely to have a say in the school choice of wards of the household.

Table 64 Significant Linear/Logistic Regression Coefficients, Family School Choice

	(Logistic)	(Linear)			
Background variable	**No info**	**Talked to others**	**Visited & observed**	**Collected info**	**Grand-parents v. parents**
Age					-0.121
Sex (girls = 1)					
Ward (yes =1)					0.429
Father's education				0.040	
Father private education			0.002		0.197
Mother's education	-0.287		0.042	0.035	-0.063
Mother private education					0.059
Family income					
Wealth 1 (modern)	-0.033			0.006	
Wealth 2 (traditional)					

(Blank cells indicate non-significant variables)

Table 65 Significant Linear/Logistic Impact Indicators, Family School Choice Measures

	(Logistic)	(Linear)			
Background variable	**No info**	**Talked to others**	**Visited & observed**	**Collected info**	**Grand-parents v. parents**
Age					-0.405
Sex (girls = 1)					
Ward (yes = 1)					0.112
Father's education				0.053	
Father private education			0.000		0.034
Mother's education	0.700		0.052	0.044	-0.078
Mother private education					0.014
Family income					
Wealth 1 (modern)	0.719			0.060	
Wealth 2 (traditional)					

(Blank cells indicate non-significant variables)

Sources of information and who decides, by level of schooling

Finally, we can explore at the family level how choices were made for the school of the oldest child, disaggregated by level of schooling, i.e., pre-primary, primary and secondary (JSS and SSS). We remind ourselves again that respondents were asked about how families get information on the school to which the oldest child currently in school attends. As the respondents were only allowed to tick three options, the binary variables were negatively correlated with each other, so unsuitable for factor analysis. As before, the first 10 options were combined into four variables:

- ***Choice1:*** No information (option 1) – binary 0/1
- ***Choice2:*** Talked to others about the school (options 2 to 4) – range 0 to 3
- ***Choice3:*** Visited school, observed teachers and pupils (options 5 to 7) – range 0 to 3
- ***Choice4:*** Collected prospectus and other school information (options 8 to 10) – range 0 to 3

As before, factor analysis on who was involved in making the decisions was amenable to factor analysis. This was carried out separately for each level of schooling, though for the youngest group (pre-primary) it failed due to zero variance in the data. Factor loading for the other age groups are shown in Table 61 below. The same pattern, of a contrast between grandparents and parents on school choice, is seen for each level of schooling (primary and secondary) as for the data overall.

The five family choice measures were first analysed by the four types of school (i.e., public, low-cost private, medium cost private and high-cost private) chosen for the eldest child, as shown in Tables 66 to 68 below, for each school level. These results can be interpreted for each school level as follows:

Pre-primary

- Few families get no information about the school, and there is no significant difference between families choosing any of the different types of school.
- Most families talk to others about school choice, and there is no significant difference between school types here.
- There were no significant difference between school types in family behaviour visiting schools, observing teachers and pupils.
- Few families collect prospectuses and other school information, but there is no significant difference between school types in family behaviour here.
- In terms of whether grandparents had a relatively higher amount of influence, this is less likely to be the case for parents choosing all three types of school, compared to parents choosing public schools.

Primary

- Few families get no information about the school, but there is a significant difference between families choosing low-cost private and public schools, and the two higher cost private schools.
- Most families talk to others about school choice, and there is no significant difference between school types here.
- Families choosing public and low-cost private are similar with regard to visiting schools, observing teachers and pupils; families choosing medium and high-cost private schools are also similar.
- Families choosing public or low-cost private schools showed similar levels of collecting prospectuses and other school information; both were less likely to do this than families choosing medium and high-cost private school (no difference between these groups).
- In terms of whether grandparents had a relatively higher amount of influence, there is no significant difference between families using any type of school.

Secondary (JSS/SSS)

- Few families get no information at all. Families using low-cost private schools are the least likely to get no information, and are significantly different from families choosing other types of school.
- For all other indicators, there are no significant differences between families choosing different types of school.

