



Exploring Early Education Programs in Peri-urban Settings in Africa

Lagos Report

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Executive summary

While primary school net enrolment rates are low in Nigeria overall, in the poor peri-urban community of Agege in Lagos State, preschool enrollment rates are surprisingly high. This high participation is reflecting both strong parental beliefs in the importance of preschool and the widespread availability of preschool facilities in schools. The preschool sector in Agege is dominated by private schools despite the decree by the Nigerian government that every public primary school should have an attached preschool and that these public preschool services should be provided free of charge. An estimated 82% of preschool students in the study area are attending private preschools.

In August and September 2013 Innovations for Poverty Action conducted a data collection exercise in the Agege slum area of Lagos. 126 household surveys and 18 headmaster interviews were conducted with the aim of discovering the scale, cost and quality and preschool education in this area. This paper gives details of this research and its findings, a summary of which are included here:

- More than 70% of 3 year olds and more than 90% of 4-6 year olds are attending preschool (or primary school) in Agege. There is no significant gender gap in preschool participation.
- This high participation is achieved despite the fact that an estimated 48% of 3-6 year olds live in households live below 1 dollar a day per capita (\$1.08 at 1993 PPP). There is, however, a statistically significant relationship between attendance and household income, and between attendance and the educational attainment of adults within the household.
- Preschools tend to be fairly formal, and an overwhelming majority of caregivers view preschools as educational establishments. 86% of respondents said that they their main motivation in sending their child to preschool was that the child should learn skills or be prepared for primary school. Only 1 respondent said that they sent their child to school primarily because there was no-one to look after them at home.
- The vast majority of primary schools have attached preschools; only 1 of the 65 primary schools that were attended by children in our household survey was not attached to a preschool. Many private schools seem, in fact, to have started with offering preschool grades and to have gradually introduced primary school grades as children got older.
- Children spend a significant period of time at preschools. All children attend school 5 days a week, and spend 37 hours at preschool per week on average. Just 4% of children attend preschool for less than 25 hours a week.
- Parents theoretically have a large set of options when choosing a preschool; the average caregiver knows of 3.6 preschools that their child could walk to (compared to 2.7 health centers for example). Amongst the major factors caregivers consider are proximity, teacher quality, and the school curriculum.

- The cost of sending a child to preschool is about \$27 per month on average. Nominal fees make up around half of this, with books and food also being major costs.
- Caregivers seem to view private preschools as superior to public preschools. On average parents estimate that attending a low cost private preschool instead of a public preschool would be associated with higher educational achievement and a 38% greater income at the age of 30. This further indicates that parents seem to value preschool as important both in terms of immediate school readiness and future career prospects.
- Richer households spend significantly more on preschool services than poorer households and we also find strong evidence that parents perceive more expensive private schools to be superior to low cost private schools. In addition, of parents whose children walk to school 49% are not sending their child to the school they consider to be the best quality within walking distance and the most common reason stated was that the best school was too expensive. This indicates that poverty may be a significant barrier to access to a quality preschool education.
- Only 3 of the 16 private preschools that were visited claim to be registered with the Government and few if any of the private preschools could meet a subset of the requirements for school registration.
- Private schools are generally quite small. The average school had just 93 pupils spread across 10 classes, of which 43 were in preschool classes. Private school class sizes are also generally small; the average number of pupils per teacher is 11, and no school has student/teacher ratio of more than 20:1. Over 90% of private school teachers have completed secondary school, and almost 75% have a degree, but none have ECD-specific training. 56% of private school teachers have 3 or fewer years of experience.
- Schools are generally well-provided with learning materials – most classrooms have a considerable number of exercise books, textbooks and storybooks.
- Children are taught literacy and numeracy, and are assessed through examinations, from the earliest years of preschool at age 2 to 3. Teaching and examinations are overwhelming in English, and that academic learning goals at young ages significantly outstrip those in place in Europe or America. These factors might be of concern to education experts, who emphasize the importance of learning in a child's mother tongue, and of developing a wide range of skills in preschool years, with equal emphasis being placed on social development, creativity, problem solving and emotional development.

Nigeria lags behind a number of other countries on the continent in terms of educational indicators, but it seems that preschool participation in parts of Lagos is quite high. Private schools serve a majority of pupils in Agege. These schools tend to be small and relatively well-resourced in terms of learning materials. This profusion of private schools is, however, fairly unregulated, and teachers remain poorly trained. Supporting the improvement of the quality of teaching and the expansion of quality preschools across the country are key challenges for the Nigerian education system.

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Terminology used in this report:

Preschool	Nursery and KG classes (but not crèche)
Kindergarten (KG)	First 2 preschool classes (aimed at age 2-4)
Nursery	Final 2 preschool classes (aimed at age 4-6)
Crèche	Aimed at age 0-2
ECD Center	Any center offering preschool grades or crèche

1. Sector Background: Early Education in Nigeria

1.1 The development of Early Education in Nigeria

Overview of the current preprimary and primary school situation in Nigeria

Young children currently have limited access to both health and education services in Nigeria. Gross Preprimary Enrollment Rates were just 14% in 2010, and although child mortality has declined significantly over the last few decades it remains high (and significantly higher than that might be expected given Nigeria's GDP per capita). Under-5 mortality was 143 per 1000 live births in 2010.¹ These overall figures do however mask considerable variation across both the income scale and the rural urban divide.

A 2013 World Bank project report also found serious weaknesses in the Primary School system.² Primary schools suffer from inequitable access, poor planning and management, and inadequate funding. World Bank education indicators, shown in Table 1, find that Nigeria compares unfavorably to other countries in the region and on the continent in general both in terms of net enrolment rates and gender access inequalities.

Table 1. 2009 Net Enrolment Rates and number of children out of school in a selection of Sub-Saharan African Countries³

Country	NER	Number of boys out of school (millions)	Number of girls out of school (millions)
Nigeria	57	5.40	4.88
Kenya	83	0.49	0.52
Ghana	77	0.38	0.41
South Africa	85	0.32	0.36

¹ UNICEF Country Statistics, 2010

² "Education Sector Overhaul: Increasing Enrollment, Completion, and Quality in Nigeria's Schools", available at <http://www.worldbank.org/en/results/2013/02/04/education-sector-overhaul>

³ See <http://data.worldbank.org/indicator>

The World Bank estimates that Nigeria contains around a third of the total number of out-of-school children in the world.

The current Early Education Framework

Pre-primary education caters to 1-5 year olds and can be broken down into 3 parts:

1. **Creche:** For children up to 2. This is predominantly a daycare facility in which young children sing, play games and sleep.
2. **Kindergarten (KG):** This caters for 2-4 year olds and is often subdivided into KG1 (2-3 year olds) and KG2 (3-4 year olds).
3. **Nursery:** This caters for 4-6 years olds and is subdivided into Nursery 1 and Nursery 2.

None of these pre-primary grades are compulsory.

The provision and regulation of pre-primary education falls under the remit of the Universal Basic Education Commission and State Universal Basic Education Board. The Ministry of Education sits above these bodies and coordinates the provision of ECD services.

There is a government curriculum for both KG and Nursery, and it is regularly reviewed by the National Educational Research and Development Council. Anecdotally, however, many schools use above grade level material from the government curriculum, and will therefore commonly use a higher grade curriculum for example, using the Primary 1 curriculum in Nursery 2 and using the Nursery 2 curriculum in Nursery 1. According to the 1998 National Policy on Education, the legislation further states that for pre-primary education the government shall "ensure that the medium of instruction is principally the mother-tongue or language of the community".⁴

⁴ International Labour Organisation (ILO) Action Programme on Education 2004-5: National Policy Brief, Nigeria (available at <http://www.ilo.org/wcmsp5/groups/public/--->

The government separates the education between 0-3 year olds and 3-6 year olds, but in practice parents and teachers do not seem to sharply delineate them and – especially in private schools – they are commonly bracketed together for administrative purposes. The same convention will be used here; Nursery and KG will most often be looked at together (and referred to as Preschool).

1.2 Early Education in the current policy agenda

Provision of Services

The 2004 Universal Basic Education (UBE) Act recognized early childhood care and education as an integral section of basic education. Although preschool is not compulsory the UBE act states that every existing public primary school should have a preschool offering Nursery grades attached, and that these should be provided free of charge. In many cases schools have not received sufficient resources to provide free preprimary series, and parents are often charged for a range of ‘additional services’. The Ministry of Education’s 4 year Strategic Plan indicates that access remains a serious problem; only 39% of primary schools had preschool facilities attached in 2010, and just 2.02 out of 20 million children were currently enrolled. Enrolment rates are considerably higher in urban than rural areas.

The Universal Basic Education Act did not mention the 0-3 age group, and as yet no official provisions have been made for this cohort.

