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MEET THE STANDARDS

**Expanding and improving preschool education in Nigeria
by welcoming local communities, faith groups and
entrepreneurs to the national framework**

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Jan van Ravens, consultant
van.ravens@yale.edu

Content

Acronyms

DHS	Demographic Health Survey
ECD	Early Childhood Development
ECCE	Early Childhood Care and Education
EFA	Education for All
FME	Federal Ministry of Education
GDP	Gross Domestic Product
GER	Gross Enrolment Rate
GMR	Global Monitoring Report
GNP	Gross National Product
MTS	Meet The Standards
MICS	Multiple Indicator Cluster Survey
NER	Net Enrolment Rate
NERDC	Nigerian Educational Research and Development Council
NGO	Non-governmental Organization
ODA	Official Development Assistance
UBEC	Universal Basic Education Committee
UNESCO	United Nations Education and Science Organization
UNICEF	United Nations Children's Fund

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Currency

This report uses mainly the national currency of Nigeria, the Naira. In some cases, US$ had to be used. At the time of writing, the exchange rate was: 1 US$ = 161 Naira; 1 € = 212 Naira

Executive Summary and Recommendations

Preschool education is critically important for the development and school-readiness of children, while at the same time it is a profitable investment for any society. This report explores how Nigeria can universalize preschool education for the children of ages 3 to 5.

There is a striking discrepancy between official enrolment data for the formal preschool and the attendance rates found in household surveys such as MICS and DHS. While the former suggest that the Net Enrolment Ratio hardly exceeds 10%, the latter show that in reality attendance is much higher. Among the 5 year olds it even exceeds 80%. A part of the difference can be explained by non-formal programs such as faith-based preschools, community-based centers, and commercial daycare (possibly including home-based provision). Another part of the difference could be accounted for by the many Nigerian children who enter primary education at age 5 or even age 4, instead of age 6. This problem of premature transition should be addressed, as education must always be age-appropriate.

From a strictly financial perspective, the enrolment of many children in non-formal programs and in primary education is good news. It means that these children are already paid for. Even if the quality of these programs would be insufficient, there is a teacher, there is a space, and there are some materials and inventory. The key recommendation of this report – and also its title – is to make these programs Meet The Standards (MTS). This means that they must be upgraded in order to qualify as good and age-appropriate preschool programs. This MTS strategy is a cost-effective way to significantly increase preschool enrolment by making use of pre-existing human, material and financial resources.

This is not to say that no money is needed at all. Additional investments are needed in these programs to make them meet the national standards. Teachers must be (re)trained in a preschool-specific manner. Programs must come to comply with the national curriculum. Groups must become smaller to meet the standards of 15, 20 and 25 children for respectively the 3, 4 and 5 year olds. Providers must invest in child-friendly learning environments. But the additional costs per child per year of upgrading these programs will be limited.

It goes without saying that the MTS-strategy also addresses the "really excluded" children: the ones that are not enrolled in any kind of program. The unit cost of enrolling these children is estimated at N 30,000 (per child per year).

Given the scarcity of data on education spending at State level, and given the contradiction between enrolment statistics and outcomes of household surveys, this report cannot produce reliable cost estimations for universalizing preschool in Nigeria. But by using bold assumptions wherever hard data are absent, this report does produce a very rough indication of the order of magnitude. Provided that the cost-effective MTS-strategy is applied, universalizing preschool would cost N 5.5 bln per year for the average Nigerian State. For Nigeria as a whole the costs would be in the order of N 190 bln. This amount would be strongly reduced if the expansion strategy would focus on the 4 and 5 year olds. Parental education would be a cost-effective intervention to enhance early learning during the period from birth to age 4.

Assuming that these cost estimations are broadly correct, the question becomes: can Nigeria finance amounts of this order of magnitude? The answer must be nuanced. On the one hand, N 190 bln is no less than 12% of the current education budget, while universalizing preschool education is like trying to hit a moving target: the fertility rate is still high, so every year there are more children in the relevant age bracket. But on the brighter side: Nigeria's economy grows rapidly. Even if the country maintains the education budget at 5% of GDP, that budget may still grow by 8% annually in the coming years. Admitting that the preschool sector must compete with primary education in obtaining its share from these additional resources, we can still maintain that 5 to 10 years of economic growth will free up enough money to cover the recurrent costs of universal preschool education. The costs of capital investment (classrooms, inventory) could be borne with the help of Development Partners, NGOs, and socially responsible entrepreneurs.

The returns on these investments will be high: not only in a financial sense but also in terms of human development. And last but not least: children have a right to equitable access.

Introduction

The plans for conducting a financial analysis for preschool education in Nigeria date from 2009. Low enrolment levels in most of the States and the slow pace of expansion in previous years were, and still are, causes of great concern. In addition, there were strong indications that a lack of financial resources – in government at various levels as well as in families – is a major bottleneck that hinders progress towards Goal One of the Education for All agenda.

However, it was also felt that more and better data were needed before embarking on financial analysis. Hence, UNESCO commissioned a survey from the Nigerian Education Research and Development Council (NERDC) in order to map:

- The number of children in the relevant age bracket for preschool education (ages 3-5[1])
- The number of children that are actually enrolled (by State and gender) as well as the number of preschool facilities
- The number of trained and untrained teachers
- Financial resources invested in preschool education.

The NERDC team consisted of Professor G. Obioma, Executive Secretary of NERDC; Dr. E.A. Apeji, Director of NERDC; Dr. C.O. Ubani, Consultant; Mrs. R. E. Onyemechi, Federal Ministry of Education; and Dr. O.S. Akinsola, Chief Res. Officer. The NERDC report has been a rich source of information for this financial analysis, and the data that have not been used for this report will undoubtedly serve many other purposes. The author of this report is very grateful to the NERDC team.

Another element that should have underpinned this financial analysis, would have been a mission in November 2011 by the author to Abuja. It was the intention to have several interviews with policy makers, academics and practitioners, and to visit a number of preschool facilities. Unfortunately, this mission had to be cancelled due to the security situation at that moment in Abuja. The author of this report wishes to express his hope that things will improve for the people of Nigeria as soon as possible, and that peace will return. He also apologizes for any mistakes and gaps in this report that occur as a result of the cancellation of the mission. Normally, dialogue and encounter are critical for writing a sound

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[1] By "ages 3-5" we mean in this report: the children of 3, 4 and 5 years old.

report that does justice to the realities in a country. Without such a mission, this report had to be written entirely "from a desk" which is not ideal.

Therefore, the author is very grateful for those who have assisted him in gathering data and information. He wishes to mention specifically Mr Hassan Keynan, Senior Education Officer and Ms Ngozi Awuzie, Programme Assistant for Education, both of the UNESCO Office in Abuja. Without their dedication and assistance, this report would not have been possible. Likewise, he thanks Professor Esther Oduolowu of the University of Ibadan for the critically important information that she provided, as well as for her valuable insights. Last but not least he expresses his gratitude for the assistance from Mr. Marito Garcia of the World Bank and Ms. Valerina Solarin of UNICEF Nigeria.

Notwithstanding this support, however, this report found that data on the financing of preschool education in Nigeria are scarce, and that sources of data on enrolment sometimes contradict one another. There is certainly a need for more transparency, and it may be the case that in some respects this report raises more questions than it answers. Yet, it is hoped that the report by the NERDC team as well as this report spark a process towards more clarity on where States are now standing, and on what they can realistically achieve in the coming years.

Estimating the costs of any program is essentially a multiplication of the number of beneficiaries – in our case children of ages 3 to 5 – and the unit costs: the cost per child per year. The first four chapters of this report are dedicated to one question: how many children are nowadays enrolled and in which programs; how many are excluded; and how are inclusion and exclusion influenced by the place where children live and the socio-economic situation of their families. The first chapter analyses the development of enrolment at national level, while the second focuses on a problem that will be central to this report: a serious discrepancy between official preschool enrolment statistics and attendance data from household surveys. The third chapter zooms in on the enrolment situation at State level, while the fourth investigates the impact of poverty and (un)employment on preschool enrolment. Estimation of the unit cost in preschool education is the task of chapter 5. The sixth and last chapter draws the two strands of work (beneficiaries and unit costs) together. It proposes a strategy called "Meet The Standards". By means of this strategy, States can work systematically on enhancing both the quality of and access to preschool education, against manageable costs and notwithstanding important gaps in data on enrolment and funding.

1. Enrolment Analysis at National Level

Before analyzing preschool enrolment patterns within Nigeria, we first look at the overall development of enrolment at national level. Consecutive editions of the Education for All (EFA) Global Monitoring Report (GMR) enable us to examine preschool enrolment in Nigeria throughout the past decade[2]. Figure 1 shows the development of the absolute number of enrolled children between 2004 and 2008 according to the GMR (blue bars). Starting from about 1.75 million children in 2004, it increased to about 2.1 million in 2008. Figure 1 also contains data from the Federal Ministry of Education (FME), for 2006-2010; these are represented by the red bars. As the two time series of the GMR and the FME partly overlap, we can observe that the data from the latter source are generally higher than those from the former source[3]. In 2010, preschool enrolment is reported by the FME to have reached a level of about 2.75 million children. In general, figure 1 reveals a modest upward trend, interrupted by a decrease between election year 2007 and the year 2008 (as reported by the FME but not by the GMR).

Figure 1: Preschool enrolment in absolute numbers, 2004-2010
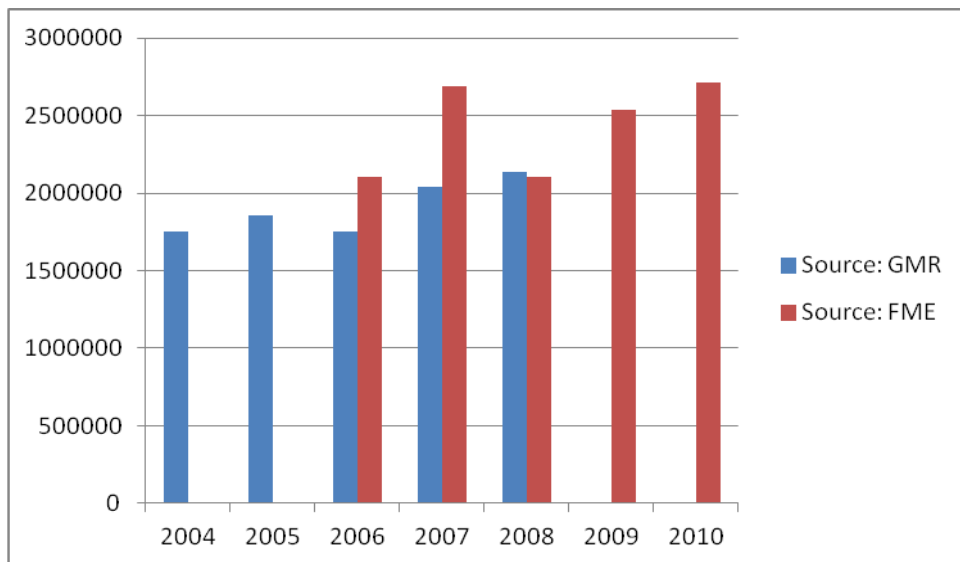
Sources: Federal Ministry of Education (2011:01) and UNESCO (2005-2011)

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[2] The first two editions of the GMR (the ones of 2002 and 2003/4) show blanks for preschool/ECCE enrolment in Nigeria. As of 2005, the GMRs contain data for the years 2001-2008, with the exception of the year 2003.

[3] The causes of the discrepancies are not clear; GMR data are based on data that are submitted by UNESCO member states themselves to the UNESCO Institute for Statistics.

An obvious limitation of figure 1 is that absolute numbers do not provide a good picture of progress towards higher, and eventually universal, enrolment levels. If the relevant age group of 3-5 year olds grows quicker than absolute enrolment, the enrolment *ratios* may even decline. Figure 2 (copied from the DHS-2008) shows that Nigeria's demographic profile has the classical shape of a pyramid. It is characterized by high fertility rates, with every generation of newborns being larger than the previous one. Under such demographic conditions, universalizing any form or level of education (or child service more in general) is like trying to hit a moving target.

Figure 2: Demographic profile of Nigeria (2008)
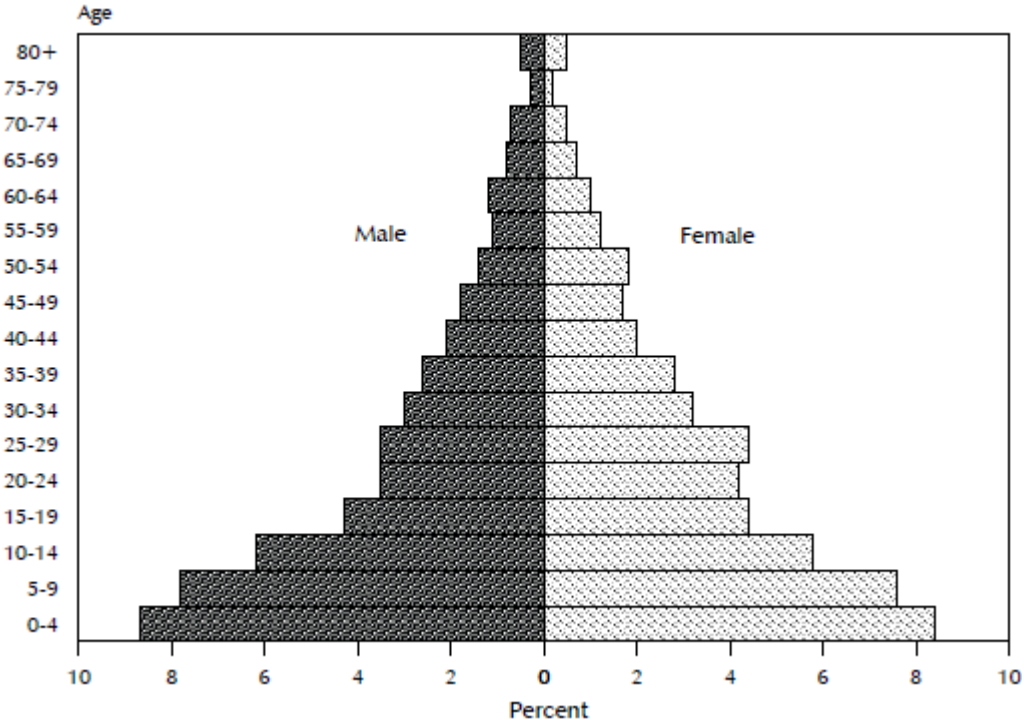
Source: National Population Commission / ICF Macro (2009:12)

At 4.73[4], Nigeria's Total Fertility Rate is relatively high, now in 2011, and it sits close to the African average of about 5[5]. Yet, there is a steady downward trend over 2000-2011 as figure 3 shows, interrupted only in 2005-2007. Projecting this trend into the future, Nigeria's Total Fertility Rate could reach a value of about 3 by the year 2030, again in line with the development of fertility in Africa as a whole[6].