Table 66 Factor loadings for who was involved in school decision

Who was involved	Primary	Secondary
Staff of previous school	-0.039	0.151
Mother	-0.462	-0.464
Father	-0.512	-0.475
The child	-0.015	0.191
Grandmother	0.643	0.671
Grandfather	0.549	0.566
Other relative	0.172	0.318
Legal guardian	0.143	0.112

Table 67 Family choice factors by school type chosen – Pre-primary

School type	Mean measure
Choice1 – No information	
Low-cost private	0.05*
High-cost private	0.07*
Medium-cost private	0.15*
Public	0.18*
Choice2 - Talked to others about the school	
Public	0.64*
High-cost private	0.67*
Low-cost private	0.68*
Medium-cost private	0.83*
Choice3 - Visited school, observed teachers and pupils	
High-cost private	1.11*
Public	1.18*
Medium-cost private	1.28*
Low-cost private	1.43*
Choice4 - Collected prospectus and other school information	
Public	0.18*
Medium-cost private	0.19*
Low-cost private	0.32*
High-cost private	0.44*
Who1 – Grandparents v. Parents	
Medium-cost private	49.43*
High-cost private	49.16*
Low-cost private	54.38*
Public	61.09

(* - these means are not significantly different)

Table 68 Family choice factors by school type chosen – Primary

School type	Mean measure
Choice1 – No information	
High-cost private	0.07*
Medium-cost private	0.07*
Low-cost private	0.16*~
Public	0.17 ~
Choice2 - Talked to others about the school	
Medium-cost private	0.74*
Low-cost private	0.80*
High-cost private	0.81*
Public	0.86*
Choice3 - Visited school, observed teachers and pupils	
Public	1.05*
Low-cost private	1.20*
High-cost private	1.28~
Medium-cost private	1.30~
Choice4 - Collected prospectus and other school information	
Public	0.21*
Low-cost private	0.28*
High-cost private	0.51~
Medium-cost private	0.52~
Who1 – Grandparents v. Parents	
Medium-cost private	48.73*
High-cost private	49.23*
Low-cost private	50.11*
Public	51.48*

(* - these means are not significantly different; ~ similarly for these means)

Table 69 Family choice factors by school type chosen – Secondary (JSS/SSS)

School type	Mean measure
Choice1 – No information	
Low-cost private	0.00*
Medium-cost private	0.05*~
High-cost private	0.07*~
Public	0.17 ~
Choice2 - Talked to others about the school	
Low-cost private	0.75*
Public	0.76*
High-cost private	0.79*
Medium-cost private	0.84*
Choice3 - Visited school, observed teachers and pupils	
Public	1.12*
High-cost private	1.22*
Medium-cost private	1.43*
Low-cost private	1.50*
Choice4 - Collected prospectus and other school information	
Public	0.28*
Low-cost private	0.42*
Medium-cost private	0.41*
High-cost private	0.44*
Who1 – Grandparents v. Parents	
High-cost private	48.58*
Medium-cost private	48.86*
Low-cost private	49.08*
Public	50.88*

(* - these means are not significantly different; ~ similarly for these means)

Sources of information and who decides, by levels of schooling: regression analysis

Finally, having investigated these derived variables in terms of the school type chosen and the level of schooling, it is also worth investigating the relationships there are with other background variables used in the previous regressions, again disaggregated by level of schooling. A series of regression models was run, logistic (for ***Choice1***) and linear (for the other variables). Tables 70 to 72 show the regression coefficients (pre-primary, primary and secondary), while Tables 73 to 75 show the regression impact indicators (pre-primary, primary and secondary).

These tables can be interpreted as follows:

Pre-primary

- There were no significant variables concerning families who get no information about schools.
- The tendency to talk to others about school choice was related negatively to whether the father had been to private education himself.
- Whether families visited and observed schools and classes was related positively to whether the father had been to private school.
- Collecting information about the school was related positively to per-capita income.
- The tendency for grandparents to have more of a say in school choice is positively related to whether the child is a ward of the household.

Primary

- Families getting no information for school choice tend to have fathers who have not been to private education, and for families with less modern wealth.
- The tendency to talk to others about school choice is positively related to levels of mother's education, but negatively to per-capita income.
- The tendency to visit and observe the school is negatively related to per capita income.

