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Governance and Finance Analysis of the Basic Education Sector in Nigeria

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Education

Acronyms and Abbreviations

ACLED	Armed Conflict Location & Event Data Project
ANCOPSS	National Executive Council of All Nigeria Conference of Principals of Secondary Schools
ASER	Annual Status of Education Report
BECE	Basic Education Certificate Examination
BIA	Benefit Incidence Analysis
CBN	Central Bank of Nigeria
CLD	Centre for Law and Development
CSO	Civil Society Organizations
DEA	Data Envelopment Analysis
DFID	Department for International Development
DHS	Demographic and Health Survey
ECA	Excess Crude Account
ECD	Early Childhood Development
EFCC	Economic and Financial Crimes Commission
ESSPIN	Education Sector Support Program in Nigeria
ESW	Economic and Sector Work
FAAC	Federal Account Allocation Committee
FBO	Faith Based Organizations
FCT	Federal Capital Territory
FMOE	Federal Ministry of Education
GCE	General Certificate Examination
GDP	Gross Domestic Product
GER	Gross Enrollment Rate
GHS	General Household Surveys
GPE	Global Partnership for Education
GPI	Gender Parity Index
HH	Household
GRM	Human Resource Management
ICPC	Independent Corrupt Practices and Other Related Offences Commission
IGR	Internally Generated Revenue
IMF	International Monetary Fund
IQTE	Integrated Qur'anic Teaching and Education
JAMB	Joint Admissions and Matriculation Board
JSS	Junior Secondary School
JSSC	Junior Secondary School Certificate
LGA	Local Government Authority
LGEA	Local Government Education Authority
LSMS	Living Standard Measurement Study
M&E	Monitoring and Evaluation

MDG	Millennium Development Goal
NBS	National Bureau of Statistics
NDHS	National Demographic and Health Survey
NECO	National Examination Council
NEMIS	National Education Management Information System
NER	Net Enrollment Rate
NERDC	Nigerian Educational Research and Development Council
NPE	National Policy on Education
NPEC	National Primary Education Commission
OAGF	Office of the Accountant-General of the Federation
OECD	Organization for Economic Co-operation and Development
PCR	Primary Completion Rate
PPP	Public-Private Partnership
PTA	Parents/Teachers Associations
RMAFC	Revenue Mobilization Allocation and Fiscal Commission
SBMC	School-Based Management Committee
SDI	Service Delivery Indicators
SEMIS	State Education Management and Information Systems
SMC	School Management Committees
SMOE	State Ministry of Education
SSA	Sub-Saharan Africa
SSC	Senior School Certificate
SSS	Senior Secondary School
SSSMB	Senior Secondary State Management Board
STR	Student Teacher Ratio
SUBEB	State Universal Basic Education Board
SWF	Sovereign Wealth Fund
UBE	Universal Basic Education
UBEC	Universal Basic Education Commission
UKaid	UK Aid
UME	Universities Matriculation Examination
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UPE	Universal Primary Education
USAID	U.S. Agency for International Development
USD	U.S. dollars
WAEC	West African Examination Council

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Executive summary

1. Nigeria has established a clear long-term vision for sustained social and economic progress and has laid out the blueprint for transformation in its Vision 20:2020 development plan. The objective of this vision is clearly defined: Vision 20:2020 seeks to propel Nigeria into the top 20 largest economies in the world by 2020[1], guaranteeing a high standard of living and quality of life to its people. Five years removed from its target, Nigeria has made significant inroads towards achieving its goal. Over the last decade, the country has achieved key milestones on its path to economic development. It has experienced sustained economic growth, with an average Gross Domestic Product (GDP) growth rate of 6 percent over the last decade, outperforming the SSA average growth rate over the same period, and has done so by focusing on diversifying its economy. Since the 2014 rebasing exercise, it is also Africa's largest economy, surpassing South Africa, with a nominal GDP of USD 521.8 billion in 2013.

2. Nigeria's path to economic development demonstrates strong potential for further growth but the country faces important social and economic challenges, including the impact of the protracted slump in oil prices on fiscal revenues, and ongoing instability in the northern regions due to occasional flares of violence and ramped up extremist activity. In light of the challenges ahead, addressing the current gaps and lacunae in the basic education sector is a key step in harnessing the country's full potential, ensuring prosperity for all and meeting its Vision 20:2020 goals.