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[4] http://www.indexmundi.com/g/g.aspx?c=ni&v=31

[5] http://www.economist.com/node/14302837

[6] ibidem

Figure 3: Total Fertility Rate of Nigeria, 2000-2011
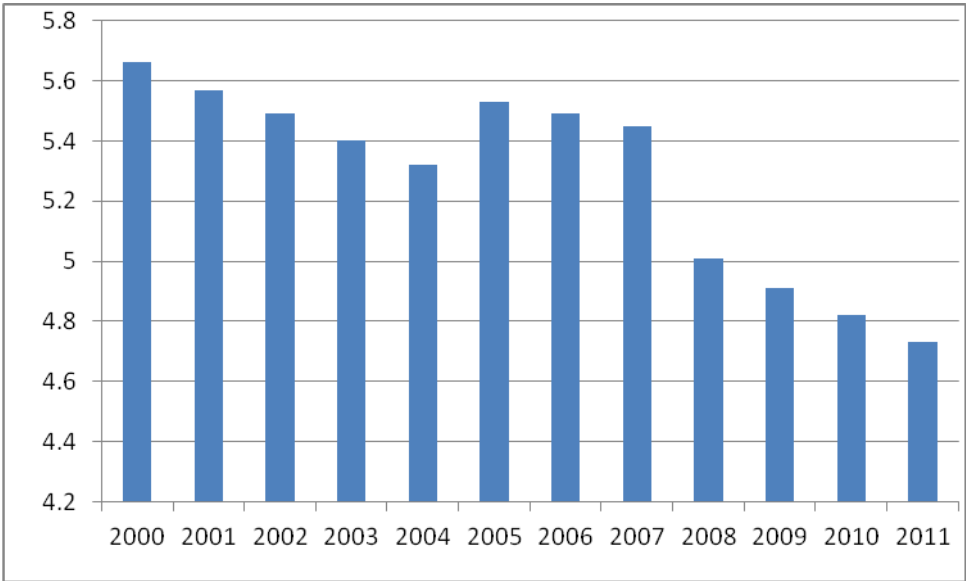
The future development of the fertility is relevant for making projections, later in this report. For now, the high current fertility causes us to ask whether the modest growth of enrolment in absolute numbers (see figure 1) translates into growth in enrolment ratios (percentages). Figure 4 shows the development of the Gross (GER) and Net (NER) Enrolment ratio in preschool education between 2001 and 2008. Since neither the NERDC report nor FME's Digest of Education Statistics publishes enrolment ratios (we shall use these reports extensively in following chapters), we rely on the GMRs as our sources.

Figure 4: GER and NER in Nigerian Preschool Education, 2001-2008
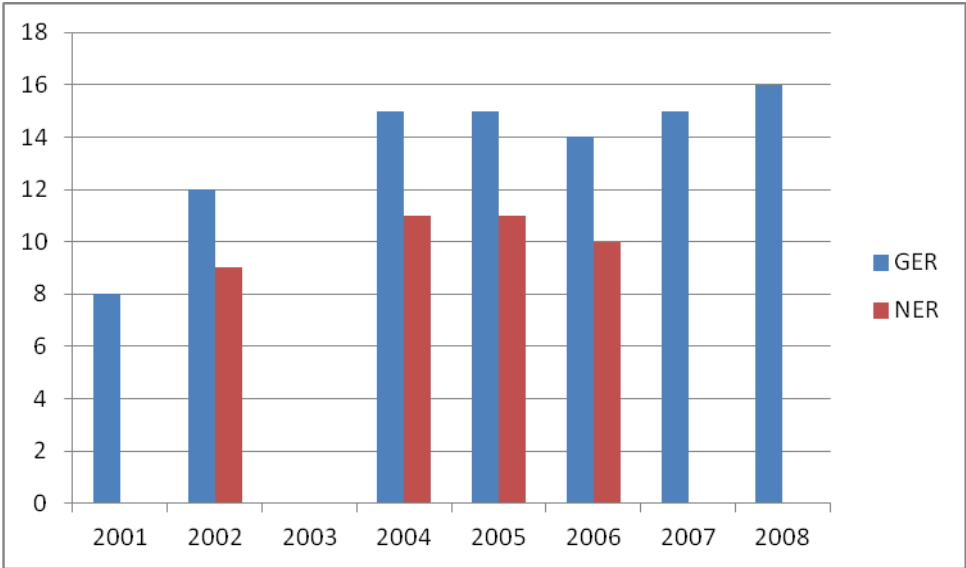
As one would expect on the basis of the high fertility rate, figure 4 shows that the GER has hardly increased since 2004, and that the NER even decreased between 2004 and 2006. The divergence between GER and NER implies that a part of the growth in terms of absolute numbers of children was accounted for by under- or over-aged children. Given the fact that children normally cannot enter preschool before the age of three, it is likely to concern over-aged children, i.e. children who remain in preschool education despite the fact that they have reached the primary school entry age. Indeed, many Nigerian children enter primary school at a relatively late age (Education Policy and Data Center, 2007:50) especially in the rural areas where primary enrolment peaks as late as at age 11.

At the same time, however, there are other children who make the step from preschool to primary school too early: at the age of 5 and even at the age of 4. This occurs especially where the preschool is closely linked to the primary school (Ejieh, 2006:62), which is the norm in formal preschool education. Later in this report we will discuss data that suggest that early transition from preschool to primary school is an even bigger problem than late transition. Both phenomena – early and late transition - can be observed in other countries as well. They constitute an unfavorable trend. Curricula – whether in pre-primary or primary education - should always be age-appropriate, hence school must be attended at the proper age. Ensuring timely transition is one of the core policy recommendations of this report.

It can further be noted that the average preschool GER for Sub-Saharan Africa as a whole was 17% in 2008 (UNESCO, 2011:293). So Nigeria is at risk of lagging behind other countries in its region. Cameroon, for instance, saw its preschool GER jump from 11% in 1999 to 25% in 2008, while Ghana went from 40% to 68% in the same period. Relatively poor countries such as Tanzania and Kenya stood at 34% and 48% respectively, in 2008.

Table 1 summarizes the enrolment data from the GMRs used in this chapter.

Table 1: Summary of national enrolment data, 2001-2008

	2001	2002	2003	2004	2005	2006	2007	2008
Absolute (x1000)				1753	1860	1753	2041	2135
GER	8	12		15	15	14	15	16
NER		9		11	11	10		
Share of private sector								29%

Sources: UNESCO (2005-2011)

For the year 2008, table 1 provides the share of private preschools in the total enrolment. This stood at 29%. In order to examine the development of the share of private provision in preschool education, we can use data from the FME's Digest. Table 2 shows that between 2006 and 2010, private provision first declined and then recovered, both in absolute numbers as in terms of market share[7].

Table 2: Public and private provision in preschool education, 200-2010

	2006	2007	2008	2009	2010
Public	1367326	2048082	1610175	1827657	1819752
Private	722080	637821	494845	718283	873571
Share of private sector	34.6	23.7	23.5	28.2	32.4

Sources: Federal Ministry of Education (2011:14)

Historically, the share of the private sector was much larger. Before the Child Act of 2004, only 10% of the provision was government owned (Aderinoye and Oduolowu, 2008:13). Concrete data for the period before 2006 could not be found, but it must be assumed, also in light of other data in this chapter, that (i) public provision has expanded quite rapidly for some time, increasing its share from 10% to about 70%, and (ii) that this expansion process has almost come to a halt in recent years.

For this report, we note (i) that the current share of the private sector is about one third, and (ii) that this share may decline as the public system expands further. The reason is that most of the families who can afford a high fee are likely to have already accessed the private market for preschool education, so that further growth will mainly take place in the public sector through policies to enhance access for the poorer groups. This assumption is supported by survey data – to be discussed later in this report – that show that access is strongly associated with wealth; most of the gains in terms of enrolment can be made among the people with a lower socio-economic status. Chang (2007:6) reaches a similar conclusion after a similar argumentation.

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[7] It must be noted that the GMR's figure for 2008 (29%) is not consistent with that of the Digest (23.5%).

2. Comparing Statistics with Household surveys

In addition to statistical data that are collected from within the education system, we can also make use of data from household surveys. These are sample based studies in which families are asked whether their children have attended any form of education within a certain number of weeks preceding the interview. In this chapter we compare enrolment and attendance ratios from five different sources:

- In table 1, we already noted that the GMR reports a GER of about 15 in recent years, and an NER of about 10.

- The FME's Digest reports only absolute numbers, but the author has converted these into enrolment ratios using population data from the Census of 2006. The outcome is an NER of 12.8% for 2010, but it must be kept in mind that this is an overestimation since the population in the relevant age bracket has of course grown between 2006 and 2010. Thus, the 12.8% is broadly consistent with the NER of 10% in the GMR.

- The NERDC report, too, reports absolute numbers. So the same exercise has been applied here, using again the 2006 Census. The outcome was somewhat higher: 16%. However, it must be kept in mind that the NERDC report does not have data for all States, and that the values for two States (Borno and Sokoto) were very high and were deleted, assuming these were errors.

- An example of a household survey is the Multiple Indicator Cluster Survey (MICS) from 2007 (REF). It is based on samples taken in each State of Nigeria. MICS is repeated periodically, and we will focus on the most recent one: MICS3. This study revealed a significantly higher outcome that the GMRs, the FME-data and the NERDC survey. According to MICS3, 32.1% of all children of 3-5 attended some form of preschool education in 2007, and among the 5 year olds this figure stood at no less than 82.9%.

- Another household survey is the Demographic Health Survey. In this case, the questionnaire focused on the children of 4-5. The outcome was even higher than that of MICSs: the DHS reported a Net Attendance Ratio of 58.1% (for the 4-5 year olds). This concerns data collected in 2010. The DHS also provides a Gross Attendance Ratio. This includes not only children of 4-5, but also those who are older and should have been in primary school. This Gross Attendance Ratio stands at 89.4% in 2010.

To summarize this comparison we can say that:

- Regular headcounts (GMR, Digest, NERDC) suggest an NER in the order of 10 to 15%.....

- .....but surveys reveal attendance rates of more than 30% (MICS) or close to 60% (DHS).....

- .....while attendance in the upper bound of the relevant age bracket even exceeds 80%.

These outcomes are quite surprising, since attendance rates (as found in surveys) are usually lower than enrolment rates (as found in official statistics) (Education Policy and Data Center, 2007:61). The reason for this is that some children enroll officially in (pre-)school but often fail to attend due to household circumstances, while the reverse is hardly possible: children cannot attend school if they are not enrolled. So how can preschool attendance in Nigeria by higher than official enrolment?

The most plausible answer – apart from possible errors in the data – is that substantial numbers of children in Nigeria are enrolled in programs that are not covered by the official statistics. As household surveys such as MICS and DHS ask parents whether their child attends a program *without* exempting non-formal programs from this question, one answer to the question regarding the discrepancy between enrolment and attendance is bound to lie in non-formal provision.

Indeed, non-formal provision can be substantial. In Indonesia, for instance, many children are enrolled in Qur'anic preschools (van Ravens, 2009), while in Bangladesh there are national and international NGOs that complement the formal school-based system (van Ravens, 2008). The latter type of non-formal provision is often "community-based"; many developing and transition countries are seeking to expand preschool education through this type of institution.

For Nigeria, Ejieh (2006:62) reports that UNICEF had established 2045 such community-based early childhood development centers in rural and poor urban areas by 2004. Overall enrolment stood at about 75,000 children. A more recent figure could not be found. However, seen against the backdrop of the more than 10 million[8] children of 3-5 who are not in the

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[8] According to the latest Census, about 12.5 million children of 3-5 lived in Nigeria in 2006. About two million are in formal preschool. So more than 10 million are not enrolled in the formal system.

formal preschool system, it seems unlikely that the community-based centers cater for a significant share of Nigeria's needs, today in 2011.

Another possible explanation for the gap between the official statistics and the outcomes of MICS and DHS is faith-based education. An invaluable report that sheds light on this issue was written by Aderinoye and Oduolowu (2008). They studied traditional Qur'anic Schools in six states with large Muslim populations: Bauchi, Borno, Kano, Katsina, Sokoto and Zamfara. In table 3, some of their findings concerning enrolment have been combined with data from the Digest of Education statistics. For each of the six states, table 3 first presents the absolute number of children in faith-based preschools. For this category, the overall enrolment is broken down into male and female. The following columns present absolute enrolment in public and private preschool, followed by the total numbers (fait-based + public + private) in each state. For better comparison, the last three columns present the shares of faith-based, public and private preschool. Comments follow below the table.

Table 3: Enrolment (ages 3-5) in faith-based, public and private preschool in six States, 2007

	Absolute numbers						Percentages		
	Faith-based			Public	Private	Total	Faith-b.	Public	Private
	Male	Female	All						
Bauchi	8115	7709	15824	28111	15628	59563	26.6	47.2	26.2
Borno	6015	2865	8880	15366	9599	33845	26.2	45.4	28.4
Kano	43105	32180	75285	64857	4940	145082	51.9	44.7	3.4
Katsina	13155	6869	20024	26228	10853	57105	35.1	45.9	19.0
Sokoto	13809	11377	25186	32510	978	58674	42.9	55.4	1.7
Zamfara	4685	3551	8236	8634	991	17861	46.1	48.3	5.5
Total/average	88884	64551	153435	175706	42989	372130	41.2	47.2	11.6

Sources:
- First three columns: Aderinoye and Oduolowu (2008:38).
- Middle three columns: FME (2011:6-7).
- Last three columns: calculations by the author of this report.