Quality Assurance Mechanisms

The ‘National Minimum Standards for Early Child Care Centers in Nigeria’ was established in 2004. Minimum requirements for an Early Childhood Care and Education (ECCE) facility include:

- Appropriately trained teachers and caregivers – caregivers of 3-5 year olds are required to have completed a secondary school certificate and teaching proficiency certificate;
- Adequate teachers – there should be two staff members per 25 children below 3, and a staff member of per 35 children aged 3-5;
- Minimum space requirements (and an official certificate of occupancy);
- A safe and secure environment;
- Possession of specific infrastructure and learning materials;
- Adequate health and sanitation facilities, and weekly health checks;
- Provision of adequate, nutritious food;
- Theoretically sound teaching methods.

All ECCE facilities should also be registered and accredited. This is a multi-stage procedure, and varies slightly from state to state. In Lagos state schools must:

- (1) Apply to Lagos State Ministry of Education for ‘name search’ to ensure the name they have chosen is unique.
- (2) Apply for operational approval. After the Ministry of Education has reviewed the application they will conduct a site inspection and a personnel inspection. They will then either make recommendation on how the school should improve or grant the school a license to operate.
- (3) Approval must be renewed every year, which requires another inspection and payment of a fee. Schools that fall below the requisite standard can have their approval status stripped from them.

Registered schools should be visited by quality assurance teams every month.

If practice many private schools, particularly in urban areas, are not approved by the government.

[ed_dialogue/---sector/documents/publication/wcms_161963.pdf](#)

Comparatively few schools will come forward voluntarily to seek approval; the process generally starts when government inspectors notice a new school and go to visit it. The Lagos State Ministry of Education told us they are aware that the approval process is cumbersome, and that schools not currently able to meet all the requirements are therefore given time to improve before being shut down.

National Policy for Integrated Early Childhood Development (IECD)

The National Policy for Integrated Early Childhood Development (IECD) was launched in 2007. This is an explicitly multi-sectoral plan, which aims to ensure that Nigerian children get the best possible start in life. It includes policies for health, education, nutrition and child security and wellbeing.⁵ The aim is to ensure better communication and coordination horizontally, but also vertically between the different administrative levels. The policy lays out coordination mechanisms and implementation plans, and has been commended by international observers for its approach, but a number of aspects not yet been costed or operationalized in many states.

⁵ For more information on the IECD policy see http://www.eng.unesco-iicba.org/sites/default/files/Vol.9%20No%202.EN_.pdf

2. Description of the study area: Agege

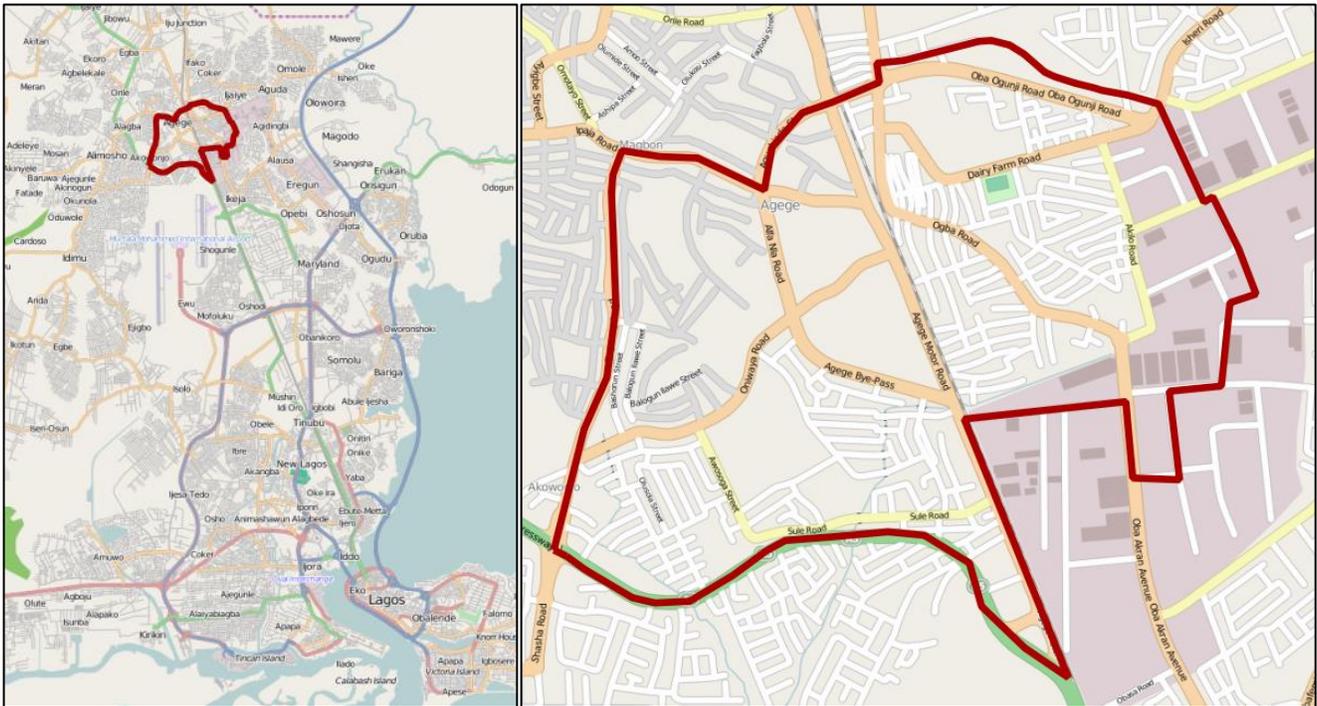


Figure 1 – Map of the study area: the LCDA of Agege
Base map: OpenStreetMap

In choosing the specific urban township of Lagos in which to conduct the study, we looked for a slum area that would be large enough to have at least a population of 150,000 (to be sure we would have a large number of preschools), relatively safe, and diverse enough to encompass a wide range of the realities of urban poverty in Lagos. Additionally, given the potential for rain during rainy season we sought a location without high risk of flooding during the survey period, which forced us to rule out the most informal slum areas of Lagos. We selected Agege, located next to the airport in the north west of mainland Lagos. More specifically, we used the borders of the LCDA of Agege, an area of about 5 km², with a population larger than 200,000.⁶

Agege is bordered by a large market area, large factories, a railroad which is in operation, and the airport. Even though Agege is undoubtedly considered by Nigerians as a “slum”, very few of the homes are informal structures. The density of households per structure, however, was even slightly higher than Mukuru, the slum area that was studied in Nairobi as part of the same study, and significantly higher than what was found in Soweto, South Africa.

⁶ As per the 2006 national census, the LGA of Agege, which is comprised of the LCDAs of Agege and Orile Agege, both being of approximately equal size, had a population of 459,939.

3. Study design

3.1. Sampling design

Data was collected in Lagos both through a household survey and through preschool headmaster interviews⁷. First, a representative sample of households in the study areas was randomly drawn. The household survey built a list of preschools attended by a representative set of children (i.e. those from the households that were surveyed). Twenty-five preschools were sampled from that list to be visited.

As discussed in Part 2, the findings below cannot be generalized as such to other - even seemingly similar - areas, and can only provide rough insights on what the situation is likely to be in some other similar poor urban townships of Lagos.

Sampling for the household survey

The sample was drawn to be representative of the study area described above. A 2-stage stratified cluster sampling was used.

Stage 1: stratified sampling of 20 Enumeration Areas (EAs)

The researchers divided the study area into 237 enumeration areas (EAs) of approximately equal size (most often between 40 and 50 structures) based on satellite pictures, with clearly recognizable limits. Any geographical point within Agege belonged to one and only one EA, irrespective of whether anyone lived there. In a first stage, 20 of these 237 EAs were selected using simple random sampling.

⁷The data collection team was not in Lagos during term time and – unlike in other sites visited as part of this study – classroom observation surveys were therefore not conducted.



Picture 1: Street in Agege (photo K.Bidwell)

Stage 2: sampling of structures/compounds within EAs

Sampling of EAs was not done with probability proportional to size, since there was no satisfactory measure of size available. Instead, it is the second stage of the sampling that was crafted so as to get close to a self-weighting sample: a fixed *ratio* of the number of structures/compounds that were found in the EA were sampled (instead of sampling a fixed number of structures/compounds).

In order to create a sampling frame each EA was sub-divided into smaller units. To do this, a recent satellite image of the area was used, and each area was visited to update it with new or demolished structures. Each structure of the 20 EAs was then assigned an ID.^{8,9} Based on ex-ante estimates of the number structures that would be necessary to obtain a total of around 120 surveys, a sample of 8% of the compounds/structures was drawn in each EA.¹⁰

⁸ The satellite images were from January 2013 and structures required very few updates. In addition almost all streets had clearly market street names, and many homes had visible house numbers which made navigation comparatively straightforward.

⁹ If buildings had small attachments such as boy's quarters or garages used for extra housing these were counted as being part of the main structure rather than as separate dwellings.