3. Recognizing that such an ambitious development plan cannot materialize without adequate investment in human development, the government has made basic education one of the main pillars underpinning its long-term development plan. As such Nigeria has implemented several key reforms in the education sector- most notably the introduction of universal basic education (UBE Act 2004), which requires that state and local Governments provide free, compulsory and universal basic education, covering grades 1-9, for every school-age Nigerian child. In order to achieve their national goals and also fulfill their commitment to the Education for All (EFA) and Millennium Development Goals (MDGs) in education, the Universal Basic Education Commission (UBEC) was created to specifically carry out the mandate of UBE in Nigeria. To that end, 2 percent of the Consolidated Revenue Fund has been dedicated to funding the UBE program under the direction of UBEC. So far the program has successfully implemented key reforms such as automatic teachers' salary payment, which has been very effective in reducing payment delays and potential leakages. In addition, it has championed the introduction of School Based Management Committees (SBMCs), which play a key role in bringing the community into the effective management of the education sector.

4. Despite the country's clear commitment and significant progress in some areas, Nigeria's basic education sector still faces many hurdles including stagnating trends in enrollment rates, low learning outcomes, and persistent inequalities in access. For instance, the out-of-school rate for children aged 6-14 increased from 24 to 30 percent between 2010 and 2013, with a high incidence rate in the northern states (95% in 2013), mainly affecting children from the poorest quintiles and rural areas. In addition, there still are significant gaps in quality indicators. For example, the primary and junior secondary

[1] Several projections expect Nigeria to reach top 20 leading economies by 2030

completion rates, and grade 6 exam pass rates[2] show large variations across zones while the literacy rates in grades 4 and 6 are generally low across states. As stated above, the fragile economic outlook of the country raises particular concerns for future funding and investment prospects in the education sector. In order to address these concerns, it is vital that Nigeria address the gaps in the provision of its basic education as a national priority—with significant reforms to its governance and finance structure. In particular, this Economic and Sector Work (ESW) examines the two main basic education challenges facing Nigeria today: (i) issues of equity in access, and (ii) quality of education—by investigating bottlenecks linked to governance and financing of the basic education sector.

5. A summary of the main findings and policy recommendations stemming from the analysis carried out in this report is provided below, and is grouped into the two broad areas of equity and quality of education. Given the entwined and complex nature of the bottlenecks facing the education sector in Nigeria, the findings and recommendations each reflect and encompass governance and finance aspects. For example, underfunding of the basic education sector deprives the federal and state institutions and frontline service providers (schools and teachers) of the resources they need to deliver educational services, and governance challenges hamper the effectiveness of the public expenditure that is mobilized. Basic education in Nigeria calls for both substantially higher resource mobilization and more effective use of mobilized resources. Without increased resource mobilization, governance reforms would only have limited impact on access, equity and quality of education. But without resolving governance challenges, increased resource mobilization may not help improve basic education outcomes either.

Key findings and policy recommendations

Equity in access to basic education

1. Strengthen the legal and institutional environment in education policy implementation.

Since the 2004 UBE reforms, there are three main institutions engaged in the delivery of basic education in Nigeria: (i) State Universal Basic Education Board (SUBEB) - a parastatal entity accountable to the State Ministry of Education and subject to the decisions of the state government; (ii) Universal Basic Education Commission (UBEC) – UBEC, which is financed through a direct Federal government block grant of 2 percent of the Consolidated Revenue Fund and therefore accountable to the Federal Government, is mandated to pursue the universal basic education agenda while operating within the constitutional bounds of States. UBEC executes UBE policies and programs through coordination with SUBEBs and Local Government Education Authority (LGEAs) within each state and its mandate extends solely to public basic education levels (grades 1-9); and (iii) Federal Ministry of Education (FMOE) which is tasked with policy formulation, and setting of guidelines for quality assurance across all levels of education including basic education. The challenge stems in large part from the disconnect between the responsibilities legally conferred to the agencies and the institutional authority to enforce these responsibilities, as well as weak accountability channels between them, undermining access and equity to basic education services. As such the current legal and institutional