Note: in their report, Aderinoye and Oduolowu present data for the 2, 3, 4 and 5 year olds. Here in table 3, the 2 year olds are not included in order to keep their figures comparable with the FME data, which concern just the 3-5 year olds.

It is clear from table 3 that faith-based preschool education attracts substantial numbers of children in these States. In Zamfara and Kano their share is respectively close to and higher than 50%. The share of public preschool is remarkably constant across these six states; in no state is it far away from 50%. The variation is found in faith-based preschools (which varies roughly from a quarter to half of the enrolled children) and in the private sector (which varies

roughly from close to zero to a quarter). This suggests that faith-based education offers compensation, in a manner of speaking, for limited access to private providers: where few families can afford private preschool, many turn to the faith-based institutions. Table 3 also shows some important gender gaps, especially in Borno and Katsina. In these two states, about twice as many boys are enrolled.

This report will return to the issue of faith-based preschool, adopting some of the key recommendations by Aderinoye and Oduolowu. For now, the question is only this: can the existence of faith-based preschool education explain the gap between the NER of about 10-15% that the statistical data suggest, versus the much higher attendance rates reported in the MICS and DHS? The answer must be no. The highest share of faith-based education is found in Kano, where it stands at 51.9%. In principle, that would be close to sufficient to lift an enrolment rate of 15% to an attendance rate of about 30%. But in the five other states, religious enrolment is lower than the 51.9% found in Kano. And more importantly, the state-specific data in the next chapter will show that Kano, together with Bauchi, Borno, Katsina, Sokoto and Zamfara, is among the states where – more or less by exception - the difference between the outcomes of MICS and the official statistics is not so pronounced, or even negative. Finally, most States in Nigeria have smaller Muslim populations than these six.

So while faith-based education is an important factor in preschool education in Nigeria, it cannot explain the gap between official statistics and household survey outcomes. Further study is needed, with apologies for the cliché. More alignment between MICS and DHS would also be important: since even these two sources produce different outcomes, it may be the case that they differ when it comes to the phrasing of questions regarding preschool attendance in their questionnaires. Ideal would be a household survey that specifically asks which type of preschool children attend, and for how many hours per week. For now, the inexplicable gap between the statistics and the household surveys will have to be a recurrent theme in this report. Two more possible explanations will be explored later in this report: the possible role of private daycare facilities, and a potential confusion between pre-primary and primary education within the household surveys.

When it comes to preschool education, Nigeria is like a traveler who knows where s/he is going but does not know where s/he is. It is difficult to chart a course from A to B when the coordinates of B are known while those of A are not.

3. Enrolment by State, by age and by gender

This chapter starts off with the data from the NERDC. In table 4, these are converted into enrolment ratios using the 2006 Census. Explanations follow after the table.

Table 4: Hypothetical Enrolment Ratios based on NERDC survey (2010) and Census (2006)

	3M	3F	3	4M	4F	4	5M	5F	5	AllM	AllF	All
Abia	19.3	20.1	19.7	19.3	19.5	19.4	18.8	20.1	19.4	19.1	19.9	19.5
Adamawa	3.7	3.8	3.7	3.6	3.8	3.7	3.5	3.5	3.5	3.6	3.7	3.7
Akwa Ibom	28.3	36.1	32.0	34.6	40.5	37.4	35.4	42.5	38.8	32.7	39.7	36.1
Anambra	41.6	43.0	42.3	41.3	42.7	42.0	40.8	42.1	41.4	41.2	42.6	41.9
Bauchi	9.9	9.8	9.9	11.1	9.8	10.5	10.2	11.9	11.0	10.4	10.5	10.4
Bayelsa												
Benue	3.1	3.8	3.4	2.8	2.6	2.7	2.3	1.7	2.0	2.7	2.7	2.7
Borno	158.8	205.3	180.6	150.0	176.7	162.6	143.6	179.2	160.4	151.1	187.5	168.2
Cross River												
Delta	15.2	16.2	15.7	6.6	7.0	6.8						
Ebonyi	13.6	17.9	15.7	20.9	27.4	24.1	35.4	46.3	40.7	23.1	30.4	26.7
Edo	24.5	26.1	25.2	17.8	19.3	18.5	15.5	16.4	16.0	19.3	20.6	19.9
Ekiti												
Enugu				5.8	6.8	6.3	79.1	82.0	80.5			
Gombe	4.1	4.1	4.1	3.9	4.4	4.1	4.1	4.6	4.4	4.0	4.4	4.2
Imo	61.6	69.2	65.2	57.8	65.1	61.3						
Jigawa												
Kaduna												
Kano							33.9	30.5	32.3			
Katsina												
Kebbi	3.0	2.2	2.6	5.8	4.2	5.0	20.9	15.2	18.2	9.6	7.0	8.3
Kogi	12.6	15.0	13.8	12.9	15.2	14.0						
Kwara												
Lagos	10.3	7.6	8.9	9.9	8.5	9.2	11.8	7.8	9.8	10.7	8.0	9.3
Nasarawa	10.0	10.1	10.1	7.2	6.0	6.6	3.0	2.3	2.6	6.8	6.3	6.6
Niger	11.7	11.3	11.5	16.0	15.3	15.6	7.5	7.1	7.3	11.8	11.3	11.5
Ogun												
Ondo	45.6	50.1	47.8	25.2	28.9	27.0	3.1	3.4	3.2	24.7	27.6	26.1
Osun												
Oyo	20.3	23.7	22.0	40.2	45.4	42.8	43.6	49.8	46.6	34.6	39.5	37.0
Plateau												
Rivers	36.7	40.9	38.7	14.8	22.5	18.5	17.1	23.1	20.0	22.9	28.8	25.7
Sokoto	140.3	29.4	87.8	201.4	31.8	120.7	220.4	54.1	141.0	185.8	38.0	115.5
Taraba	5.4	4.0	4.7	4.1	3.0	3.5	1.2	0.9	1.1	3.6	2.7	3.2
Yobe	5.0	5.0	5.0	3.6	3.9	3.8	2.5	2.2	2.3	3.7	3.7	3.7
Zamfara	4.3	3.3	3.8	4.2	2.8	3.5	9.4	5.4	7.4	5.9	3.8	4.9
FCT	14.7	13.2	13.9	11.2	11.0	11.1	6.2	5.2	5.7	10.9	9.9	10.4

The excellent NREDC study managed to collect enrolment data for most states of Nigeria. However, table 4 does show some gaps. This concerns states for which data were absent or incomplete (e.g. only for urban areas, or only for rural areas, or only for a part of the age group). In the case of Lagos State, where only data for urban areas was available, these data have been kept, assuming that most if not all children in Lagos State live in urban settings.

In order to be able to compare the data from the NERDC report, they were converted into enrolment ratios by dividing them - for each age group and for the whole age range of 3-5 ("all") – by the number of boys and girls that live in the respective States. Ideally, these population data are from the same year as the enrolment data. However, population data were not available for 2010. Therefore, data from the 2006 Census were used. Obviously, by combining 2010 enrolment data with 2006 population data, the resulting enrolment ratios are over-estimated; between 2006 and 2010, the number of children in the 3-5 age bracket has augmented. It is therefore that we speak of "hypothetical" enrolment ratios. This caveat needs to be kept in mind when working with these figures.

That said, table 4 reveals a number of points:
- The ratios for Borno and Sokoto exceed the value of 100, so assuming that the population data are right, the enrolment data must be errors. (In some cases, enrolment ratios can exceed the value of 100, but the enrolment data from the Digest suggest an enrolment ratio of only 4% for Borno, while even MICS reports a low figure: 6.8%). The problem is of course that while the errors concerning Borno and Sokoto are obvious, the data for some of the other States may also contain some less conspicuous errors. For this reason, we will also look at other sources: the Digest, MICS and DHS.
- The gender gaps are limited compared to the ones we noted in faith-based education (see the preceding chapter). In some States, gender gaps are in favor of girls.
- In some states, we see an unusual pattern, in that enrolment among the 3 year olds is highest, among the 4 year olds lower, and among the 5 year olds lowest.

To further explore these issues, table 5 on the next page presents enrolment ratios based on the official data from the Digest and, again, the 2006 Census. Since table 5 has no missing values – all states are included – we can in this case consolidate at national level ("total").

Table 5: Hypothetical Enrolment Ratios based on official statistics (2010) and Census (2006)

	3M	3F	3	4M	4F	4	5M	5F	5	AllM	AllF	All
Abia	29.9	31.8	30.8	29.0	30.1	29.5	25.5	27.4	26.4	28.1	29.8	28.9
Adamawa	10.7	11.1	10.9	6.4	7.1	6.7	2.1	2.3	2.2	6.5	6.9	6.7
Akwa Ibom	54.1	61.3	57.5	26.3	30.3	28.2	6.9	8.3	7.6	29.1	33.3	31.1
Anambra	42.2	45.2	43.7	41.4	45.2	43.2	41.2	43.7	42.5	41.6	44.7	43.1
Bauchi	9.5	9.6	9.6	7.3	7.4	7.3	2.2	2.4	2.3	6.5	6.5	6.5
Bayelsa	4.7	5.2	5.0	3.4	3.9	3.6	2.9	3.5	3.2	3.7	4.2	3.9
Benue	3.9	3.7	3.8	1.9	1.9	1.9	1.0	0.9	0.9	2.3	2.2	2.2
Borno	5.6	5.7	5.7	5.0	4.5	4.7	1.6	1.6	1.6	4.1	4.0	4.0
Cross River	29.2	30.7	29.9	15.0	16.2	15.6	12.7	13.7	13.2	19.0	20.3	19.6
Delta	19.9	20.8	20.4	14.7	15.4	15.1	9.9	10.6	10.2	14.9	15.6	15.2
Ebonyi	15.4	16.1	15.7	8.1	8.7	8.4	7.0	7.1	7.1	10.2	10.7	10.5
Edo	21.8	23.2	22.5	16.6	17.6	17.0	15.6	16.4	16.0	18.0	19.1	18.5
Ekiti	22.6	24.1	23.3	14.3	15.9	15.0	0.8	0.9	0.8	12.4	13.5	12.9
Enugu	35.8	36.7	36.2	27.8	28.5	28.1	24.9	26.0	25.4	29.4	30.4	29.9
Gombe	8.2	8.8	8.5	4.1	4.5	4.3	1.8	1.8	1.8	4.8	5.1	4.9
Imo	36.3	37.5	36.9	32.0	33.5	32.7	26.8	28.8	27.8	31.7	33.3	32.4
Jigawa	12.1	10.7	11.4	3.4	3.4	3.4	2.1	1.8	1.9	6.1	5.4	5.8
Kaduna	22.1	21.9	22.0	15.5	15.2	15.3	4.7	4.6	4.6	14.4	14.1	14.2
Kano	23.4	22.7	23.1	9.0	9.1	9.1	4.5	4.6	4.5	12.6	12.4	12.5
Katsina	12.0	11.3	11.7	7.8	7.1	7.4	2.6	2.3	2.5	7.7	7.0	7.4
Kebbi	6.8	5.8	6.3	2.9	2.4	2.7	1.7	1.4	1.5	3.9	3.3	3.6
Kogi	14.3	17.0	15.6	12.1	14.1	13.1	2.5	3.0	2.7	9.8	11.6	10.6
Kwara	17.9	18.3	18.1	9.9	9.9	9.9	3.7	4.4	4.0	10.7	11.0	10.8
Lagos	14.6	14.1	14.4	13.1	13.1	13.1	3.6	3.9	3.8	10.6	10.4	10.5
Nasarawa	11.0	10.9	10.9	7.7	7.6	7.6	4.2	4.2	4.2	7.7	7.6	7.7
Niger	19.0	18.1	18.6	10.4	9.7	10.1	3.7	3.3	3.5	11.3	10.6	11.0
Ogun	30.0	30.3	30.1	26.0	26.2	26.1	10.1	10.3	10.2	22.2	22.4	22.3
Ondo	28.9	31.3	30.1	22.4	23.8	23.1	15.0	17.0	16.0	22.1	24.1	23.1
Osun	10.8	11.8	11.3	12.5	13.4	12.9	39.8	45.4	42.5	21.1	23.6	22.3
Oyo	29.6	29.3	29.4	25.8	28.7	27.2	24.1	25.4	24.7	26.5	27.8	27.2
Plateau	4.8	4.7	4.7	3.8	3.6	3.7	1.5	1.6	1.5	3.4	3.3	3.4
Rivers	13.8	15.5	14.7	10.0	10.9	10.5	6.6	7.5	7.0	10.2	11.3	10.7
Sokoto	13.1	10.3	11.7	5.1	4.1	4.6	2.6	2.2	2.4	7.1	5.7	6.4
Taraba	4.7	4.8	4.7	3.5	3.6	3.5	1.1	1.1	1.1	3.1	3.2	3.2
Yobe	6.3	5.8	6.1	4.4	4.5	4.4	2.8	2.7	2.7	4.5	4.4	4.5
Zamfara	6.7	5.1	5.9	4.2	2.6	3.5	3.7	2.6	3.2	4.9	3.5	4.2
FCT	13.8	13.1	13.5	10.7	10.1	10.4	4.4	4.7	4.6	9.8	9.4	9.6
Total	17.5	17.8	17.6	12.0	12.5	12.3	7.9	8.4	8.1	12.6	13.0	12.8

Sources for Tabel 4: Federal Ministry of Education (2011) and NERDC (2011)
Note: 3M means males of 3 years old. Simply 3 refers to all children of age 3, boys and girls taken together.
"All" stands for all ages (3, 4 and 5 taken together).