¹⁰ This was rounded to the closest integer, and rounding was taken into account when computing sampling weights.

In those compounds or structures, all households with at least one child aged between 3 and 12 were then visited for the survey. Across the 20 EAs 139 eligible households were found, of which 126 were interviewed. The remaining 12 households either refused to participate or a suitable respondent could not be located despite at least two and often three visits (always including one on a weekend day). Of the 126 households surveyed, 86 had at least one child aged between 3 and 6, or above 3 and attending preschool. These households were administered a full survey. The remaining 40 households only had children aged 7 to 12 (and not attending preschool), and were administered a short survey (see details in part 3.2. below).



Picture 2: Typical structure in Agege (photo K.Bidwell)

Sampling for the headmaster survey and classroom observations

From this sample of 126 households 48 preschools were identified as being currently attended by children in the household. Any type of center welcoming more than 5 children aged 3-6 was also included within the sampling frame, so as to capture more informal providers. For three children, the caregivers did not describe the place that their child was attending as a school, but simply center or house welcoming more than 5 children – we will call these centers “informal centers”. informal centers. All 3 of these children

were 3 years old and they attended 2 different informal centers.

Note that this study is looking at children aged 3-6, and our definition of preschool therefore does not include classes aimed at lower age ranges (generally called “crèche” by parents).

Out of the 43 private preschools attended, we sampled 21.¹¹ This sampling was done using a stratification with 3 different strata, i.e. by whether the preschool (i) had been mentioned by some parents as being the best in terms of quality within a walking distance and never mentioned as being the worst, (ii) had been mentioned by some parents as being the worst in terms of quality within a walking distance and never mentioned as being the best (iii) neither mentioned as one or the other, or mentioned by some parents as the best, and by some as the worst, therefore preventing us from a clear classification.

We also separately sampled 4 of the 5 public schools, and 1 of the 2 more informal centers. Despite repeated efforts over the course of 4 months we were unable to gain the appropriate permissions to visit more than one public school. A further 2 schools could not be located, and 2 more refused to take part in the survey. In total 18 surveys were completed, of which 16 were private schools, 1 was a public schools and 1 was a house/center. The quantitative aspects of the analysis of the school-level data, presented in part 4.3, use the 16 private preschools only.

3.2. Description of the data collection instruments

The surveys were conducted in August and September 2013. There were 2 different data

¹¹ Of the 21 private preschools that were sampled, 2 refused to participate and it was not possible to secure appointments with a further 2, so 17 surveys were completed.

collection instruments: a household survey and a preschool headmaster survey. The third instrument used in other locations of this study, the Classroom Observation, was not conducted in Lagos due to quality control and timing constraints. Schools were not in session during data collection and thus there was no way to pilot the instrument, conduct the survey or even train the team on the instrument on the field with IPA oversight.

The Household Survey

The household survey focuses on costs and priorities around children's education, as well as basic facts about the family, household finances and infrastructure. Specific questions were asked for each child aged 3-12 per household. The questions were largely close-ended with pre-tested and populated answer options. The definition of the household used was a group of people eating food purchased from the same budget, and recognizing the authority of one person - the head of household.

The questionnaire was administered to an individual who was the caregiver of at least one eligible child within the household. If the head of household fell into this category then they were interviewed wherever possible. The only exception to the rule that the respondent had to be a parent/caregiver was if households contained no 3-6 year old children, and no children attending preschool; in these cases the survey was fairly short, and contained predominantly simple and objective questions. In these cases enumerator were therefore allowed to interview any adult in the household who had a decent knowledge of the schooling of children under 12 within the household.

The full survey, which was administered to households containing at least one child aged between 3 and 6, or at least one child attending preschool (for cases where older kids were attending preschool), included objective questions on fees (both basic fees and additional costs) and the schooling schedule, as well as more complex

questions about the definition of quality for preschools, expected returns to investment in preschool, and priority ranking of level of education. The survey was administered using a PDA (a smart phone), and most often took place in the household. The full survey took around 40 minutes, while the truncated version (administered to families who only had children outside the 3-6 age bracket) took around 10 minutes. The main objective of the latter was to enable us to also build a representative sample of primary schools so as to look at the proportion of primary schools with a preschool attached.

The Headmaster (or "Principal") Survey

The headmaster survey, lasting about 60 minutes, contained detailed questions about schools finances, class size and school infrastructure, teacher qualifications, and curriculum and goals for students. It also sought to ascertain the challenges and characteristics distinctive to the school. Some questions related to the whole school, but most were focused on the preschool classes. In all cases the respondent was the Headmaster or Proprietor of the school, though they sometimes sought the assistance of senior preschool teachers where they did not know the answers to the preschool-specific questions. A majority of the survey was close-ended questions with pre-tested and piloted answers, but a selection of broader questions regarding learning goals and challenges were asked as open-ended questions to allow for a full range of possible answers. The goal of the survey was to capture details on the key quality metrics outlined in a pre-determined analysis plan.

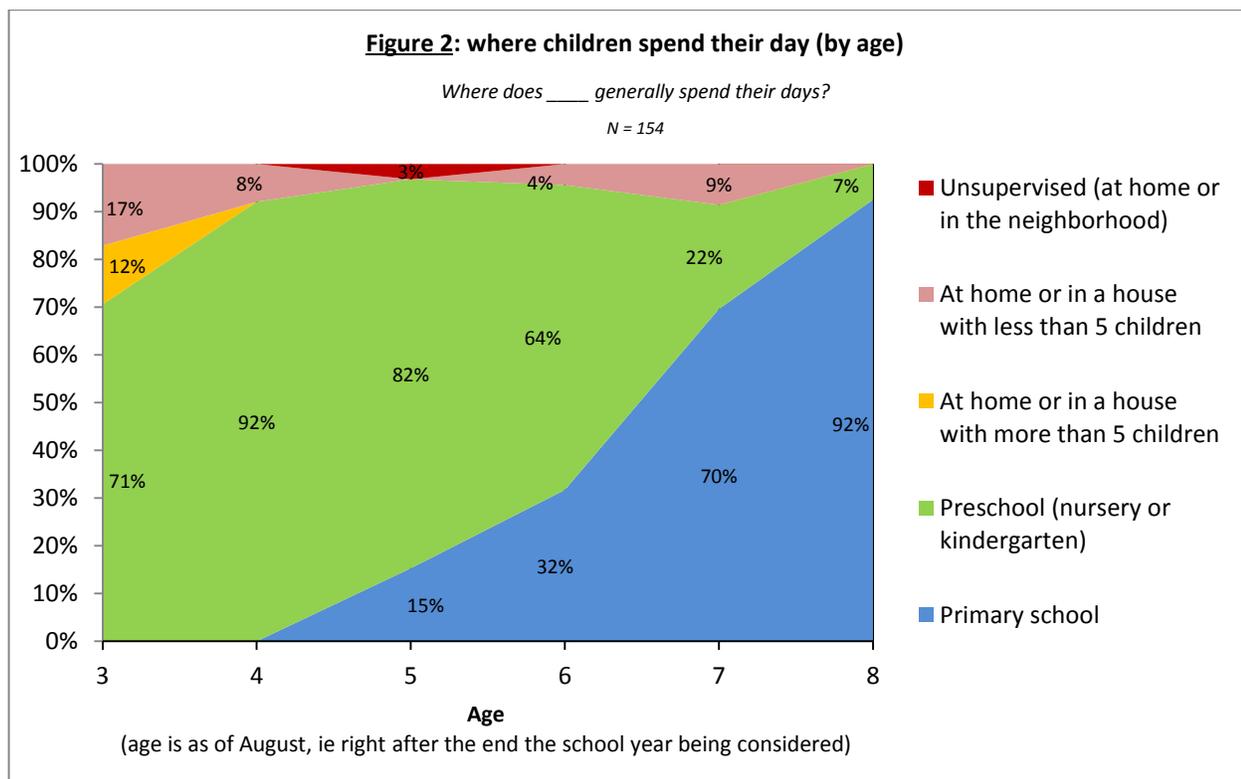
The survey took place during the long vacation, and enumerators therefore did not always visit the school; some interviews took place in the head teacher's home. The analysis here therefore relies heavily on information provided by the respondent rather than observational data.

4. Findings

It should be mentioned that with the limited sample size (126 households and 18 preschools), the confidence intervals on all our estimates are relatively large. The 95% confidence intervals are shown on all histograms. Despite this caveat on the level of precision of all our findings, we estimate that this sample size is sufficient for the purposes of this exploratory study.