[2] The exam results are limited since this exam is only for those seeking entrance into unity colleges.

framework tends to weaken the policy implementation environment, undermining sector effectiveness. Below are a few examples of limitations in the legal framework that result from the implementation of the universal basic education (UBE) law.

a. Free and compulsory UBE services. According to the UBE legal framework, anyone collecting fees from students at the basic education level, or parents who do not send children to school, are liable to be fined, but UBEC tends to have limited legal grounds to enforce this policy. In addition, since UBEC does not have funding to adequately compensate schools for the loss in revenue from the implementation of the fee-free policy, schools may turn to alternative forms of fee collection, e.g. through Parent Teacher Association (PTA) contributions, effectively undermining the purpose of the law.
b. Disarticulation of junior secondary schools (JSS) from senior secondary schools (SSS) schools. As part of the UBE initiative, the 2004 UBE Act called for the disarticulation of JSS from SSS to allow greater focus and better management of the sector, and therefore ensure increased access to basic education. However, UBEC faced important challenges in providing sufficient human, physical and financial resources to effectively carry out the disarticulation process. This led to an uneven implementation across states. As such, in 2010, it was observed that many states were yet to fully comply with the disarticulation directive. Only a few states had fully disarticulated, many states had partially disarticulated and a few states had even started rearticulating. The disarticulation process has introduced a seemingly unsurmountable challenge to the management of schools by scattering already scarce human and infrastructure resources and assets. This has also created a non-uniform school management system since UBEC tends to be limited in its legal ability to engage in SSS management although UBEC may be funding the articulated schools where both JSS and SSS fall under the same management.
c. Equal distribution of the UBEC intervention fund and alteration of UBE fund rules without clear supporting evidence. The current legal framework surrounding UBEC operations at state level also renders it subject to rules that are not aligned with its objectives. For example, the vast majority of the UBEC intervention fund (matching grants) are equally distributed to all states, which clearly undermines UBEC's ability to specifically address equity and access issues in lagging states. Similarly, the matching grant requirement of 70 percent was altered to an arbitrary 50 percent with no clear evidence whether this new level is more efficient in achieving UBE goals.
d. The Monitoring and Evaluation (M&E) mandate of UBEC for the basic education sector is constrained by the limited ability, within the legal framework, to make defaulters accountable at the state level. One of the key contributing factors to the limited enforcement capabilities is the weak data collection tool, as well as the inconsistent and unreliable M&E. For example, UBE law mandates UBEC to carry out M&E for grades 1-9 but UBEC tends to rely on states to carry out data collection on their behalf, which often use weak data collection tools which produce inconsistent and unreliable data. Furthermore, as per their mandate, UBEC only captures public sector schools and therefore does not account for the 24 percent of basic education students enrolled in non-public institutions, thereby rendering the M&E findings from UBEC incomplete at best. FMOE, on the other hand, is mandated with quality assurance for both public and non-public institutions. However, there is limited coordination with UBEC, and as a result, M&E findings from UBEC risk being inconsistent and not well aligned with the

broader observations from FMOE. This undermines the policy relevance of M&E findings from UBEC which only provides recommendations on partial findings for basic education sector.

Recommendations

a. Establish a performance agreement between executive agencies (UBEC and SUBEB) to ensure accountability channels are clear, operational and that policy actions are legally enforceable in order to meet objectives. For that purpose, a performance agreement would be helpful to frame the relationship between the ministry of education/UBEC at federal level and the state ministries of education/SUBEBs at state level.
b. Develop a national framework ensuring UBE policy compliance in the basic education sector by leveraging the roles and responsibilities of UBEC at the federal level, SUBEB and LGEA at the State and linking the local government area (LGA) where necessary.
c. Clearly define the role of LGAs in basic education services delivery value chain in light of UBEC's mandate —it is important for LGAs to be an integral part of the school management and M&E process for effective implementation of accountability framework at school level and to empower community's ownership of the local schools to foster greater demand for accountability and transparency in policy implementation.
d. Establish national framework and polices to effectively address inequality by reframing the current UBEC role from one centered on equal distribution to one centered on targeted and problem driven actions.