Table 5 confirms that there is a small gender gap in favor of girls at national level for all ages:

- Age 3: 17.5 for boys against 17.8 for girls
- Age 4: 12.0 for boys against 12.5 for girls
- Age 5: 7.9 for boys against 8.4 for girls
- All ages together: 12.6 for boys against 13.0 for girls

If we look at state level, we see some larger disparities and in some cases these are in favor of boys, but by and large there are no significant gender issues in Nigerian (formal) preschool education. We need to take into account however, that overall enrolment stands at 12.8%, and that enrolment is associated with socio-economic status (as MICS and DHS will show). So if hardly more than 10% of the Nigerian children are enrolled in preschool, these are bound to be middle and upper class children. It remains to be seen if gender equality is maintained as the system expands in future, taking up children from the lower end of the social spectrum.

Tablel 5 also confirms the rather unusual "decrease with age":
- At age 3, 17.6% of all children (boys and girls together) are enrolled
- At age 4, 12.3% of all children are enrolled
- At age 5, 8.1% of all children are enrolled

This is more or less confirmed by the 2007 edition of the GMR (UNESCO, 2007:140-141). This GMR contains enrolment profiles for 60 countries, from which figure 5 presents the one of Nigeria and, for comparison, the one of Guatemala. The dark-brown bars indicate pre-primary enrolment; the light-brown bars stand for primary school.

Figure 5: ECCE enrolment profiles of Nigeria and Guatemala, 2007
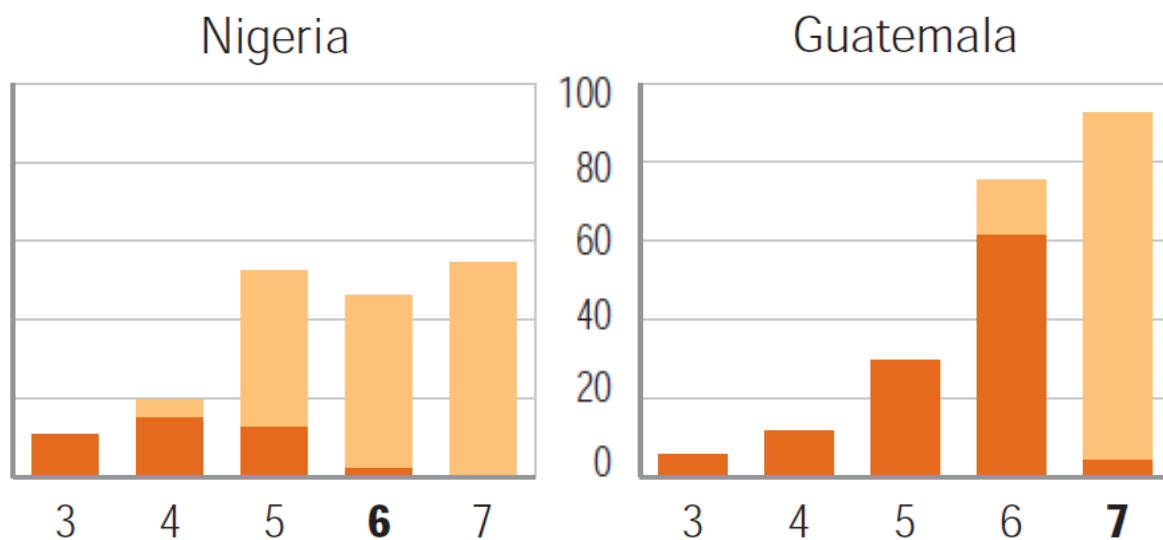
Source: copied from UNESCO (2007:140-141)

The profile of Guatemala is typical for most of the 60 countries in the GMR's analysis (to view more profiles, go to: http://www.unesco.org/education/GMR/2007/chapter6.pdf). The lowest enrolment is at age 3. Apparently, few families have the means to enroll children already at that age. With regards to age 4, there are already more families willing and able to enroll the children. Then, enrolment rises further at age 5 and peaks at age 6. The entry age of primary education in Guatemala is age 7; at that age most children are in primary school. There are two deviations:

- At age 6, some children are already in primary school.
- At age 7, a small number is still in pre-primary whereas they should be in primary.

In other words, Guatemala, too, has the problem of untimely transition (too early and too late), but quantitatively it is a limited problem.

In Nigeria we see the reverse. Figure 5 shows that preschool enrolment *decreases* with age[9]. The figure also tells us why: the children that "drop out" of pre-primary do not drop out of education altogether; they simply make a premature transition to primary. Many do so at age 5, and some do so even at age 4. We already touched upon this issue in the previous chapter but now we see the evidence. More than half of the children of Nigeria are enrolled at 5, but by far most of them are in primary school instead of pre-primary education.

This is very likely be part of the answer to the question why MICS and DHS report so many more children (especially those of age 5) than the official statistics. In fact, it is unavoidable: MICS and DHS claim that more than 80% of the five year olds are in a pre-primary program. That would leave only 20% of the five year olds "available" for early entry in primary school, while figure 6 shows that no less than 40% of all the five year olds are actually in primary school. This means that a substantial number of the respondents of MICS and DHS say "yes" to the question whether their 5 year old child is enrolled, even if that child is in primary school instead of preschool. Despite the fact that the survey question pertains to pre-primary programs, it could be that the respondents fail to see the distinction between pre-primary programs and primary school, the more so because that distinction is not often very visible.[10]

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[9] In figure 5, this decrease starts at age 4. But this concerns data from 2007. According to the Digest, the decrease already starts at age 3, in 2010.

[10] In some countries, pre-primary classes (i) share the teachers with the host primary school, (ii) are held in the same type of classrooms with the same line-up of tables and benches, (iii) use more or less the same materials as the lower grades in primary school, and (iv) have few items (posters, toys) to distinguish them from primary classes. The author has not been able to observe any classes in Nigeria, but given the scarcity of ECCE-specific

So in addition to the hypothesis that faith-based and community-based program explain part of the gap between statistics and household surveys, we now note a third factor: premature transition to primary school. Later in this report we will come across a fourth factor: non-registered daycare facilities. For now, we can already note one important implication of the programmatic diversity: in as far as it is true that many children of preschool age are not in formal preschool but in faith-based programs, community-based centers, non-registered daycare centers or in primary school, this means that the Government and the families of Nigeria are already financing the enrolment of a large proportion of the children of preschool age, especially of those of five years old. Universalizing preschool education is not a matter of creating facilities from scratch for about 90% of all the children – which would be a daunting challenge – but rather a matter of upgrading the existing provision and bringing it onto the national policy framework. This will be the central message of this report.

In fact, we can already formulate some preliminary recommendations at this stage. Universal access to preschool can be achieved by the following package of strategies:

- Ensure a timely and hence age appropriate transition entry from preschool to primary school. Every child should make that step around the age of 6. Not sooner, not later.
- Team up with the religious programs. Work with them to make these programs more holistic. Aderinoye and Oduolowu (2008) provide more elaborated recommendations.
- Bring the community-based centers under the aegis of the national preschool system step by step (the experience of Kyrgyzstan is interesting in this regard.
- Map the "real" exclusion (i.e. children who are entirely excluded from any program whatsoever) and address this by new investments.

The bigger part of the costs of universalizing preschool education are likely to be linked to the last strategy: addressing real exclusion. This is not to say that the other strategies come without costs. The unit costs of preschool is usually higher than that of primary education, since groups in preschool are smaller and/or require assistant teachers. Integrating religious programs in the formal system requires refresher training for Mallams and investing in materials, toys and inventory. Integrating the community-based programs, too, may require additional training and paying the official salary to the teachers. But the bottom line is: there

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materials and inventory (FME, 2011), even in private preschools (Awoyele and Ogundipe, 2008), such may also be the case in some preschools in Nigeria.

is more capacity in Nigeria than the official net enrolment ratio of 12.8% suggests, and that capacity is already paid for, one way or another.

To complete this chapter, figures 6 (concerning ages 3-5) and 8 (just age 5) present three enrolment/attendance ratios in one framework: (i) the ratios based on the NERDC survey and the 2006 Census (with missing data for some states, hence no national average for Nigeria); (ii) the ratios based on the data from the Digest of Education Statistics and the 2006 Census, and (iii) the MICS3 data.
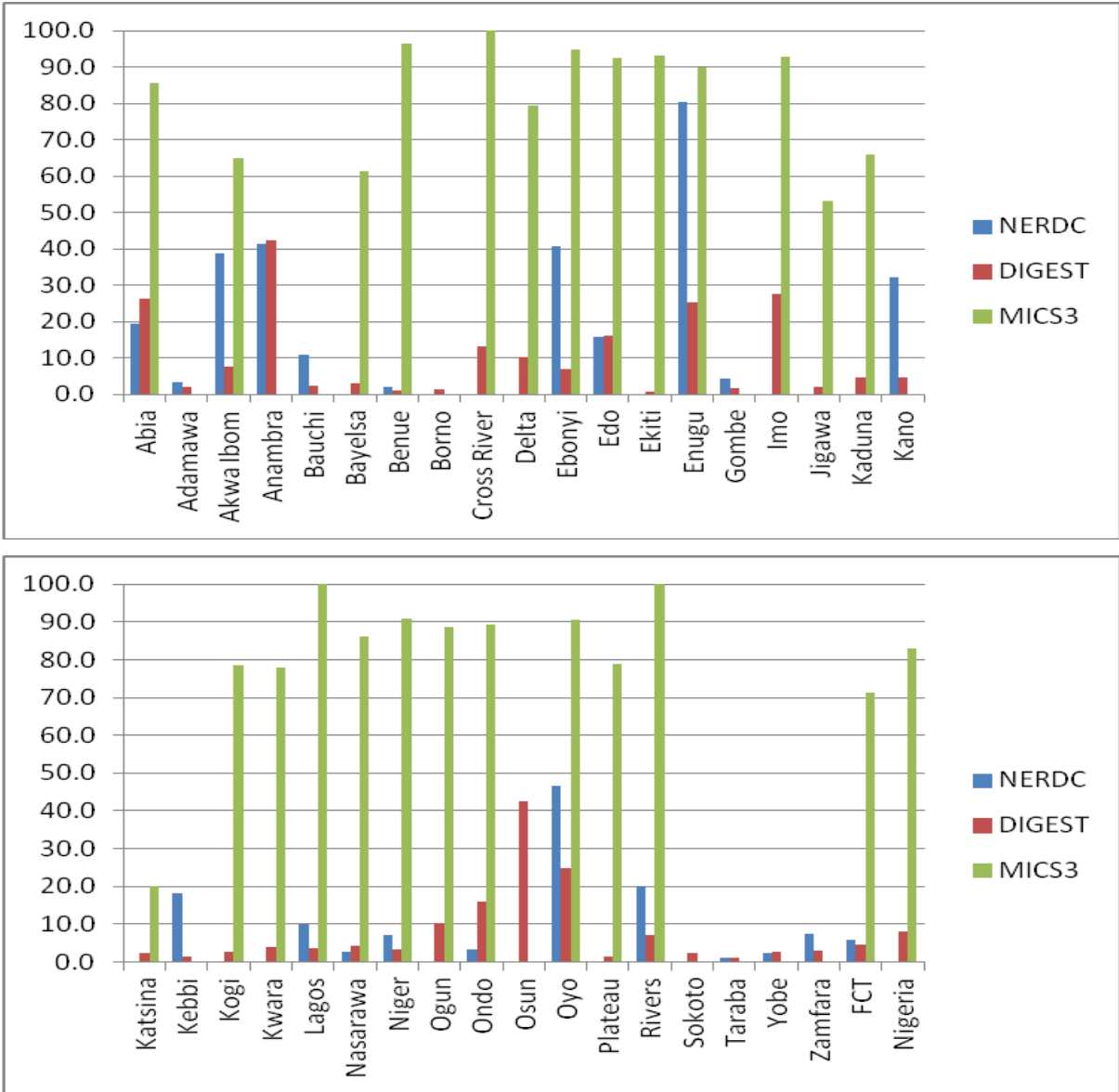
Figure 6: Enrolment rates (age 3-5) by State, based on three different sources, 2007/2010
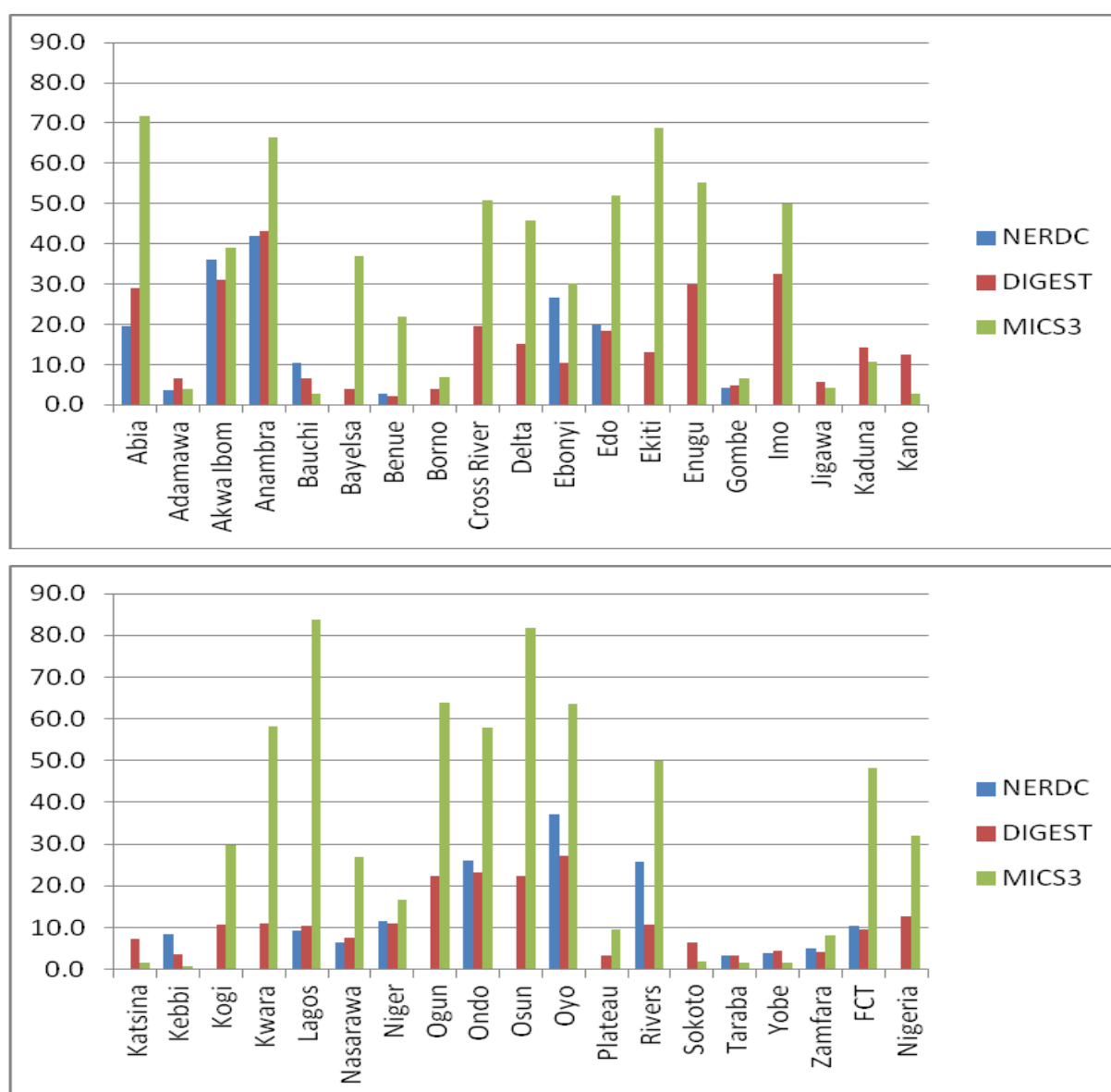
Sources: Federal Ministry of Education (2011); NERDC (2011); National Bureau of Statistics / UNICEF (2007)