4.1. Participation in ECD centers

4.1.1. General participation statistics



We first analyze where children generally spend the day. As shown in Figure 2, school and preschool participation rates are high across the age range; **more than 70% of 3 year olds and more than 90% of 4-6 year olds are attending preschool (or school) in Agege.** Of the 107 3-6 year old children within the sample only 14 were not

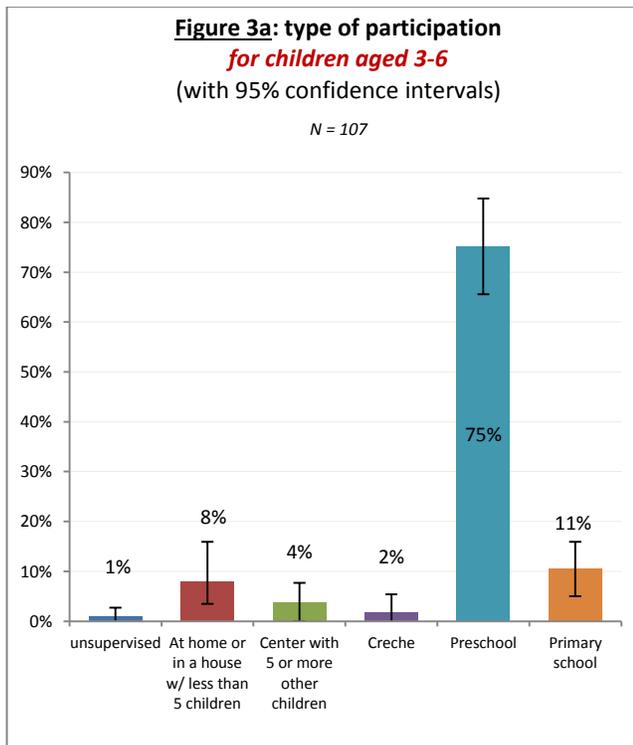
participating in preschool, and of these 3 were attending an informal center – ie a house or center that was not considered as a school by parents, but

where at least five other children are generally spending the day.¹²

The most common reason given by caregivers as to why children were not going to school was that they were not able to afford the fees, though a significant portion of parents also believed that the child was not ready for school. We shall return to this in more details in section 4.2.1 below.

As illustrated in Figures 3a and 3b, school participation rates (including preschool and primary school) for children aged 3-6 is estimated at 86%, and the preschool attendance rate for children aged 4 is about 92%.¹³

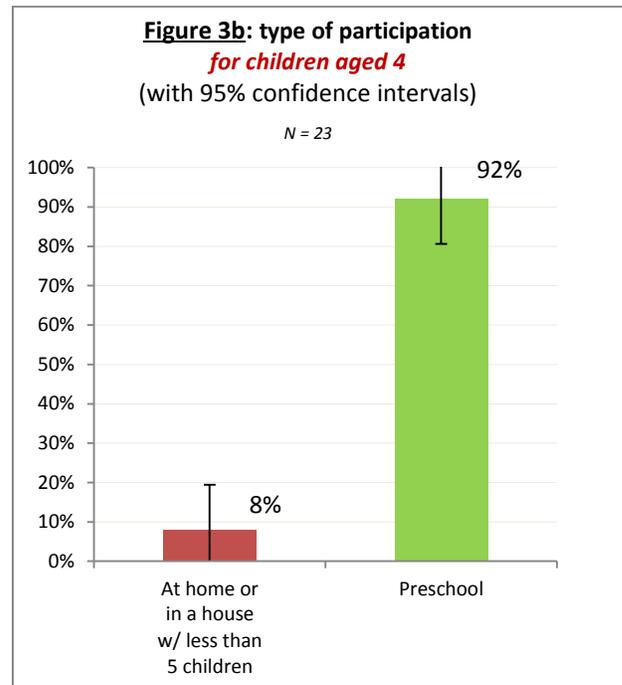
Participation in preschools versus more informal centers will be taken separately throughout this report unless explicitly stated otherwise.



*Brackets showing 95% confidence intervals

¹² For the purpose of the analysis below, those children attending informal centers are not counted as attending school.

¹³ The vertical bars on the figures provide 95% confidence intervals.



*Brackets showing 95% confidence intervals

- **Participation by gender**

In the sample, 3-6 year old girls exhibit a slightly lower school participation rate than boys (90% versus 97%), but the difference is not statistically significant.

- **Participation by age**

The majority of pupils seem to be enrolled in grades that are appropriate to their age. There is some evidence, however, of children being sent to primary school early; the survey was conducted right at the end of the school year, and we found 2 five year olds and a considerable number of six year olds (who would most likely have been four and five respectively at the beginning of the year) in primary 1. The official age at which children should start primary school is six.

There is also a significant minority - 15% - of pupils enrolled in preschool who are outside the target age range of 3 to 6. Interestingly, amongst the over-age pupils the most common reason given as

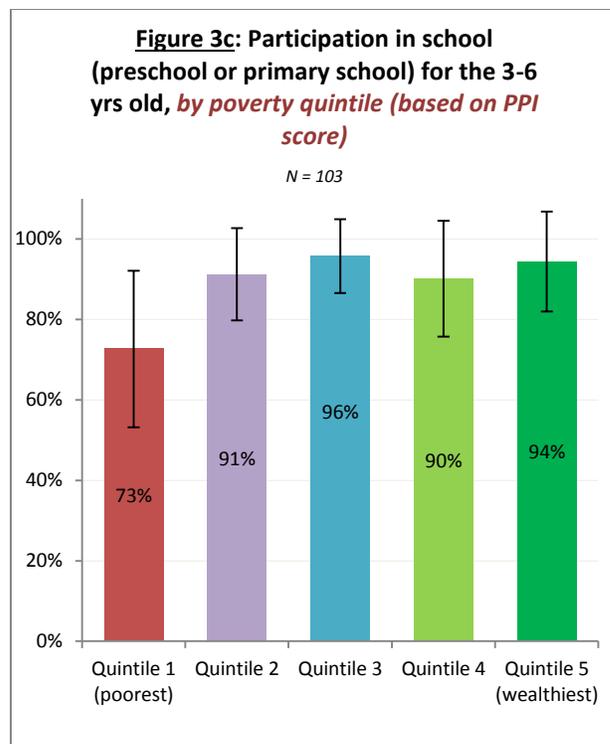
to why the child was attending preschool rather than primary is that children learn more in preschool.

4.1.2. Breakdown of participation by poverty status

In an attempt to get estimates of poverty and household financial status, typically difficult numbers to measure with short surveys, we used Poverty status based on the *Progress out of Poverty Index*® (PPI). This tool, developed by Mark Schreiner from Microfinance Risk Management L.L.C, is comprised of a country-specific set of 10 simple questions. The majority of these questions relate to asset ownership, but some relate to attributes such as family size and family education. It produces a score (the PPI index), that estimates the probability that the household is below a certain poverty line.¹⁴

Based on this data we estimate that 49% of the 3-6 year old children in the area live below the \$1poverty line.¹⁵

Looking at school participation for children aged 3 to 6 using PPI score quintiles (see Figure 3c) it is clear, despite the relatively small sample size, that although enrolment is consistently high across the income spectrum, one sees greater enrollment at higher income levels. This association between PPI score and school participation rate is statistically significant.



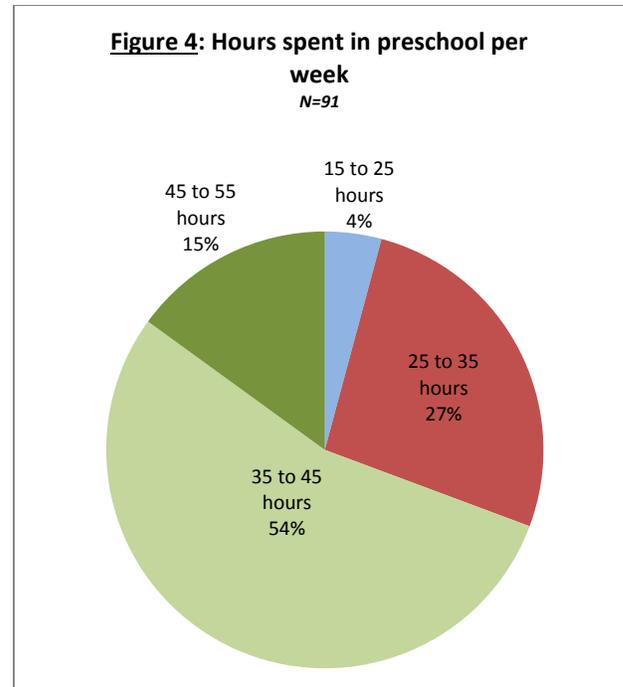
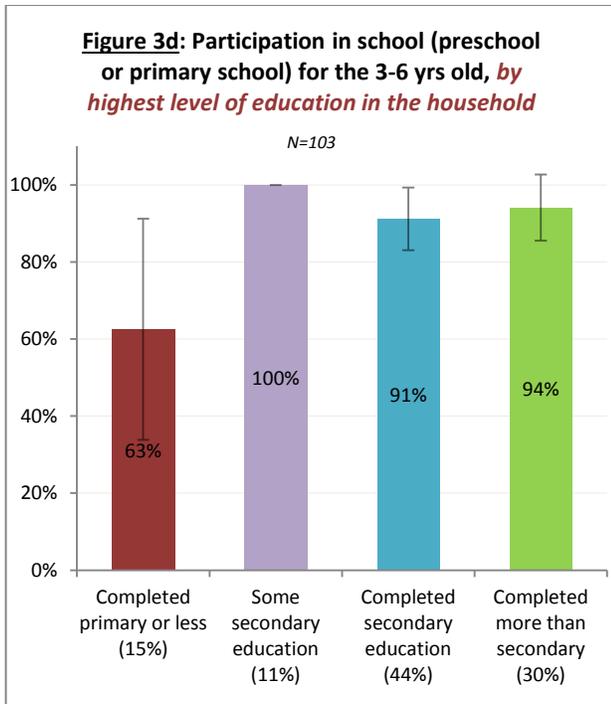
*Brackets showing 95% confidence intervals

4.1.3. Breakdown of participation by level of education of parents

In the survey area around 85% of the children aged 3 to 6 have at least one member in their household who completed some level of secondary school. The breakdown below (Figure 3d) shows that there is an association between higher education levels in the household and larger participation rates. This association is statistically significant.