2. Create incentive mechanisms in basic education policies and ensure alignment of resources with sector priorities

Given the limitations of the legal framework and accountability channels, the effectiveness of policy implementation in the basic education sector depends on the sector's ability to establish appropriate incentive mechanisms to nudge key players in the right direction in terms of the adoption and enforcement of policies. At the federal level for instance, there are no built-in incentives that encourage states to adhere to UBE policies, such as financial incentives tied to the rate of disarticulation in each state, or non-financial benefits such as national recognition for good performance, which could incentivize states to coordinate and implement the disarticulation faster. Furthermore, as mentioned earlier, UBEC funds tend to be allocated equally to all states regardless of their actual needs, and without aligning funding to basic education goals, despite this being the chief mandate of the commission. As such, due to constraints limiting the ability to direct resources where they are the most needed, UBEC is constrained to adopt a uniform and rigid intervention formula rather than working towards achieving the stated goals. In addition to the lack of an incentive mechanism built into the policy design, the sector also seems to be affected by misalignment of resources with its sector priorities. For example, although Early Childhood Development (ECD) is a key focus of the UBE program, targeting reduction in inequality, the UBE program covers only one year of ECD. Also, even though the out of school issue has been highlighted as one of the main challenges for the sector affecting predominantly the northern zones, those areas have not received additional funding to address the issue. As such there is limited scope for addressing sector issues through targeted public spending, rather public resources are allocated based on external considerations. As a result, the federal

intervention which would have improved equity of basic education services is jeopardized. This is a clear limitation of the UBEC intervention which has not been able to capitalize on and exploit the common areas where states are willing to share the burden of the country, and with a system that is limited in its efforts to address the national problems such as high out-of-school rate. At the local or school level, there are also very few incentive mechanisms in place to foster teacher commitment and performance in class. For example there are insufficient policies recognizing teachers' performance, as measured by students' performance on standardized exams, or even rewards (pecuniary or non-pecuniary) tied to good teaching practices. Also, there are inadequate incentives to encourage deployment in rural or remote areas such as hardship allowances, or to increase female teachers which could help address the lack of qualified and female teachers in those areas.

Recommendations

Once the legal and policy implementation environment has been strengthened, the following would help enforce policymaking more efficiently:

a. Establish incentives encouraging policy compliance and reward early adoption of policy with adequate budget allocation. While an adequate policy environment is a pre-requisite, incentive packages will help motivate actors and allow them to develop innovative and effective program implementation strategies, which could be later expanded to other states following a best practice model.
b. Employ results-based and policy-driven intervention framework focusing on states with the greatest needs. The priority areas should be identified on the national level to create national consensus on the issues facing Nigeria as whole, garnering greater support from non-lagging states regarding funding allocation decisions. Developing this consensus at the national level engages states by making them direct stakeholders in the national level issues and ensures greater support for target-based funding.
c. In order to enhance their effectiveness, streamline basic education policies that trigger vertical and horizontal imbalance in service delivery. Inequality in Nigeria does not only exist between states but also within states, a national framework is needed to enhance accountability at state and national level for common, shared goals regarding Nigeria's national education development.
d. Empower school principals/head teachers to identify good practices at school level and motivate teachers and communities for better service delivery outcomes including tackling out-of-school and inequality issues on one hand, and making high-level decision makers accountable on the other hand.
e. Establish clear goals and targets focusing on policy priorities.

3. Ensure adequate education budget with focus on lagging states and communities

The basic education sector in Nigeria is characterized by an inadequate provision of school inputs, including teachers, good classrooms conditions, learning materials, and other school level facilities, although there are large variations in need across states. The current budget allocation to overcome such challenges is inadequate. As such, despite the government's commitment to the education sector, total spending on all levels of education represented only 12.5 percent of total spending in 2013, against

20 percent Global Partnership for Education (GPE) recommended levels. In terms of share of GDP, spending stagnated at around 1.7 percent of GDP, based on the best estimate of available data, compared to the Sub-Saharan Africa average of 4.6 percent in 2012. The allocation to the basic education level (grades 1-9) only represents 44 percent of all total spending in education from all sources, which is also below the GPE best practice recommendation of 50 percent for primary education. The impact of such low spending is particularly important for states that have low internally generated revenues and which also tend to be characterized by high out-of-school rates, contributing to high inequality in access across states.