Figure 6 shows once again the striking differences between the enrolment data from NERDC and the Digest (blue and red) versus the attendance data from MICS3 (green). Among the states with the largest gaps are the urban regions of Lagos and the Federal Capital Territory. It may be the case that private daycare centers (e.g. catering for double income families) play a role here. Low by any standard is enrolment in Adamawa, Bauchi, Borno, Gombe, Jigawa, Katsina, Kebbi, Plateau, Sokoto, Teraba, Yobe and Zamfara. None of the values exceed 10% in any of the States. Even more striking are the differences seen in figure 7 (just age 5). In several states, MICS3 found attendance rates close to or above 90%. The data used for figures 6 and 7 can be found in the Annex of this report.

Figure 7: Enrolment rates around age 5 by State, based on three different sources, 2007/2010


Sources: Federal Ministry of Education (2011); NERDC (2011); National Bureau of Statistics / UNICEF (2007)

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4. Enrolment and Income

Having explored the patterns of preschool enrolment in Nigeria, we now ask the question: to what extent is exclusion from preschool education driven by poverty? How does the income of States and families influence the chance that children have access?

MICS3 provides valuable insights in the relation between enrolment and income. Within one and the same questionnaire, families were asked about preschool attendance as well as family income. The latter indicator was broken up into five quintiles (income groups that are the size of 20% of the population). Figure 8 shows the enrolment for each of these quintiles.

Figure 8: Enrolment by family income, 2007
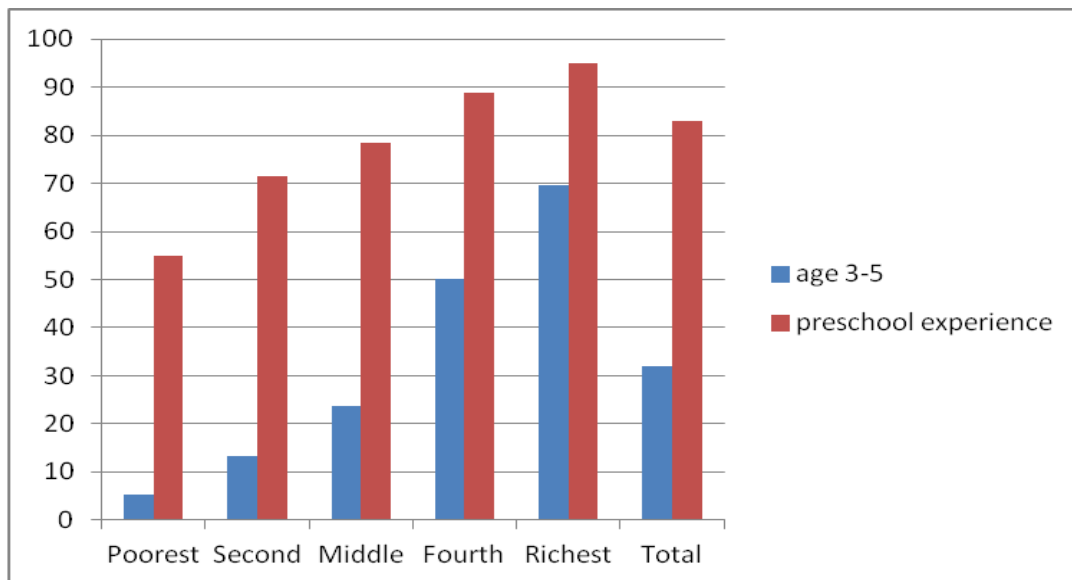
Source: National Bureau of Statistics / UNICEF (2007)

It is clear from figure 8 that enrolment is strongly linked to family income. The blue bars (concerning ages 3-5) as well as the red bars (concerning the children in primary grade 1 who were in preschool the year before) go up very gradually. The pattern differs from what the author has found in several other developing countries, where enrolment in the three lowest quintiles is very low indeed, and suddenly jumps to much higher levels in the two highest quintiles. The fact that the pattern in Nigeria is much more gradual suggests that there be various affordable preschool modalities, and this gives further support to the hypothesis that faith-based preschools, community-based centers, or simply primary schools play a role.

Figure 9 is similar to figure 8. It has the education of the mother as the independent variable.

Figure 9: Enrolment by mother's education, 2007
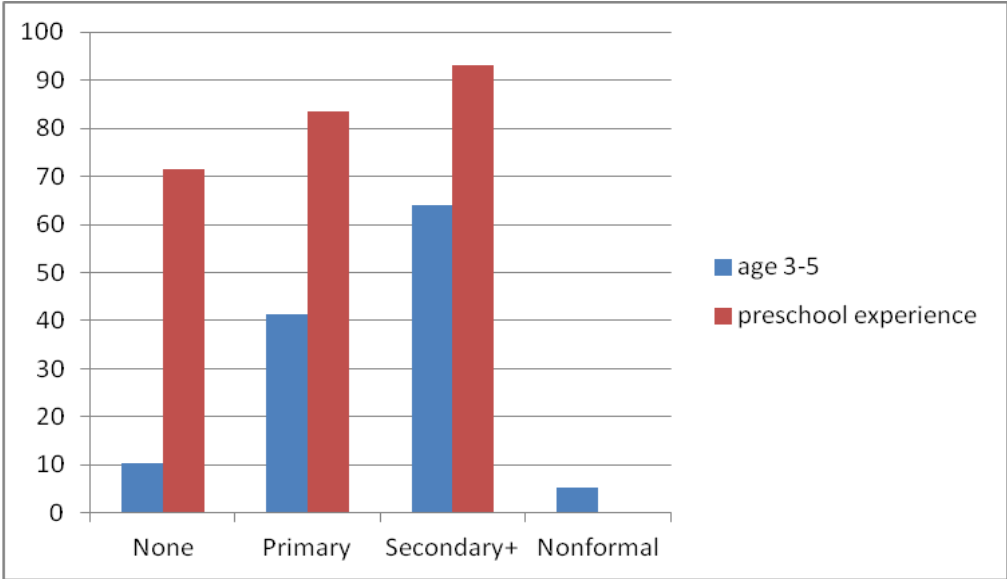
Source: National Bureau of Statistics / UNICEF (2007)

Not surprisingly, enrolment is also strongly associated with maternal education (women in poor families tend to have lower education levels). However, there is a remarkable gap between the blue and the red bar above "none". In other words: while only 10% of the children of uneducated mothers enroll at age 3 or 4, as much as 70% of these children have preschool experience once in primary grade 1. This is difficult to explain, and once again it raises the question: which program is it that so many children enter at age 5, having been excluded at earlier ages? Could it be primary school?

Exactly the same is observed when we look at the distinction between urban and rural children. MICS reveals that among the 3-5 year olds, only 21 or the rural children are enrolled against 57.3% of the urban children, but when it comes to preschool experience the rural children jump to 77.5%, even though the urban children stay ahead at 91%.

Thus far, we have examined the relation between income and enrolment at family level. Now we turn to the State level. This is necessary because the State is the key actor in Nigeria's governance philosophy. A federal policy to counter inequalities in preschool enrolment cannot target at family level; it has to target at State level.

The best indicator for income at State level would be per capita GNP/GDP per State (i.e. the value of the production of that State, divided by the total number of inhabitants, young and old, rich and poor). Despite internet-searches and consultations, the author of this report has not been able to find this type of information for Nigerian States. Perhaps it is available, but due to the cancellation of the mission (see Introduction) it could not be retrieved.

As proxies for average income at State level, we first work with "poverty incidence" and then with (un)employment rates. Oyekale et al (2006:47) present data per State regarding the "incidence of poverty" in 2004. Essentially, this indicator draws a poverty line and tells us which percentage of the population of that particular State is under that income level. It does not indicate how far people are generally below or above that line, but as long as the indicator has been applied equally in each of the States, it can serve our purpose of investigating the relation between income and preschool enrolment. Figure 10 consists of two scatter plots: one in which the enrolment data from the Digest are the dependent variable, and one in which the MICS3 data are used. The data for this figure can be found in Annex Table II.

Figure 10: Enrolment in preschool at ages 3-5 (2010/2007) by poverty incidence (2004)
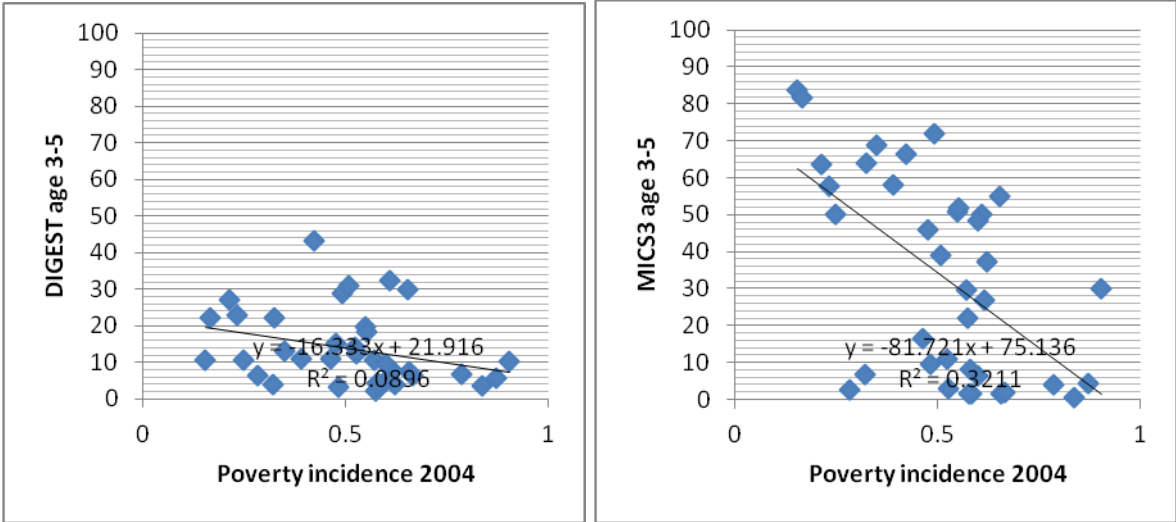
Sources: Oyekale et al (2006); Federal Ministry of Education (2011); National Bureau of Statistics/UNICEF (2007)

The pattern that figure 10 reveals is very surprising. While enrolment in the formal programs that the Digest covers is rather weakly associated with poverty incidence (as one would expect given the fact that enrolment in formal preschool is not expensive) we see in the scatter

plot on the right hand side (based on MICS) a very clear distinction between two sub-groups of States:

- a sub-group of 22 States that is situated along the diagonal that goes from upper left corner to lower right corner, and
- a sub-group of 15 States situated along the horizontal axe, not exceeding the attendance level of 20%.

In the first sub-group, preschool attendance is strongly associated with States' incidence of poverty: the richer the State's population, the higher the attendance. This suggests the strong presence of programs where a fee must be paid. This cannot concern just the private sector within the formal preschool system; that would have shown also in the scatter plot on the left hand side in figure 10. Thus, there must be private *non-formal* programs in Nigeria. Most likely, this concerns daycare centers on a for-profit basis that cater for double-job families and other households where there is a need to have children cared for during the whole day. They may range from large centers to small home-based facilities. To distinguish these private/non-formal programs from private/formal programs, we shall refer to them as "commercial" programs or daycare centers in this report. These commercial programs are likely to be a part of the answer to the question why household surveys report higher participation than official statistics.

In the second subgroup in figure 10 (right hand side), poverty hardly matters for attendance; in these 15 States, preschool enrolment is low across the board, despite significant variation in poverty. These States are: all States in the North East region; all States in the North West region; and two States in the North Central region (Niger, Plateau). The group of 15 States comprises all of the six States covered in the aforementioned study by Aderinoye and Oduolowu. This supports our hypothesis that although faith-based preschools attract almost as many children as formal preschool in these States, the overall enrolment levels are still low.

Figure 11 is similar to figure 10 but zooms in on the children of five years old (or for MICS: the children in grade 1 who were in preschool the year before). We can see that the pattern hardly changes for the scatter plot on the left hand side: even for the five year olds, enrolment in formal preschool is hardly associated with poverty incidence. But the pattern changes dramatically on the right hand side: the distinction between the two subgroups has completely disappeared, and so has the strong association with poverty.