¹⁴ "Progress out of Poverty Index: A Simple Poverty Scorecard for Nigeria", Chen, Schreiner and Woller, 2008

¹⁵ The PPI® lookup tables used to infer poverty status were developed before 2008. They are using the poverty line most commonly used at that time, and therefore also used here, which was \$1.08 per person per day at 1993 purchasing power parity. This was the World Bank's standard poverty line before it was updated in 2008 to \$1.25 per person per day at 2005 PPP.



4.1.4. Absenteeism and time spent in preschool

According to the household survey data, 100% of the children attending preschool attend school for 5 days in a “typical week” –i.e. without a sick day or a holiday. As shown in Figure 4, almost 70% of children attending a preschool or center are spending more than 35 hours there per week. Of this group 15% are spending between 45 to 55 hours per week in the preschool or center. Only 4% attend preschool for less than 25 hours.

We also asked the headmasters to assess the proportion of enrolled children that were absent on an average day. On average reported preschool absenteeism in schools attended by children within our sample was 8%, indicating that, according to headmasters, absenteeism levels are relatively low.

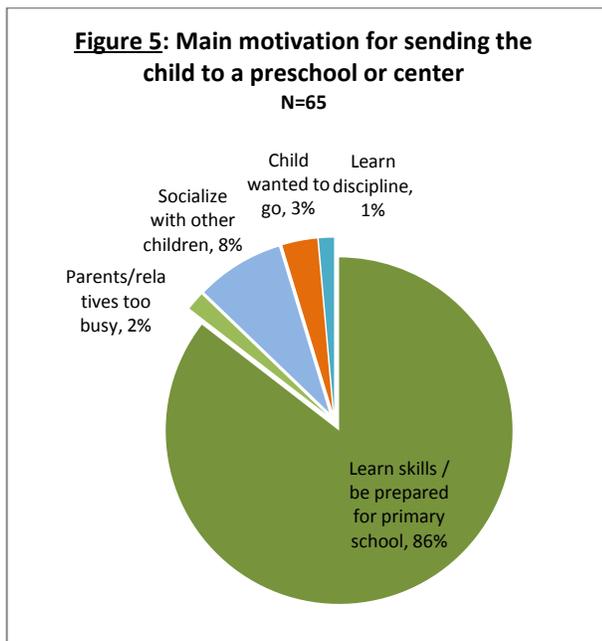
4.2. Description of the demand for ECD services

4.2.1. Parents value preschool education highly

Estimating the demand function for preschools cannot be done in a satisfactory way with an observational study (i.e. without imposing an exogenous variation on prices). However, one can (i) try to understand the nature of the demand for preschool services to get a sense of whether willingness to pay is likely to be high, and (ii) estimate the expected returns to preschool education for parents.

- **Nature of the demand for preschool services**

To approach this question, caregivers of preschool students were asked an open-ended question about the main reason why they were sending their child to preschool. Their responses were categorized by the enumerators, and the results are shown on Figure 5.



For a large majority of respondents the main motivation was for the child to learn skills or be prepared for primary school. Only 2 percent said that they send the child to school because they are too busy to look after their child. It thus seems the educational, academic and skills building component of the preschools are a top priority, and that parents are not viewing preschool predominantly as a daycare center.

In our sample of 107 preschool-aged children just 14 were going to neither preschool nor primary school. We asked the caregivers of these children to detail the most and second most important reasons that they did not send their child to school. The most common reason – given by 35% of caregivers - was that they could not afford the fees. This indicates that despite high attendance rates there may still be financial barriers to attendance for some children.

The second most common reason given for why a preschool-aged children was not in preschool was that the caregiver did not consider that the child was ready for preschool. Strikingly, no caregiver said that the most important reason they kept their child at home was that there was someone to look after them. This indicates that even amongst those who are not sending their children to preschool it is not viewed simply as a daycare center.

Overall, there seems to be a clear education-related motivation, which points toward a likely demand for academically-oriented preschool services (as opposed to simple daycare services).

- **3-6 year old children not attending preschool or primary school generally have little access to learning materials**

To build a proxy for the amount of educational opportunities at home, parents of 3-6 year old

children were asked about the educational materials that they have at home.

Of all children 3-6 years old 71% (whether attending to preschool or not) live in households with at least 1 textbook, and 88% have access to paper and pens. Amongst the subset of children that do not attend school or preschool only 33% live in households with at least 1 textbook and only 52% have access to paper and pens. The association between school attendance and greater access to learning materials is statistically significant in both cases. This indicates that children not attending school may also be more disadvantaged than their school-attending peers in terms of learning materials available at home. A considerable proportion may not have any access to reading and writing materials.

- **Expected returns to preschool education are high**

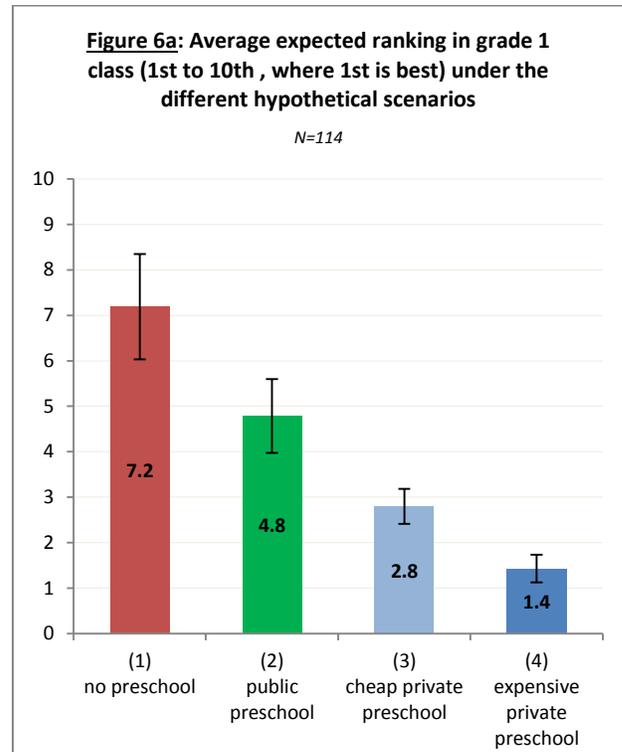
To get at the subjective concept of expected returns to different types of preschool, and thus the rank in terms of quality and expected skill-generation, we asked respondents to estimate both short- and long-term returns for each child who was either in the 3-6 age range or going to preschool.