Recommendations

a. Increase spending on education, while targeting the challenge areas. As it currently stands, public investment in education in Nigeria is at 12.5 percent of total public spending and 1.7 percent of GDP, far below the levels recommended to effectuate any real change to the sector.
b. Introduce explicit mechanisms to ensure more effective coordination of resource mobilization between the three tiers of government. This would allow the country to reach its goals faster and more efficiently.
c. Use unit cost as an instrument in the preparation of policies, and associated budgets, aimed at accommodating out-of-school children into the education system.
d. Decentralization, under the right conditions, can help foster political accountability, but does not remedy the inequality across states. There should be a built-in commitment to equity in the financing formula adopted for resource allocation. It is important for the federal government to retain a strong redistributive role, facilitating the transfer of resources from federal to poorer states and LGAs.

4. Earmark budget for basic education reducing potential inefficient use of funds in the sector

The current basic education finance structure does not lend itself to the optimal use of education funds. The basic education staff salaries are directly withheld at source from the LGA allocation as per the constitutional mandate holding LGAs responsible for financing of personnel costs, which does in fact enable salaries to be paid on time. However, the amount withheld is estimated based on the staff currently on-boarded in the system and does not allow for planning of staff actually required. This means that for areas where children are out of-school and where, therefore, the current number of teachers does not reflect the actual need, the salary withholdings are below the optimal amount needed. In addition, it automatically overrides the essence of budget planning and the execution process of the sub-sector. This practice also discourages the LGA, which does not participate in teacher management, from promoting education services in their local council areas since greater participation in schools entails larger teacher needs and therefore represents an increase in the amount withheld for staff salary at source. As such, resources allocated to the education sector through the withholding process may adversely affect the sector's wellbeing, especially in terms of planning, since it does not account for potential input requirements needed to overcome the current sector issues. Given that salaries account for about 85 percent of the basic education sector budget, the mismanagement of personnel cost has substantial implications for the resources available to the sector, and is a consequence of the lack of an earmarked budget.

Recommendations

a. The basic education sector budget should be earmarked. As it currently stands, staff salary is withheld at source based on number of staff in the system, which is a first step, but having a full-fledged earmarked budget is necessary for proper planning and evaluation of the sector.

5. Adopt governance and financing strategies to address poverty, social, cultural and other barriers to achieving education goals

The challenges facing the basic education sector are multifaceted. In order to truly effect change and address the challenges in education, it is important for the government to fully understand the market failures and institutional constraints that are contributing to the sub-optimal education consumption by households. For example, if girls are not attending school due to cultural preferences and norms, simply addressing the governance and financing bottlenecks, as those identified earlier, may not help in addressing this inequality issue, and a more holistic approach is therefore needed. In Nigeria, there are important poverty, social and cultural barriers that can explain, in part, some of the education sector trends. For example, the out-of-school incidence which impacts about 13.2 million basic school-age children is largely a phenomenon in the northern states (95% of all out-of-school children are located in the north), and there is evidence that it particularly affects children from poor households, girls, and children from rural areas. Furthermore, the analysis shows that more than half of the out-of-school children in Nigeria do not attend school because either their parents, or themselves, do not think it is important to have an education. The analysis also shows that this belief is most common among parents with low levels of education, those working in agricultural sector, and living in rural areas. Lower participation among girls is also tied to parental preference regarding girl education, their distrust of conventional schooling, lack of adequate school infrastructure (such as availability of toilets for girls) and perhaps the reluctance to send girls to school where teachers are mostly male.

Recommendations

a. Institute pro-poor education policy intervention programs focusing on marginalized communities.
b. Ensure schools are equipped to provide gender-friendly learning environment.
c. Government should consider the expansion of alternative learning programs to provide second chance education for parents and youth, giving them the opportunity to overcome educational gaps.
d. Strengthen SBMC and other types of community-level grassroots mobilization to generate awareness for education, including developing sensitization campaigns for communities to overcome social and cultural barriers such as those existing against girls' education.
e. Regularly prepare community-oriented programs through SBMC to increase parent participation in school events and child activities at school.