Figure 11: Enrolment in preschool at age 5 (2010/2007) by poverty incidence (2004)
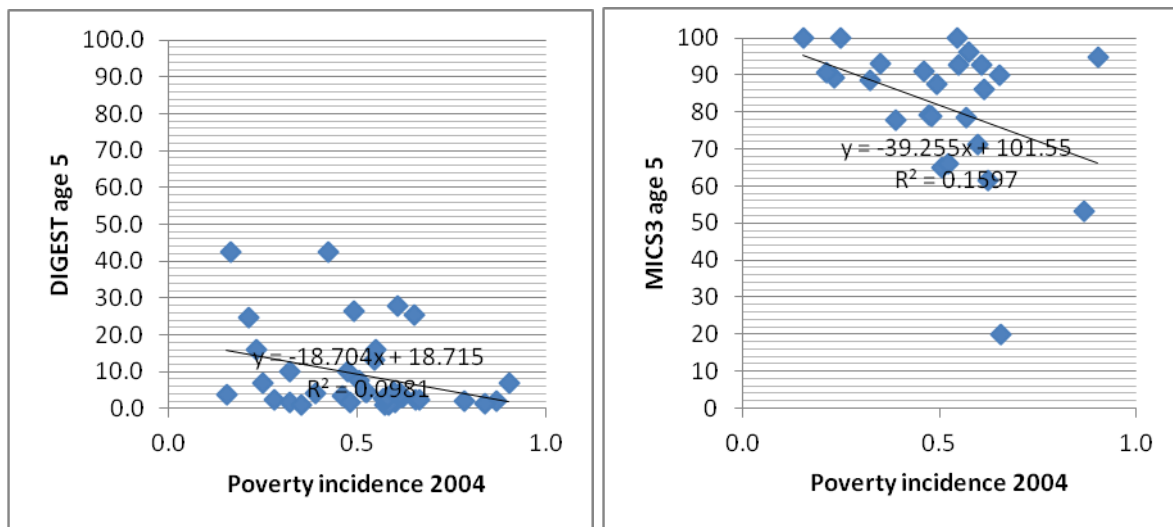
The question that figure 11 raises is: which program is it that lifts enrolment among five year olds to high levels in nearly all States, rich and poor, north and south? It cannot be formal preschool (otherwise it would also show in the scatter plot on the left hand side), and it cannot be faith-based programs, because in these programs enrolment among five year olds is not that much higher than among 3 and 4 year olds. The mysterious "preschool program" that we are looking for is probably primary school….

The last issue for this chapter is the relation between enrolment and (un)employment. The rationale for this analysis is that (un)employment not only predicts income levels and hence families' ability to afford preschool education, but also predicts the need for daycare. Families where both parents work (as well as single parent families where that single parent works) will obviously benefit from programs where children are cared for during a certain number of hours per day (even if learning rather than care is the primary objective of that program). Figure 12 shows the relation between male employment[11] and preschool attendance according to MICS3 (for the 3-5 and the 5 year olds respectively). And figure 13 does the same for female employment. A discussion follows after the figures.

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[11] The source is the DHS survey of 2008, since NBS data from "Social Statistics in Nigeria, 2009" appeared to conflict with ILO data (see page 229 of "Social Statistics in Nigeria, 2009"). Moreover, DHS has the advantage that it distinguishes male from female employment.

Figure 12: Preschool attendance at ages 3-5 and age 5 (2007) by male employment rate (2008)
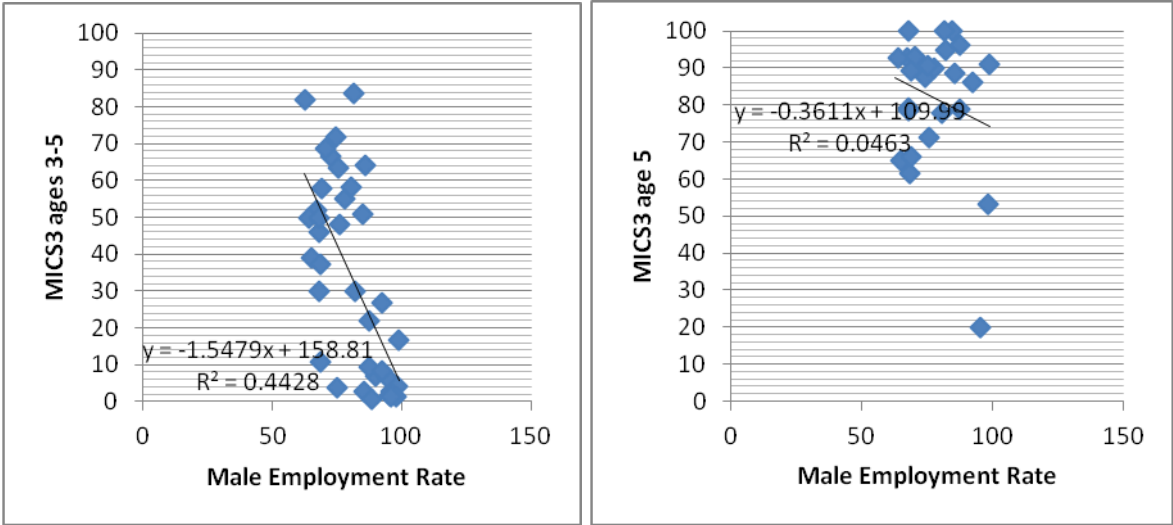
Sources: National Population Commission / ICF Macro, 2009; National Bureau of Statistics/UNICEF (2007)

Figure 13: Preschool attendance ages 3-5 and age 5 (2007) by female employment rate (2008)
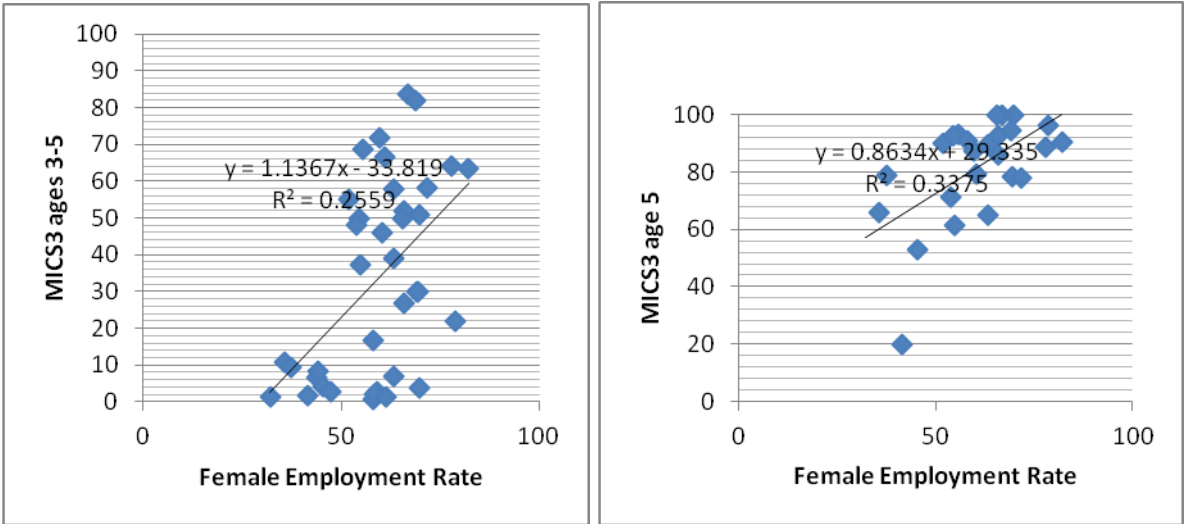
Sources: National Population Commission / ICF Macro, 2009; National Bureau of Statistics/UNICEF (2007)

A surprising observation from figures 12 and 13 is that States with relatively low male employment tend to have the higher preschool enrolment rates, even if the correlation is not strong. Since employment is usually associated with income, one would expect the reverse: the higher the employment level, the higher the preschool enrolment level, as in the case of the women. An explanation for the negative correlation for the men would probably require deeper, multivariate analysis, which is beyond the scope of this report. The cause of the positive correlation for the women may to lie in the traditional role pattern: if women work there is apparently a stronger push to enroll children than if men work.

5. Estimation of unit costs in preschool education

This chapter's objective is to estimate the unit costs in Nigerian preschool education. The unit cost of a program is what it costs to deliver that program during one year, per beneficiary. In our case it is the cost per enrolled child per year. Thus, the unit cost is a critically important parameter: if we know the unit cost, we can multiply it by the number of excluded children, arriving at the amount of money that is needed to universalize preschool education. There are two main approaches to estimating unit costs: deductive and inductive.

The deductive approach would entail, quite simply, to find out what the total annual budget is for preschool education, and to divide that budget by the number of enrolled children. We would not know how much is spent on distinct cost components (teacher salary, materials, toys, maintenance, capital investment), but we would know that at the end of the day, the cost per child per year is an X-amount of Naira. However, *there are no accurate data on public expenditure in education in Nigeria because of a lack of information on the education expenditures of State and local Governments*, as the Roadmap for the Nigerian Education Sector says it (Federal Ministry of Education, 2009:33). By implication, pursuing the deductive approach in this report would be fruitless. But before turning to the second approach – the inductive one – we must nevertheless pay due attention to the information that is available regarding budgets for preschool and the budget process.

While the funding of pre-primary education is first and foremost a matter for States and local Governments, the Federal authorities do spend money to enhance access to basic education, including pre-primary. This is done through a system of matching grants, administered by the Universal Basic Education Committee (UBEC). The available amount of money is the same for each State. E.g. in 2010 it was N 622,781,965.64. This was higher than the approximately N 531 million in 2009 but lower than the N 832 million in 2008. It is not clear why the amount does not depend on the size of the States' population, their poverty rates or other relevant indicators.

Moreover, as the name suggests, states can only receive the matching grants in as far as they match it with funding from their own revenues. This must take place on a 50-50 basis. Furthermore, only 5% of the Matching Grant can be used for pre-primary education, of which

70% (i.e. 3.5% of the total grant) for capital investment (e.g. classrooms); 15% (i.e. 0.75% of the total grant) for materials and textbooks; and the remaining 15% for teacher professional development (Abubakar and Bennel, 2007:xix). The NERDC report contains a very informative table (included in Annex III of this report) showing for 26 of the 37 States the grant received from the UBEC in 2010, and the amount of money that the State itself invested in pre-primary education. The table shows that, as the NERDC comments:

- four States have retrieved exactly the available N 622,781,965.64;
- eleven States plus the FCT retrieved more than that amount, which is possible because States can receive un-accessed grants from previous years;
- nine States were unable to use all of the available amount of money;
- for the remaining 11 States, the NERDC did not receive data.

The first comment that must be made, is that a lack of absorptive capacity is a structural problem for several States. The Digest of Education Statistics (2011:320) shows that:

- most States had not yet accessed their money for 2010;
- fourteen States had accessed none of the funds for 2009;
- eight States had used either nothing or just a part of the money for 2008.

Second, we must keep in mind that all of these funds are mainly for primary and junior secondary education, and that only 5% is available for pre-primary education. This is consistent with the data collected by the NERDC (see Annex Table III) which show that States' own contributions to pre-primary education amount to 5% of the Matching Grants in most cases. The average for all the States that are included in the Annex Table is 4.82%, which is very close to the 5% ceiling. Expressed in absolute amounts of Naira, the total amount of money received by the 27 States for which data are available is about N 2.2 bln[12]. This would rise to about N 3 bln if we extrapolate for the eleven missing States.

Third, even an amount of N 3 bln can only be a few percent of what States invest jointly in pre-primary education on an annual basis[13]. It only concerns a part of the investments in classrooms, materials/textbooks and training, whilst teacher salaries – normally the main part

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[12] To be precise: N 2,218,129,941.36

[13] With about 2 million children in formal public preschool, Nigeria must have nearly 100,000 preschool teachers. The sum of their annual salaries is in the order of magnitude of somewhere between 50 to 100 bln Naira, which dwarfs the N 3 bln of Matching Grants that are spent on classrooms, materials and training.

of education spending – are not in sight when we look through the lens of the Matching Grants.

In an attempt to bring more clarity regarding States' own education spending, Education Public Expenditure Reviews have been conducted in some of the States. However, even in these studies, no light is shed on pre-primary education spending[14]. A likely explanation is that pre-primary spending by States is a form of "hidden costs": pre-primary teachers in formal preschool are usually on the pay-roll of the primary school to which their preschool is attached, whilst similar financial arrangements exist for the classroom, the materials and the inventory. Equally hidden is the expenditure on faith-based preschools, community-based centres and commercial day-care facilities, since even their enrolment data - not to mention their financial data – remain entirely excluded from the official statistics, both at Federal and at State level.

Clearly, to pursue the second approach to estimating unit costs – the inductive approach – is the only option this report has. The essence of this approach is that we start at the most concrete level and examine the annual costs of all the ingredients of pre-primary education: the teacher's salary, the classroom, the inventory (floor-mats, chairs, benches, blackboards), the materials, et cetera. The next step is to divide these costs by the number of children that benefit from these costed items, thus arriving at costs per child per year.

Obviously, this approach is not without its caveats. Programmatic diversity complicates this method significantly: a school-based facility may have a different cost structure than a Madrassa or a community-based centre. Moreover, the quality of pre-primary education can be below acceptable standards, so that we must combine an empirical mode (observing the costs of service provision *as it is*) with a more normative mode (asking what a service *would* cost if it *would* be rendered in compliance with accepted quality standards). This normative dimension can be the answer to programmatic diversity: we can say that *regardless* the type of preschool (formal, religious, community-based, commercial), there must be one teacher for no more than 20 children. And *regardless* the type of preschool, that teacher must receive a fair salary, high enough to prevent high levels of teacher attrition. Et cetera.

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[14] The author of this report has found and examined the expenditure reviews of Kaduna, Kano and Kwara. It appeared that pre-primary education is hardly mentioned in these reports.

To support an inductive approach to unit cost estimation, a small scale survey was conducted for this report in which heads of pre-primary education institutions were asked about several cost components. Thirteen managers responded eventually, so that the results of the survey can be used in an illustrative manner but not as a basis for generalization.

We start the inductive approach by looking at the salary of the teacher. In this respect, the small scale survey had rather different outcomes. The monthly salary ranged from about N 35,000 per month (possibly for a class assistant) to about N 81,000. Given the small size of the sample this cannot be a basis for further calculations. An alternative approach is provided by Van Ravens and Aggio (2008). First, they developed an argumentation for remunerating preschool teachers at par with primary school teachers (2008:21). Second, they used findings from Mingat (UNESCO, 2005:165) for a systematic approach to estimating teacher salaries for a given country. Mingat expressed teacher salaries (in primary education) as a function of per capita GDP (i.e. the average income of a country divided by the number of inhabitants) and found that the salaries of teachers English speaking African countries is generally 4.2 times per capita GDP[15].