(i) Short-term returns: preparation for primary school

We first asked caregivers to assess how their child would rank on a scale of 1 to 10 (where 1 is best and 10 is worst) in grade 1 under four distinct hypothetical scenarios:

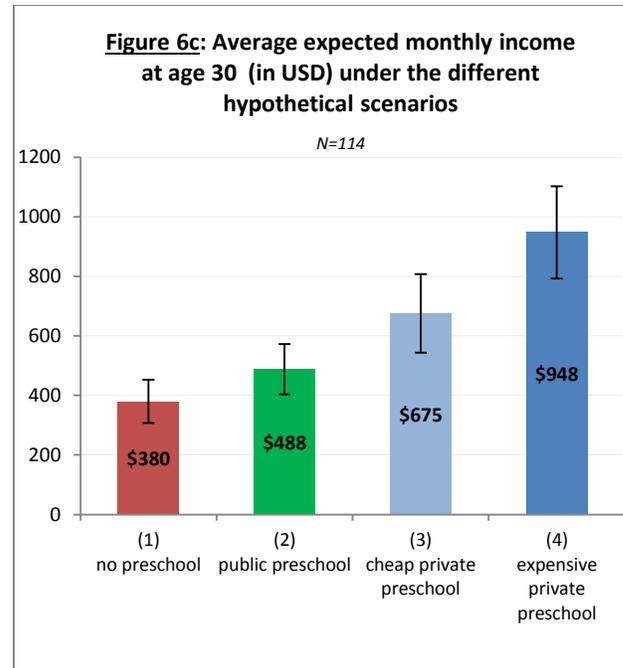
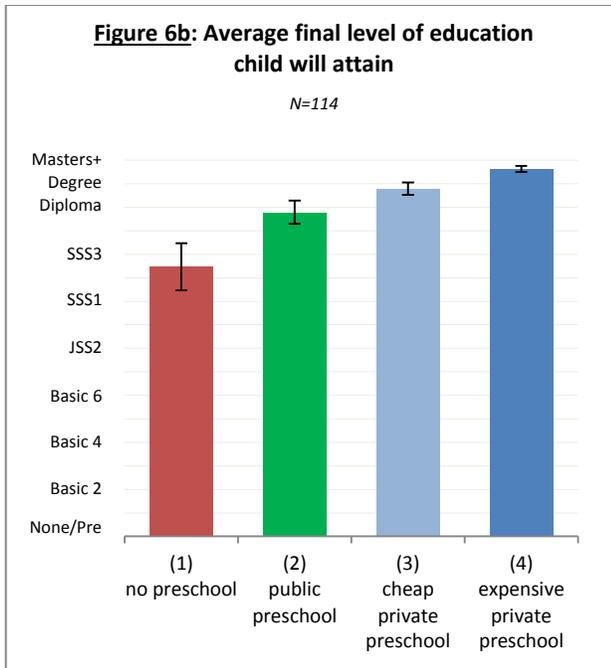
1. If they had not been to preschool (going straight to Basic 1 with no prior schooling);
2. If they had been to a public preschool
3. If they had been to a private preschool charging less than 4,000 Naira (~25 USD) per term;
4. If they had been to a private preschool charging more than 15,000 Naira (~95 USD) per term.

In each of the scenarios, the respondent was invited to rank the child between 1st and 10th (1st being the best student in the class, and 10th the weakest). Figure 6a shows the average ranking in each of the four scenarios. This clearly indicates that caregivers do understand preschool as an important preparation for success in primary school.



(ii) Medium-term returns: Highest education level attained

We then asked caregivers what they thought the highest level of education their child would go on to attain in each of the 4 scenarios. Respondents indicated that they thought their child would drop out of school earliest if they had no preschool education (scenario 1), and that they would remain in education the longest if they attended a comparatively expensive preschool (scenario 4). The results are shown in Figure 6b.



Respondents generally seem to be confident that their child will complete basic education and most of secondary school in all scenarios, but there is still a noticeable difference in expected attainment levels between scenario 1 and scenario 4. This seems to indicate that the learning benefits of preschool are seen as enduring beyond the early years of primary.

(iii) Long-term returns: Income at 30

Finally, we used the same four scenarios and asked parents how they thought their child would go on to earn per month when they are 30 years-old. Figure 6c shows the average expected monthly salary.¹⁶

We cannot, of course, be sure that some of these responses are not driven by what the respondent thought the interviewer was expecting to hear. We saw above, however, that enrollment rates are high and that parents do seem to view preschool as having strong returns which is in line with our findings here.

These results seem to indicate that parents do value preschool as important for a child in terms of immediate school readiness, eventual educational attainment and income in the future.

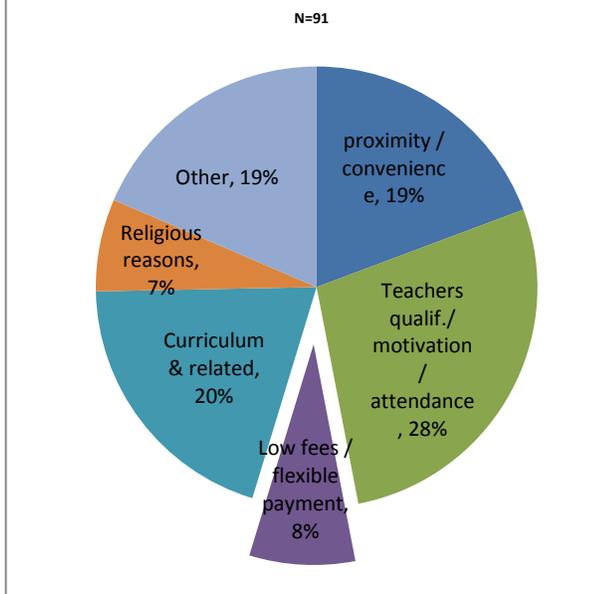
We find no significant difference in expected income for girls versus boys in any scenario.

4.2.2. Ability to pay: a constraint to quality

Having established that parents profess to place significant value on a preschool education, we now investigate further how parents choose where to send their child, and how much of a factor cost is in making this decision. We asked parents whose children attend preschool to give the main reason they chose that particular school, and the results are given in Figure 7.

¹⁶ We asked for income ranges only instead of actual figures. Therefore, to calculate those averages, we assigned to each range its middle value. For the last range –namely “200,000 Naira per month or more”, we assumed that the average would be 250,000 Naira.

Figure 7: Main reason for choosing a specific preschool or center

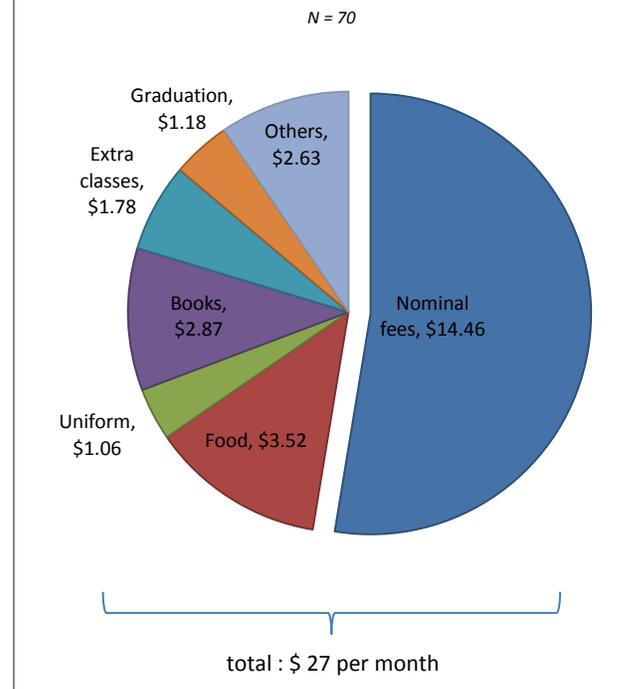


The reasons mentioned most often related to school quality, with 28% of parents saying that teacher characteristics were the most important factor, and a further 24% mentioning the school curriculum or facilities. Convenience and proximity was cited by 19%, but cost (or flexibility with the schedule of payment) was mentioned by just 8% of parents as the main determinant of their preschool choice. Only a further 8% mentioned cost as the second most important reason.

To estimate the magnitude of the financial burden that preschool imposes, we turn now to preschool-related expenditures. In Figure 8, we show the various preschool related expenditures. By these we mean the expenses that would not have been incurred if the child was not going to preschool. Some are fees charged directly by the school (such as nominal fees, exam fees and school feeding fees), others are expenses that are not paid to the school but would not have been incurred if the child was not going to preschool (such as uniform and books). The sum of all those different costs is the total monetary cost of sending the child to

preschool, which is about \$27 per child per month on average.¹⁷

Figure 8: Preschool related expenses per preschool child (in USD, per month)



Strikingly, nominal fees represent only about half of total fees. Parents also spend a considerable amount on school food, books and other extras.

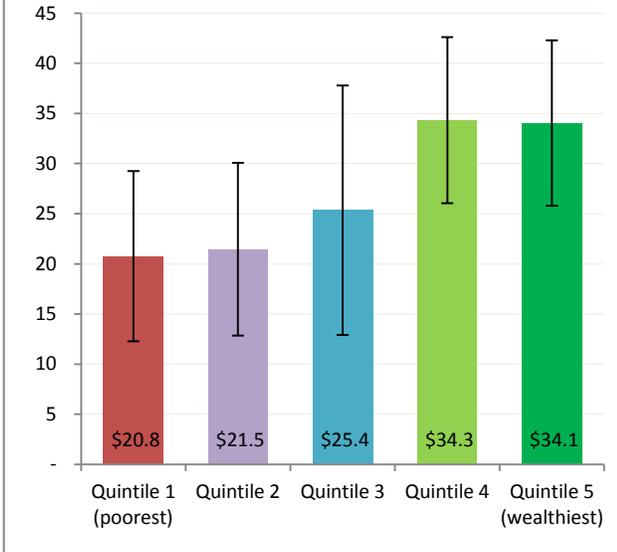
Figure 9 looks at the variation in preschool expenses across the different poverty quintiles (again, based on PPI®).