6. Establish a strategic non-public school management system

Non-public (private and religious) networks are important alternate service providers in the education sector in Nigeria, but there is currently limited enforcement of the accountability structure within this network as well as a need for a clearer management strategy by the public sector to harness the potential

benefits. Under the premise that the public sector would have addressed the sector issues outlined above prior, it would be useful to consider extending a revised public sector management framework to the non-public sector.

Private schools, which account for 20 percent of enrollment, are particularly important service providers in southern states, especially within the ECD level. They also tend to be associated with lower unit costs and are more cost-effective than public schools. On the other hand, religious schools, which represent about 4 percent of enrollment, are particularly important education service providers in the northern states. In addition, the analysis shows that the private school are important providers for wealthier households while poorer households tend to use public schools more. Despite being key players in education provision, the UBE Act and UBEC do not tend to have a clear strategy vis-à-vis the non-public institutions to either (i) exploit the relative cost-effectiveness of private schools to expand access, especially in areas that do not currently have public schools, (ii) ensure accountability structures are in place to foster provision of quality education, and (iii) create a strategy to improve overall access through higher provision of private schools in the north, freeing up public resources to help accommodate children from poorer households.

Recommendations

a. Enhance public-private partnerships (PPP) within a coherent policy and regulatory framework. Given their apparent cost-effectiveness, and their ability to increase access to schooling, there are clear benefits from extending private participation in the northern states where the out-of-school issue is critical. This can be done, for example, by providing grants to private schools to enroll children from poor households.
b. There should be an enforceable accountability structure, regulating the quality and standards of education provision such as regular monitoring and evaluation to avoid the issue of sub-par, predatory provision of services.
c. In order to effectively engage the private sector while ensuring quality of education provision, private and religious schools could gain from adopting the governance framework for public schools.

7. Strengthen M&E system and practices to ensure consistency of information and enforceability of policies

The current M&E system within the basic education sector has a limited operational enforcement mechanism, which directly hinders its effectiveness, and is also characterized by overlapping and duplicated efforts across agencies. At the federal level, UBEC is vested with the responsibility to monitor federal inputs in the implementation of basic education and report to the President on the progress on the implementation of UBE programs, as well as monitor the education sector personnel. At the state level, SUBEB is also vested in monitoring and evaluating of personnel and of UBE programs, while the LGEA does the same at the local level. In addition, the SBMCs carry out monitoring activities at the school level. However, implementation of the findings from each M&E strata faces several challenges including: (i) bridging the mandate and the legal right of the institution as established under constitution. For example, UBEC has the executive right to implement UBEC intervention fund with clear M&E responsibilities to ensure the programs' effectiveness but they have limited legal right to

enforce the policy action at the state level; (ii) the tools for M&E are weak across the board and information gathered for M&E are often unreliable and can be highly politicized- for example, due to the weakness of NEMIS, the statistical data produced by states are often inconsistent and therefore unreliable; (iii) the parallel M&E activities create confusion between the findings of UBEC and those by the federal ministry of education which is inclusive of all levels of education including private schools. In addition, UBEC also depends on the states' submission of data for those articulated under basic education management and supervised by SUBEB; and (iv) political constraints of some states is an important factor hindering the implementation of the recommendations based on M&E findings. As the result, M&E efforts under the current data collection tools and practices are not adequate to inform and guide policymakers into the right decisions to address the inequality and access issues in the country.

Recommendations

a. Strengthen the NEMIS capacity by providing adequate technical and financial resources to produce reliable and consistent data for policy making.
b. The role of local governments in the M&E system needs to be clarified and strengthened. Empowerment of LGAs is key in communities where grassroots campaigning for access expansion is essential.
c. SBMCs can be further operationalized to strengthen school management and performance oversight and with greater and more effective social accountability.
d. Reduce duplication of M&E efforts in basic education management, especially with respect to supervisory roles across UBEC, SUBEB and LGEAs.