According to World Bank data, per capita GNP[16] in Nigeria (Atlas method) stood at US$1180 in 2010 (http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf). Thus, the average annual salary of a teacher would be 4.2 * US$1180 = US$ 4956. Expressed in Naira, this comes down to N 800,650 per year, or 66,721 per month. These outcomes take us very close to the N 780,501 per year (or N 65,041.75 per month) that a diploma certificate holder earns at Grade Level 07 Step 15, according to a recent circular of the National Salaries, Incomes and Wages Commission (http://www.nigeriadailynews.com/latest-additions/26210-new-wage-released-school-leaver-n20-249-director-n348-633.html). Moreover, the amount of N 65,041.75 per month also falls within the range found in the small scale survey. This similarity between the three approaches (the approach by Van Ravens and Aggio; the circular of the National Commission; the small scale survey) suggests that we are on the right track. Yet we need to make an adjustment. If we estimate the costs of expanding the preschool system, we must take into account that most of the new teachers have relatively few years of

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[15] In Francophone Africa, the factor is somewhat higher: 4.8%. The general tendency is: the richer the country, the lower this factor. In Asia the factor is in the order of 3; in Latin America in the order of 2.5; and in OECD countries about 1.5. This tendency is explained by the fact that families in poorer countries are larger, whilst per capita GDP is lower.

[16] A good source for per capita GDP could not be found, hence we use per capita GNP.

service. Hence they are likely to sit on lower levels than Step 15, for some years to come. Mingat, too, looked at the salary of the *average* primary school teacher rather than at the newcomers. Thus, we will assume an annual teacher salary of N 750,000, rather than N 780,000 (as per circular) or N 800,000 (as per Van Ravens and Aggio).

The next step is to divide this salary by the number of children that one teacher can attend. To determine this number, we first examine the service hours of the preschool institutions in the small scale survey, and then the group size.

- All of the thirteen institutions were open during 5 days per week, and all but one were receiving children from the early morning (07:00, 07:30 or 08:00) until around noon (one institution was open all day).

- This means that a fulltime teacher can serve two groups of children each day: for example the younger ones in the morning and the older ones (up to age 5) in the afternoon[17]. The total number of hours that children attend per week would thus be 4 * 5 = 20. This is the ceiling. Expanding a program beyond that number of hours does not contribute further to child development (van Ravens, 2010a)[18].

- Based on considerations regarding the quality of preschool education, we assume a group size of not more than 15 for the 3 year olds[19]; of 20 for the four year olds; and of 25 for the five year olds.

- Since eventually the number of enrolled children will be the same for each of these three age groups, we can simply assume an average group size of 20 for the entire age group of 3 to 5.

- Thus, the average teacher serves 2 groups of 20 children on a daily basis, which results in a teacher to pupil ratio of 1:40.

- As a result, the salary cost per child per year is N 750,000 / 40 = N 18,750.

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[17] Another modality could be that one teachers attends a pre-primary group in the morning and a primary class in the afternoon. This makes no difference in terms of costs, though it is better to have specialized teachers in both primary and pre-primary classes.

[18] The only advantage of a full-day program over a half-day program, is economic. A full-day program enables parents to work all of the day. This, however, is a different issue. It is the child development function of preschool – not the economic function - that justifies public investment. For a more elaborate discussion of this issue, see Van Ravens, 2010b.

[19] An alternative model for the three year olds is that the group is somewhat larger but is attended by not just one teacher, but by one teacher plus a class-assistant. However, the latter's salary is usually lower, e.g. N 363,794 per year (or 30,316 per month) at Grade Level 04 Step 15 as per latest circular. So for the cost estimation, this model makes little difference with the model of one teacher for 15 children.

The double shift system has also favourable outcomes on the non-salary costs. Classrooms, the inventory and the materials will also be used for two groups per day. This, too, implies an important gain in terms of efficiency compared to the current situation in which many pre-primary classrooms in Nigeria are empty in the afternoon.

For the non-salary costs we can again combine the empirical angle provided by the small scale survey with the more normative approach by Van Ravens and Aggio. The 13 preschools in the survey sample showed variation with regards to the money they spend to cover recurrent costs such as those for textbooks; materials; inventory; refresher training. Yet it was possible to produce a rough estimate for these cost items. Taking into account the varying life cycles for these items (2 years for textbooks and materials; 5-10 years for inventory; 1 year for refresher training) as well as the number of 40 children for one classroom, we arrive at a figure of about N 7,500 per child per year for all recurrent non-salary costs jointly. If we would accept this estimation, the total unit cost would be N 18,750 + N 7,500 = N 26,250. The salary component would equal 71.5% of all costs, and the non-salary component would equal 28.5%.

By contrast, Van Ravens and Aggio (2008:23-24) arrived at 60% for the salary component versus 40% for the non-salary component. The difference is explained by their strong emphasis on (i) the need for a high intensity and a high frequency of preschool-specific refresher training in a rapidly expanding preschool system, and (ii) on the importance of a good supply of nutritional supplements; snacks/meals; medication; and age-appropriate toys and materials. As a compromise between the empirical approach through the survey and the more normative approach by Van Ravens and Aggio, this report proposes a total unit cost of N 30,000 per child per year, consisting of a salary component of N 18,759 (= 62.5%) and a non-salary component of N 11,250 (= 37.5%).

The last issue for this chapter concerns *capital investment*: the costs of constructing or refurbishing a classroom; the costs of purchasing the land if necessary; the costs of equipping and fencing a playground. The problem with these capital investment costs is that they vary

tremendously, both in Nigeria (as the small scale survey reveals) and elsewhere[20]. For example: refurbishing and existing space is much cheaper than building a new one, but in some cases a space is available and in others cases not. Land is in some cases granted for free by a local community authority, but in other cases it has to be bought; usually the price is very high indeed. Finally, playgrounds are very costly, but are not always there. A very, very rough indication of the order of magnitude of these costs is N 2.5 million. But it has to be kept in mind that this amount would have to be divided by a large number of children because (i) several age groups benefit from the space, the land and the playground, and (ii) the life cycle of these investments is very long[21]. In many developing and transition countries, capital investment it is often financed by government authorities; large private enterprises who act out of Corporate Social Responsibility; national and international NGOs; Development Banks; and other Development Partners through Official Development Assistance (ODA). Given the special nature of capital investment, this report will further leave it out of the analysis and concentrate on the recurrent costs of preschool education.

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[20] This is the experience of the author in many developing and transition countries, and also of Carter et all (2008) in South Africa.

[21] For a building it is not uncommon to assume a life cycle of 50 years. The land lasts forever and is likely to maintain or even gain value.

6. Meet The Standards

Having established the unit cost of preschool education in Nigeria at N 30,000, it should now be easy to calculate the overall costs of universalizing that form of education. All it would take is to multiply the N 30,000 with the number of excluded children of 3, 4 and 5 years old.

However, that number is not known, as this report has found. Children who are not in the formal preschool system – and hence not in the official statistics – are not necessarily excluded. A large part of them are in faith-based preschools, community-based centers, commercial daycare centers, or in primary education. It would cost money to upgrade these programs so that they meet the national quality standards, but the extra costs would be less than N 30,000, since in all of these programs there is already a teacher, a space, and at least some materials and inventory.

The key recommendation of this report is therefore that universal access to preschool education can be strived for by a combination of five measures. We could baptize this strategy by calling it the Meet The Standards (MTS) strategy, because the essence is that we can make a big step towards universal enrolment against relatively low costs by bringing the non-formal provision "up to standards". This reduces the number of "really excluded" children, and hence the financial burden. The five measures are of the MTS strategy are:

- Work with the faith-based programs to make these more holistic. Aderinoye and Oduolowu (2008:62) found that 1702 faith-based preschools (out of a total of 2361) are willing to integrate their curriculum within the formal national curriculum. Regular refresher training for the Mallams can bring them up to the level of the National Certificate of Education. Joint investment (by State and faith-based organizations) in the space, materials and inventory can bring the learning environment up to national standards.
- Pursue a similar approach for the community-based centers, so that these too come under the aegis of the national preschool system[22].

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[22] The experience of Kyrgyzstan is interesting in this regard. In this relatively poor country in Asia, different types of community-based centers were supported by the World Bank, the Asian Development Bank, UNICEF and the Aga Khan Foundation. After some years of experimentation and development, these different providers are now brought into the national system in a gradual process. An important step was putting all teaching staff of the centers on the State payroll, on the condition that they met the standards (van Ravens, 2010a).

- Register the commercial daycare centers and home-based facilities; oblige them to formally report the number of children they enroll; oblige them to comply with basic standards of hygiene and safety; and welcome them to go a step further and have their teachers trained and comply with the national curriculum.

- Ensure a timely and hence age appropriate transition entry from preschool to primary school. Every child should make that step around the age of 6. Not sooner, not later.

- Map the "real" exclusion: find out how many children are entirely excluded from any program whatsoever. Address this by new investments in preschool education.

Only for the latter group – the "really excluded" children - will the unit cost be N 30,000. For all others, the costs of bringing them into the national framework will be more limited. Exactly how much it will cost to bring faith-based preschools, community-based centers and commercial daycare facilities up to the national standards, cannot be established at forehand, and certainly not in this report. It is a question that must be answered in the course of the MTS process.

That process – based on the five measures mentioned above – can only take place at State level, given the division of roles and responsibilities in Nigerian (preschool) education. In this decentralized governance model, the Federal level can provide guidance and indirect financial support. The system of Matching Grants, however, does not seem powerful enough for the preschool sector. More generous support seems needed, prioritizing the States that pair a high poverty rate to a low enrolment rate (see figure 11 and Annex Table II). The experience of Macedonia can be helpful for developing a funding formula (van Ravens, 2010b) that best suits the needs and challenges of the different states.

It should be added that the purpose of the five strategies is not to reduce programmatic diversity. In any education system it is essential that local communities or faith-groups have the space to shape programs according to their own needs and beliefs. Programmatic diversity is a good thing. Rural children will have different needs than urban children, and nomadic groups, too, have their own specific circumstances to cope with. The art of policy making is to ensure that programmatic diversity is maintained while at the same time some core quality standards are met. These include: complying with the national core curriculum; bringing teachers up to the level of the National Certificate of Education; and ensuring a safe environment that is conducive to learning. Meeting these standards would be rewarded with

registration of the program in the national framework, with the right to receive financial support. On its turn, registration will enhance transparency: more of the existing programs will show up in the national statistics, and reports such as this will become more powerful.

While it is obvious that this report cannot put a straightforward price-tag on the unversalization of preschool education in Nigeria, it is possible to at least visualize the enrolment situation as it *could* exist in a Nigerian State. Figure 14 is part of an attempt to do this. It shows per age group (3, 4 or 5 year olds) the enrolment in the 5 programs that this report has identified as being open to children from 3 to 5. From bottom to top: formal preschool (blue); faith-based preschool (orange); community-based centers (red); commercial daycare (green); and primary school (yellow). At the top of each column are the "really excluded" children (light blue). It should be noted with utmost emphasis, that this profile is *fictive*. In as far as possible, it is based on the data that this report has gathered, but enrolment in the community-based centers and in commercial daycare is fictive, albeit that the overall enrolment level (in the five programs together) is broadly consistent with what the household surveys tell us.

Figure 14: <u>Fictive</u> preschool enrolment profile for the average Nigerian State
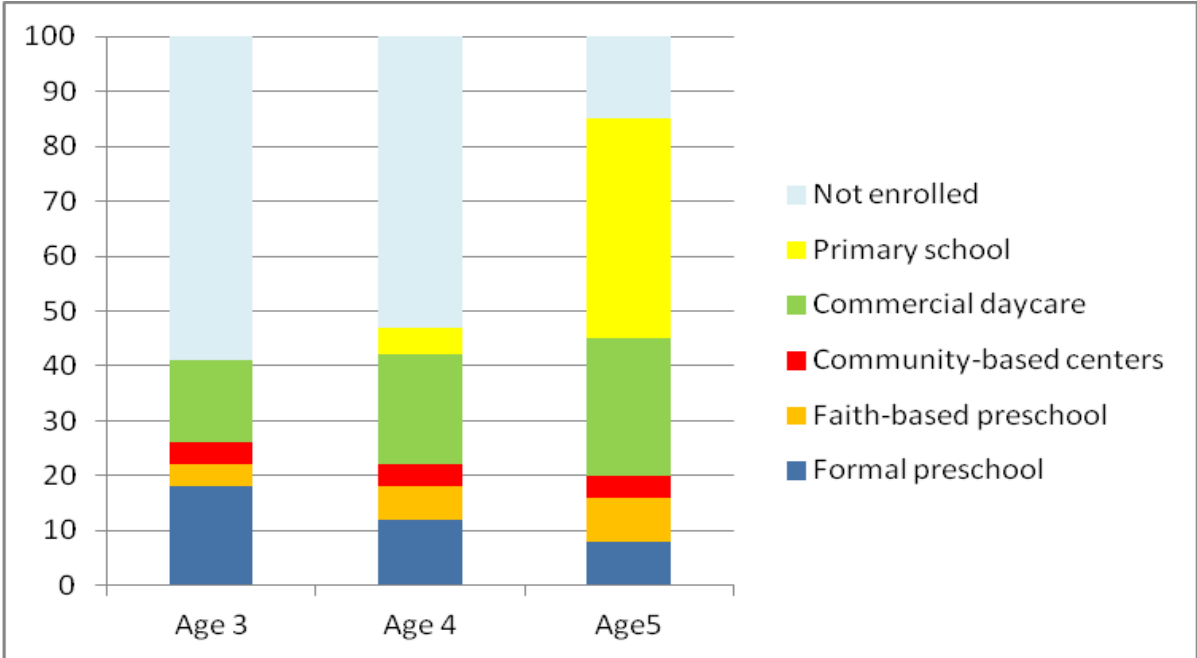
Based on the fictive profile in figure 14, we could undertake an attempt to estimate the cost of bringing all programs within the national framework and enrolling all the "really excluded" children. This, however, requires some further bold assumptions:

- For the faith-based preschools and the community based centres, we assume that it costs N 15,000 per child per year to meet and maintain the national standards.