There is a statistically significant association between preschool related expenses and PPI score; preschool children from families with a higher PPI score also have more money spent on their education. This relationship does not hold if one looks at nominal fee expenses only; it seems that the difference comes in the amount caregivers are paying for 'extras', rather than the amount they are paying in basic fees.

¹⁷ Exchange rate used: 1 USD = 163.9 NGN

Figure 9: Total preschool related expenses per preschool child (in USD), by poverty quintile (based on PPI score)

N = 70



- **Discounts, Scholarships and Government Support**

Within our sample the incidence of scholarships or fee reductions is very low. Just 5 children receive a fee discount from the school they send their child to, and the average discount is around \$4 per month. These discounts seem to be given on an ad hoc basis and to be related to family circumstances rather than academic merit. No child was receiving a scholarship or bursary from an organization other than their school. Therefore, caregivers or extended families tend to bear the full cost of preschool expenses by themselves.

- **Further evidence on demand-side constraints to quality**

We asked caregivers of preschool students to name the preschool they thought was of best quality among those that they knew of within walking distance for their child. We found that, among preschool children who walk to preschool,

49% are not going to the school that their caregiver considers to be the best preschool within walking distance.

71% of those who send their child elsewhere stated that their main reason was that the best preschool in the area was too expensive. This indicates that cost may be a key barrier preventing parents from choosing the best quality preschool, which indicates that although the majority of parents do not consider that cost is *the* most important reason why they chose a particular school it is nonetheless a major consideration. It may be, for example, that cost issues narrow the range of choices a parent has, but that quality comparisons are then used to choose between those in an appropriate price bracket.

Overall, it seems that the cost of preschool imposes a significant burden on parents and that the total amount spend on preschool is affected by poverty level. However, other factors also play a major role in preschool choice.

4.3 Description of the supply of preschool ECD services

This section of the analysis draws primarily on the headmaster survey data. We will therefore first provide more information about this data to assist the reader in putting the quantitative claims we are making below in perspective.

The relatively small sample size produces large confidence intervals and it is therefore especially important here to remember that the information provided below can only provide an indication of actual figures across Agege; it should not be considered precise.

Second, two different types of claims will be made here, using two different sampling weights systems. Sometimes it will be stated that “x% of private preschool students attend a preschool that have/do...”, in which case larger weights are being put on preschools that were attended by multiple children in the sample. In other instances it will be stated that “x% of the private preschool attended by our sample of children have/do...”, in which case all 43 private schools that were in the private preschool sampling frame are given equal weight. We are using the weight system that seems most relevant in each instance.

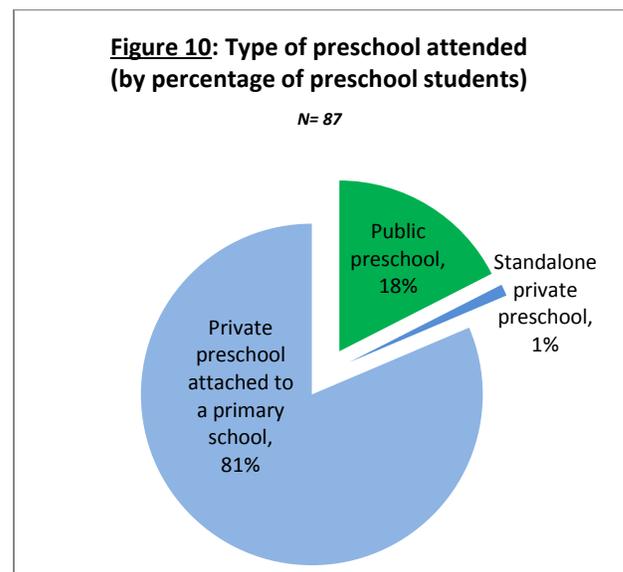
Last and overall, due to the nature of the data we will draw more heavily on qualitative than quantitative analysis. Quantitative supporting data will not always be available or appropriate.

Of the 18 headmaster surveys conducted 16 were with private preschools, 1 was with a public preschool and 1 was with an informal center (which we defined as a house or center that is not considered as a school but welcomes more than 5 children within the 3 to 6 age range). **The analysis below focuses on the 16 private schools only**, with occasional outside anecdotal evidence where appropriate.

- **Most children attend a private preschool attached to private primary school**

An estimated 82% of preschool students in Agege go to a private preschool (Figure 10). In absolute numbers, out of the 50 preschools attended by children from the sample, 43 are private.

Most private preschools are attached to private primary schools. As Figure 10 demonstrates only a small fraction are ‘standalone’ schools that only offer preschool grades.



The prevalence of private schools is also visible at the primary school level; we find that in the study area just 35% of primary school aged children are attending a public school. In absolute number of schools, we found 46 private primary schools that were attended by children from our sample, but only 19 public primary schools.

It appears that the large and vibrant private preschool sector plays a major role in educating both preschool and primary school students.

- **Most preschools are attached to a primary school, and all primary schools are attached to a preschool**

As Figure 10 demonstrates, the majority of preschools are attached to a primary school. Amongst the 44 private preschools in our sample we found just 1 standalone preschool without an attached primary schools; the remaining 43 are attached to primary schools. In total 81% of pupils attending preschool are attending a private preschool attached to a primary school.¹⁸

Most primary schools also have a preschool attached. All 46 private primary schools had a preschool, and only 1 of the 19 public primary schools did not have an attached preschool. Anecdotally a number of headmasters told us that they had actually started with a preschool and gradually added the primary school grades as their students got older.

- **Private schools are, on average, fairly small**

On average the 16 private schools attended by children within our sample had been in existence for 12 years. The oldest had been on operation for 28 years, and the youngest started in 2012.

All 16 schools offered all 4 preschool grades, and the average school offered 10 grades in total. Of the 16 schools 10 offered all primary grades, but only 1 school also offered Junior Secondary School.

An average schools attended by children within our sample had 93 pupils in the whole school, of which 43 were preschool pupils. The total school size ranged from 29 to 280, and preschool size ranged from 12 to 130. It is notable, therefore, both that schools tend to be fairly small and that the preschool tends to make up a significant proportion of the school.

Headteachers were asked for the years in which both the school and preschool started. Based on this information only 2 schools did not offer preschool classes in their first year of operation. Anecdotally many private school head teachers and proprietors stated that they had started their school with just preschool classes and added on primary school grades at the rate of one per year as their original preschool cohort progressed. Within schools the preschool classes seem to be more established; the average year group in preschool contained 11 pupils, compared to 8 in the average primary school year. A number of private schools said that they expected their primary and secondary schools would expand significantly over the coming years.

The informal center in the sample, which is not included in the above analysis, offered just crèche and KG1, and had 30 pupils in total in 1 classroom.

- **Few private schools can meet a subset of the registration requirements for preschools and centers**

Only 3 of the 16 private schools surveyed stated that they were registered with the government. This is perhaps not surprising given the rather intensive process. Amongst schools that were registered, however, there was a comparatively high degree of oversight. All 3 had been visited in the last 12 months and 2 had been visited more than 10 times.

In order to assess the standard of service provision, and estimate the likelihood that schools meet approved criteria, the ability of the 16 private schools to fulfil a subset of the requirements listed in section 1.2 above will be tested. The requirements used are:

- (1) Nursery classes should have at least 1 teacher per 35 students;
- (2) All teachers and caregivers should have, at minimum, completed secondary school;

¹⁸ The 1 house/center in our sample was not attached to a primary school; it only catered for crèche and KG1.

- (3) A safe and secure environment – existence of a fence around the school will be used as a proxy;
- (4) Adequate space – existence of a playground will be used as a proxy;
- (5) Provision of adequate and nutritious food – provision of any meal will be used as a proxy.

Table 2 shows the proportion of schools that were able to meet each of these requirements.

Table 2: Proportion of schools meeting subset of registration requirements

Requirement	% currently meeting
(1) Pupil teacher ratio of less than 35	95%
(2) All teachers completed secondary school	79%
(3) Safe environment (proxy: fence)	77%
(4) Adequate space (proxy: playground)	47%
(5) Adequate nutrition (proxy: meals provided)	20%

No school was able to meet all 5 requirements, with failure to provide food being the most common reason for schools falling short; 6 of the 16 (42%) were able to meet requirements (1) to (4).

Only 1 of the 3 schools currently registered was able to meet requirements (1) – (4), indicating that there may be some flexibility within the approval system.

It seems as though there may be further work to do to ensure that all schools meet basic quality criteria and standards. Some might also consider that it might be worth reviewing approval requirements given the current preschool environment.

- **Chains of preschools are not a major feature of the Agege landscape - most private preschools are standalone schools started by individuals living within the community**

The majority of private schools - 15 out of 16 - were started by and are owned by individuals, with the 16th being owned by a religious organization.

Of the 16 private preschools, only 2 belonged to chains, and of these 1 had 1 sister-school and 1 had 2 sister schools. It seems, therefore, that most preschools are standalone schools owned by a private proprietor.