- The tendency to collect information about the school is positively related to father's education, and to the level of modern wealth.
- The tendency for grandparents to have a say in school choice is more likely for younger children, and is more likely for girls. It is also more likely, the less educated the father.

Secondary

- Getting no information about the school is less likely the less modern wealth the family has.
- Talking to others about school choice is less likely for parents of girls, but more likely the more modern wealth the family has.
- Whether families visited and observed schools and classes was likely the less well educated the father was, but the better educated the mother was.
- Collecting information about the school was related positively to the level of mother's education.
- The tendency for grandparents to have more of a say in school choice is positively related to whether the child is a ward of the household; it is also more likely the less well-educated the father is.

Table 70 Significant Linear or Logistic Regression Coefficients for Family School Choice Measures – Pre-primary

	(Logistic)	(Linear)			
Background variable	**No info**	**Talked to others**	**Visited & observed**	**Collected info**	**Grand-parents v. parents**
Age					
Sex (girls = 1)					
Ward (yes =1)					0.66
Father's education					
Father private education		-0.212	0.253		
Mother's education					
Mother private education					
Per-capita income				0.181	
Wealth 1 (modern)					
Wealth 2 (traditional)					

Table 71 Significant Linear or Logistic Regression Coefficients for Family School Choice Measures – Primary

	(Logistic)	(Linear)			
Background variable	**No info**	**Talked to others**	**Visited & observed**	**Collected info**	**Grandparents v. parents**
Age					-0.114
Sex (girls = 1)					0.451
Ward (yes =1)					
Father's education				0.132	-0.168
Father private education	-0.215				
Mother's education		0.084			
Mother private education					
Per-capita income		-0.112			
Wealth 1 (modern)	-0.055		-0.088	0.214	
Wealth 2 (traditional)					

Table 72 Significant Linear or Logistic Regression Coefficients for Family School Choice Measures – Secondary (JSS/SSS)

	(Logistic)	(Linear)			
Background variable	**No info**	**Talked to others**	**Visited & observed**	**Collected info**	**Grandparents v. parents**
Age					
Sex (girls = 1)		-0.149			
Ward (yes =1)					0.384
Father's education			-0.103		-0.228
Father private education					
Mother's education			0.142	0.139	
Mother private education					
Per-capita income					
Wealth 1 (modern)	-0.059	0.114			
Wealth 2 (traditional)					

Table 73 Significant Linear or Logistic Regression Impact Indicators for Family School Choice Measures – Pre-primary

	(Logistic)	(Linear)			
Background variable	**No info**	**Talked to others**	**Visited & observed**	**Collected info**	**Grand-parents v. parents**
Age					
Sex (girls = 1)					
Ward (yes = 1)					0.172
Father's education					
Father private education		-0.037	0.044		
Mother's education					
Mother private education					
Per-capita income				7.229	
Wealth 1 (modern)					
Wealth 2 (traditional)					

Table 74 Significant Linear or Logistic Regression Impact Indicators for Family School Choice Measures – Primary

	(Logistic)	(Linear)			
Background variable	**No info**	**Talked to others**	**Visited & observed**	**Collected info**	**Grand-parents v. parents**
Age					-0.382
Sex (girls = 1)					0.226
Ward (yes = 1)					
Father's education				0.173	-0.221
Father private education	0.963				
Mother's education		0.104			
Mother private education					
Per-capita income		-4.473			
Wealth 1 (modern)	0.577		-0.880	2.140	
Wealth 2 (traditional)					

Table 75 Significant Linear or Logistic Regression Impact Indicators for Family School Choice Measures – Secondary (JSS/SSS)

	(Logistic)	(Linear)			
Background variable	**No info**	**Talked to others**	**Visited & observed**	**Collected info**	**Grand-parents v. parents**
Age					
Sex (girls = 1)		-0.075			
Ward (yes = 1)					0.100
Father's education			-0.135		-0.300
Father private education					
Mother's education			0.177	0.173	
Mother private education					
Per-capita income					
Wealth 1 (modern)	0.554	1.140			
Wealth 2 (traditional)					

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