- For commercial day-care we assume that these costs are lower, and will be borne by the centres themselves. We argue that they can finance this from the fees they receive and the profits they make; the money should not come from the public purse.

- Ending the practice of premature transition to primary school will also cost money. If all the children who now go to primary school at ages 4 and 5 would attend preschool instead, their unit cost will be somewhat higher than it is in primary school because (i) groups are smaller in preschool than in primary school, (ii) more specific materials are needed, and (iii) teachers need preschool-specific training. We assume that the extra costs will be N 10,000 per child per year on the long run (initially perhaps more than that).

- For the "really excluded" children, we apply the unit cost of N 30,000 that we found in the previous chapter.

On these cost assumptions, and on the enrolment assumptions applied to figure 15, the total recurrent costs would be N 15.7 million for every 1,000 children in the age group of 3-5.

The average Nigerian State has about 350.000 children in this age bracket. States like Kebbi, Kogi, Rivers and Zamfara are close to this average. Extrapolating the N 15.7 million to the preschool population of such as State would yield a figure in the order of N 5.5 bln. Extrapolation to the entire nation of Nigeria would result in a structural resource requirement of N 190 bln. Notwithstanding the utmost caution with which this estimation should be treated, it is clear that it sits well below the outcomes of an exercise by Chang (2007:8) who projected the costs of universalizing preschool education without taking into account the existing non-formal provision and the premature transition to primary school.

Another good reference point for the resource requirement of N 190 bln would be the overall education budget of Nigeria, i.e. the total amount of public money that the Federal Government, the States and the local government authorities spend on education. However, this amount could not be established, once again due to a lack of transparency. An alternative approach is to take the overall GDP of Nigeria (US$ 193,668,738,107 in 2010[23]) and multiply it by total education spending as a percentage of GDP. However, neither the World Bank

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[23] World Bank website, consulted on 20 December 2011

website nor the UNESCO Institute for Statistics could report this indicator for Nigeria. An older source reports that Nigeria's education spending as a percentage of GDP stood at 5.84% between 1999 and 2003 (Adebiyi and Oladele, year not known, page 4). On the assumption that the figure has declined since then (Federal Ministry of Education, 2009:33), it could now stand at 5%, as Chang also assumes (2007:3). This would imply that Nigeria's education budget would currently have an order of magnitude of US$ 10 bln or N 1610 bln.

The resource requirement of N 190 bln would represent about 12% of an overall education budget of N 1610 bln. This is a very high percentage, comparatively. In most countries, the extra resources needed to universalize ECCE represent a lower share of the education budget. The reasons for the high outcome for Nigeria are (i) the low levels of preschool enrolment from which the country starts (which makes that the ECCE resource requirement is relatively high in absolute amounts), and (ii) the low NERs in primary and secondary education (which makes that the overall education budget is relatively small).

Two positive factors must be mentioned:
- There are un-accessed intervention funds and there is low budget utilization more in general (Federal Ministry of Education, 2009:33-34). This means that there is actually money available for the preschool sector, if only it can produce sound plans.
- Economic growth in Nigeria is significant. The estimation for the real growth rate of GDP for 2010 is 8.4%[24], and if Nigeria can only maintain public education spending as a share of GDP at the current level, it would mean that the education budget would increase by about N 135 bln annually in the coming years.

This means that 2 years of budget growth would be enough to cover the N 190 bln. However, two considerations should temper this optimism:
- The preschool sector will have to compete for the new resources with primary education. As long as universal primary education is not achieved, a lot of money is likely to go to that sector.
- It is not only the economy that will grow. The number of children of 3-5 will also grow, so the resource requirement of N 190 bln will inflate in the coming years.

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[24] http://www.indexmundi.com/nigeria/gdp_real_growth_rate.html

But to return to a positive mood, it can be noted that implementation of the MTS strategy will take its time. The preschool sector nationwide would not even be able to absorb an additional budget of N 135 bln annually. Seen over a period of 5 to 10 years, things look fairly bright: the education budget is likely to increase substantially over such a period of time, while the preschool sector will have time to develop sufficient capacity to actually absorb new funding. Moreover, there are two measures that can mitigate the resource requirement:

- Charge fees to those who can afford it. Fees should never be prohibitive children's access to education, but means-tested fees are an option.

- Implement gradually. This can be done in several ways:
  - By region: start with 3 States with different socio-economic profiles. Test the MTS strategy, improve it, and then take it to other States.
  - By age: start with the 4 and 5 year olds, and address the 3 year olds at a later stage. This reduces the resource requirement from N 190 bln to N 110 bln.
  - By program: invest limited amounts of money to ensure that existing programs meet some minimum quality standards before spending larger amounts of money on creating new programs from scratch.

The concluding remark of this chapter takes us somewhat beyond the Terms of Reference of this report, but is too important to omit. The option of focusing on the 4 and 5 year olds and of enrolling the 3 year olds at a later stage is slightly in conflict with internationally accepted insights (Engle et al, 2007). Children should really start playing in groups from the age of three onwards. However, in the context of tight fiscal restraints, hard choices must be made, and from a social justice perspective it seems better to enrol all the children of age 4 and 5, than only some of the children of age 3, 4 and 5. Moreover, the negative impact can be mitigated by *parental education*. Enhancing parental skills through home visiting, group sessions or a combination of these two modalities can make a big difference for children (Engle et al, 2008; Evans, 2006; Consultative Group on Early Childhood Care and Development, 2008). Moreover, the unit costs of enrolling parents are significantly lower than those of enrolling children (van Ravens and Aggio, 2008). Finally, parental education has the critical advantage that it can cover the important first three years of children's lives, and even the period of pregnancy. Therefore, the last recommendation of this report is to integrate the option of parental education in the MTS-strategy.

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ANNEX TABLE I: enrolment and attendance rates per State

This table contains the enrolment and attendance rates that served as input for figures 6 and 7 of this report. Sources, notes and comments can be found in the main text.

	All ages			Age 5		
	NERDC	DIGEST	MICS3	NERDC	DIGEST	MICS3
Abia	19.5	28.9	71.8	19.4	26.4	85.7
Adamawa	3.7	6.7	3.8	3.5	2.2	
Akwa Ibom	36.1	31.1	38.9	38.8	7.6	65.0
Anambra	41.9	43.1	66.4	41.4	42.5	
Bauchi	10.4	6.5	2.6	11.0	2.3	
Bayelsa		3.9	37.1		3.2	61.4
Benue	2.7	2.2	21.9	2.0	0.9	96.3
Borno		4.0	6.8		1.6	
Cross River		19.6	50.7		13.2	100.0
Delta		15.2	45.9		10.2	79.3
Ebonyi	26.7	10.5	30.1	40.7	7.1	94.7
Edo	19.9	18.5	51.9	16.0	16.0	92.6
Ekiti		12.9	68.8		0.8	93.1
Enugu		29.9	55.1	80.5	25.4	90.0
Gombe	4.2	4.9	6.5	4.4	1.8	
Imo		32.4	50.0		27.8	92.9
Jigawa		5.8	4.3		1.9	53.1
Kaduna		14.2	10.8		4.6	66.0
Kano		12.5	2.8	32.3	4.5	
Katsina		7.4	1.7		2.5	20.0
Kebbi	8.3	3.6	0.6	18.2	1.5	
Kogi		10.6	29.8		2.7	78.4
Kwara		10.8	58.2		4.0	77.8
Lagos	9.3	10.5	83.8	9.8	3.8	100.0
Nasarawa	6.6	7.7	26.8	2.6	4.2	86.1
Niger	11.5	11.0	16.6	7.3	3.5	90.9
Ogun		22.3	64.0		10.2	88.6
Ondo	26.1	23.1	57.8	3.2	16.0	89.4
Osun		22.3	81.8		42.5	
Oyo	37.0	27.2	63.6	46.6	24.7	90.6
Plateau		3.4	9.5		1.5	78.8
Rivers	25.7	10.7	50.0	20.0	7.0	100.0
Sokoto		6.4	2.0		2.4	
Taraba	3.2	3.2	1.5	1.1	1.1	
Yobe	3.7	4.5	1.5	2.3	2.7	
Zamfara	4.9	4.2	8.2	7.4	3.2	
FCT	10.4	9.6	48.2	5.7	4.6	71.4
Nigeria		12.8	32.1		8.1	82.9

ANNEX TABLE II: enrolment/attendance and poverty, by State

This table contains the enrolment and attendance rates that served as input for figures 10 and 11 of this report. Sources, notes and comments can be found in the main text.

	Poverty	DIGEST	MICS3	DIGEST	MICS3
	2004	age 3-5	36-59 mn	age 5	PS exp.
Abia	0.49	28.9	71.8	26.4	87.5
Adamawa	0.78	6.7	3.8	2.2	
Akwa Ibom	0.51	31.1	38.9	7.6	65
Anambra	0.42	43.1	66.4	42.5	
Bauchi	0.28	6.5	2.6	2.3	
Bayelsa	0.62	3.9	37.1	3.2	61.4
Benue	0.57	2.2	21.9	0.9	96.3
Borno	0.32	4.0	6.8	1.6	
Cross River	0.55	19.6	50.7	13.2	100
Delta	0.47	15.2	45.9	10.2	79.3
Ebonyi	0.90	10.5	30.1	7.1	94.7
Edo	0.55	18.5	51.9	16.0	92.6
Ekiti	0.35	12.9	68.8	0.8	93.1
Enugu	0.65	29.9	55.1	25.4	90
Gombe	0.60	4.9	6.5	1.8	
Imo	0.61	32.4	50	27.8	92.9
Jigawa	0.87	5.8	4.3	1.9	53.1
Kaduna	0.52	14.2	10.8	4.6	66
Kano	0.52	12.5	2.8	4.5	
Katsina	0.66	7.4	1.7	2.5	20
Kebbi	0.84	3.6	0.6	1.5	
Kogi	0.57	10.6	29.8	2.7	78.4
Kwara	0.39	10.8	58.2	4.0	77.8
Lagos	0.15	10.5	83.8	3.8	100
Nasarawa	0.61	7.7	26.8	4.2	86.1
Niger	0.46	11.0	16.6	3.5	90.9
Ogun	0.32	22.3	64	10.2	88.6
Ondo	0.23	23.1	57.8	16.0	89.4
Osun	0.17	22.3	81.8	42.5	
Oyo	0.21	27.2	63.6	24.7	90.6
Plateau	0.48	3.4	9.5	1.5	78.8
Rivers	0.25	10.7	50	7.0	100
Sokoto	0.67	6.4	2	2.4	
Taraba	0.58	3.2	1.5	1.1	
Yobe	0.58	4.5	1.5	2.7	
Zamfara	0.58	4.2	8.2	3.2	
FCT	0.60	9.6	48.2	4.6	71.4
Total		12.8	32.1	8.1	

ANNEX TABLE III: Use of Matching Grants by the States

This table has been copied from the NERDC report (NERDC, table 5)

S/NO.	GEO-POLITICAL ZONE	STATE	BUDGET FROM UBEC (N)	BUDGET FOR PPE (N)	PPE %
1	SOUTH WEST	EKITI STATE	771,000,000.00	372,000,000.00	48.25
2		LAGOS STATE	332,631,623.00	-	-
3		OYO STATE	531,121,621.00	26,556,081.00	5.00
4		OGUN STATE	531,121,621.00	26,556,081.00	5.00
5		OSUN STATE	1,076,839,493.00	104,099,837.00	9.67
6		ONDO STATE	-	-	-
7	SOUTH EAST	ABIS STATE	1,664,864,864.00	86,243,243.00	5.18
8		ANAMBRA STATE	531,131,620.00	86,243,243.00	16.24
9		EBONYI STATE	632,364,864.00	531,131,620.00	83.99
10		ENUGU STATE	1,660,000,000.00	83,240,000.00	5.01
11		IMO STATE	2,000,000,000.00	100,000,000.00	5.00
12	SOUTH SOUTH	CROSS RIVER STATE	622,781,965.00	31,139,098.00	5.00
13		AKWA IBOM STATE	1,264,729,728.00	63,236,486.00	5.00
14		RIVERS STATE	24,101,000,101.00	12,001,200.00	0.05
15		EDO STATE	1,000,000,000.00	50,000,000.00	5.00
16		DELTA STATE	202,404,138.00	202,404,138.00	100.00
17		BAYELSA	622,781,965.00	31,139,098.00	5.00
18	NORTH CENTRAL	FCT	867,567,568.00	43,378,378.00	5.00
19		KWARA STATE	622,781,965.00	5,311,216.00	0.85
20		KOGI STATE	444,780,405.00	22,239,020.00	5.00
21		BENUE STATE	-	-	-
22		PLATEAU STATE	-	-	-
23		NIGER STATE	622,718,965.00	-	-
24		NASARAWA STATE	1,062,243,243.24	54,818,512.80	5.16
25	NORTH EAST	GOMBE STATE	293,611,982.00	13,700,000.00	4.67
26		ADAMAWA STATE	622,781,965.00	-	-
27		TARABA STATE	610,326,326.00	30,520,306.00	5.00
28		YOBE STATE	622,781,965.00	62,278,196.00	10.00
29		BAUCHI STATE	-	-	-
30		BORNO STATE	-	-	-
31	NORT WEST	KANO STATE	-	-	-
32		KADUNA STATE	-	-	-
33		KATSINA STATE	822,781,966.00	31,139,098.00	3.78
34		ZAMFARA STATE	531,121,621.60	26,556,081.00	5.00
35		KEBBI STATE	59,960,406.41	59,920,812.00	99.93
36		JIGAWA STATE	-	-	-
37		SOKOTO STATE	1,245,563,931.28	62,278,196.56	5.00
	TOTAL		45,973,795,912.53	2,218,129,941.36	4.82

- Represents Data either not available or No response from respondent.

Note by the NERDC team: this table represents the actual data from States. However UBEC source insists that each State was advanced N622,781,965.