These individuals tend to have strong connections with the communities in which they have started their schools. 76% of proprietors (of whom 41% are male) lived in the community at the time of the survey, and 79% of these have done so for more than 5 years. All proprietors not currently living in the area had done so in the past.

Over 80% of these individuals said that being a proprietor was their main profession, and the majority of the remainder were teachers. The professional background was also mostly in education; almost 60% had previously been teachers or head teachers, though 30% had been in a salaried job outside of the education sector. The overwhelming majority started the school with their own money or family money; only 1 proprietor had taken a loan from the bank.

4.3.2. Quantity considerations

To investigate the number of preschool options that caregivers have to choose from, we asked caregivers of children who were aged 3 to 6, or going to preschool, how many preschools they knew in the area that their children could walk to (including the one their child was attending, if relevant).

The average caregiver of a child aged 3-6 knows 3.4 preschools that their child could walk to, and 94% know 2 or more. In comparison, the average respondent knew 2.7 health centers within walking distance of their house.

It may be, of course, that for a number of parents a proportion of the schools they know will be out of

reach for cost reasons, but it does seem that most parents do have a number of preschool options from which to choose.

Given this, and the stated importance of proximity in the school choice decision, it is not surprising that 85% of preschool children walk to school. The average commute is just 10 minutes. Amongst those who do not walk most take a minibus, taxi or school bus. Amongst non-walkers the average length of commute is 15 minutes.

To further understand the extent of parental choice we asked headmasters whether their preschools accepted all students, to verify whether preschools were saturated. An estimated 68% of headmasters of preschools attended by children in our sample claim that they accept all children in the appropriate age group. Of those that do not, none mentioned that their reason for not doing so was that they were full; all claim to set children some form of aptitude test to determine their suitability. This probably indicates that preschools don't tend to be saturated.

Caregivers seem to have significant choice when choosing a preschool option for their child. Few schools consider themselves to be too full to turn away additional pupils, though some do set tests to determine a child's school readiness.

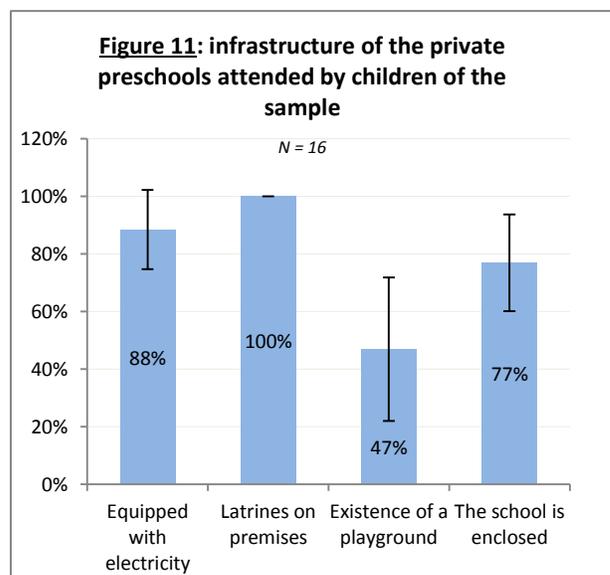
4.3.3. Quality considerations

- **The preprimary schools in our study area had decent infrastructure and materials, though there is considerable variation.**

This data is based strictly on Headmaster reports and was not verified by Classroom observation.

Most schools reported to have a considerable number of materials, though these tended to be more geared towards formal learning than to play:

- All schools in the sample claimed to have both textbooks and exercise books in all preschool classrooms. Over 90% of children in our sample attended a school that had more than one exercise book per child, and almost 70% of children attend schools with more than 1 textbook per child.
- 91% of children attend schools in which there are also story books. On average children attend schools with a little more than 1 story book per child.
- Only 49% of children attended schools that reported that they had toys for preschool use.



Wider school infrastructure was generally quite good. As seen in Figure 11 all schools had latrines on the premises and only 2 had no electricity, though a number of schools lacked a playground or a fence around the school.

- **A relatively academically oriented teaching style**

Lesson content and structure seem, in common with many other countries across the continent, to be academically focused:

Exams

15 of the 16 private preschools surveyed conduct exams with preschool children, and 12 out of 16 even conducted exams with the youngest age group (age 2-3).

Across all age groups exams are generally conducted once a term, and all schools conduct exams exclusively in English and share results with parents.

Homework

All schools set homework for preschool students, and all but 1 started to set homework in KG1 (the first preschool year, catering for children aged 2-3). The average school begins to set homework when children are 2.6 years old. This is considerably younger than in the US or Europe, and also younger than countries such as South Africa, where the average age to start homework is 5.

Learning Goals

According to the average headmaster in the area, children should know both the numbers from 1-9 and the full alphabet by age 3.5. These goals are more ambitious than those set in many countries in the developed world.

Languages

Although classrooms were not observed as the survey took place during the holidays, the fact that all preschool exams are described by headmaster as being done exclusively in English suggests that English is being used to teach early numeracy and literacy. This appears to be in contrast to official policy regarding the use of mother tongue, and research which suggests that young children learn the foundations of literacy best when taught in their mother tongue.

- **Student-teacher and student-classroom ratios are generally quite low**

On average a preschool child in the survey area is in classroom where teacher/pupil ratio is 1:11 and the average number of pupils per classroom is 14. There is, however, some variation from school to school; we found school-level student teacher ratios as low as 1:5 and as high as 1:20.

- **Profile of teachers**

Gender

An overwhelming majority of preschool teachers are female; 99% of teachers are female.¹⁹

Qualifications

According to their headmasters 61% of preschool teachers had an education-specific degree, and only 6% had no secondary school education.

No teacher, however, had an ECD-specific qualification or completed degree. Education training was general, or primary/secondary school specific, rather than focusing on the unique needs of preschoolers. Headmasters report that only 40% of teachers have been exposed to any ECD-specific training. Only 1 teacher had received any government in-service training.

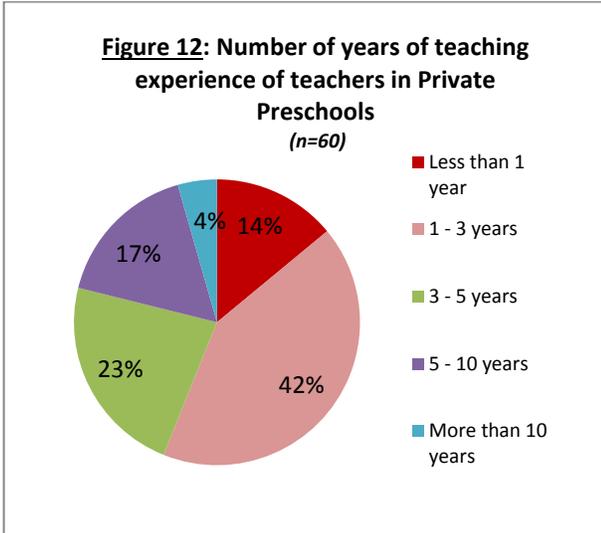
The number of teachers without ECD specific training indicates that a program aimed at providing additional training for ECD practitioners might be beneficial in this context.

Teaching Experience

Across the preschool sector teachers have on average 4.3 years of teaching experience. Figure

¹⁹ Of the 62 teachers in our sample just 1 was male.

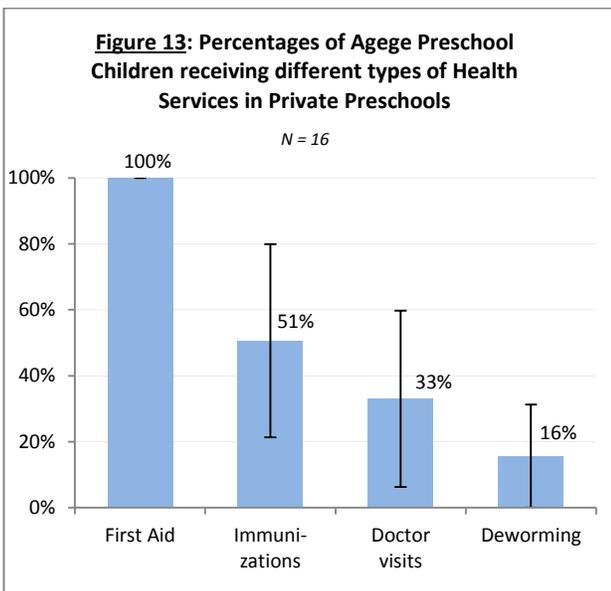
12 shows the breakdown across difference experience categories.



- **Health and nutrition**

Only 11% of children attendine private preschool attend a school at which lunch is provided for all children. In 13 of the 16 private preschools, no meals are offered at all.

Health service coverage is relatively widespread, as detailed in Figure 13. No school within the sample offers no health services.



Photographs from the study