8. Establish response measures to direct and indirect impacts of armed conflicts on the education sector

In addition to the other social factors discussed earlier that hinder education sector performance, the ongoing conflicts, which are located largely in the northern states, are important drivers of inequity in access. Conflicts disrupt the service delivery chain in education in two important ways: (i) through the physical destruction of school infrastructure, and (ii) through the incessant threat of violence which keeps children and teachers away from schools for security reasons. The breakdown of out-of-school children indicates that it is largely made up of children who have never been to school (92% at the national level), and is especially high in the conflict states such as Yobe. Given that the internal conflicts intensified after 2010, it is likely that the security concerns are a significant contributor to the finding that most of the 6-14 years old have never been to school. This has important repercussions on the youth's lifetime earnings and impact on poverty.

Conflicts also have indirect repercussions for neighboring states as well. For example, Bauchi has seen an influx of families from nearby conflict states seeking a more secure and stable environment. This has led to an increase in enrollment from children of the displaced households and represents a significant burden on recurrent spending for Bauchi. It has also created challenges in planning and budgeting for the sector given the uncertainty over the permanency of the new entrants in the system.

Recommendations

a. Ongoing conflicts are one of the drivers of inequity in access to basic education, affecting mainly the northern states with some spillover to nearby states. Prolonged instability could create longer term consequences for education outcomes in affected areas. Therefore, there is a clear rationale for federal government intervention with special technical support and additional funding to address such problems that are direct effects from the conflict.

Quality of basic education learning outcome

1. Establish a clear and systematic HRM system

The availability of teachers, and quality of teachers in particular, are important determinants of children's learning outcomes. In Nigeria, teachers' low competence level and poor classroom performance at the basic education level are hindering children's learning outcome. This is a direct consequence of a weak human resource management (HRM) system which has faced challenges in developing competent and motivated teachers. The following are key challenges of HRM at the basic education level: (i) weak or inadequate teachers' incentive scheme- teachers motivation is a key factor in child learning, and the lack of incentives in teachers' composition package is an issue among Nigerian teachers, especially, and there are gaps in sector plans for how to incentivize teachers in the future; (ii) weak accountability system which creates challenges in holding teachers responsible for their performance. For example, although there exists an accountability structure to foster teacher quality improvement, the practice has been to transfer teachers who have been subject to any sort of disciplinary action to remote or rural schools which likely has an adverse effect on the recipient schools. In addition, teacher unions appear to influence political outcomes and tend to resist any policy seeking to increase teachers' accountability or that seek to enhance teacher standards such competence test for promotion or performance evaluations; (iii) lack of adequate and consistent teacher training and professional development system. The parallel HRM structure which is split between SUBEB (acting on behalf of UBEC) and the state government, is one of the key contributors to the conflict regarding teachers' professional development efforts, mainly due to weak coordination and inadequate criteria to define the process. For example, teacher pre-service development or training is offered by both UBEC (through SUBEB) and by State government, but the criteria established by both is inconsistent and discourages some by adversely affecting teachers moral and teaching aptitude; (iv) weak and inconsistent teacher monitoring and evaluation system exposing the sector to academic fraud and mismanagement of the sector. In particular, the NEMIS data quality is weak, in turn undermining the ability of policymakers to have clear information for example on teaching and non-teaching education staff credentials; and (v) inadequacy of clear guidelines and criteria for teacher recruitment, deployment, promotion, remuneration and performance as well as lack of a clear evaluation system. For example, there is no defined teacher allocation formula to help determine teaching needs either based on indicators such as Student Teacher Ratio (STR), class size or facilities at school level. This also leads other inefficiencies such as a high ratio of administrative staff, high STR, low remuneration, stagnated salary scale, and inefficient utilization of scare resources in some areas.

Recommendations

a. HRM system should create mechanism to account for teachers' accountability vis-à-vis students' learning achievements. Accordingly, policy tools to enhance professional accountability should be carefully designed, calibrated and implemented with the aim of providing an effective teacher in every classroom.
b. Establish clear minimum criteria guidelines for teachers' promotion, and recruitment, and incentivization mechanisms, including in-service training, and merit based rewards.
c. School report cards should be used as instruments for all stakeholders to engage with the performance of schools and may also help as an input for policy discussion during education planning and budgeting stages.
d. The HRM strategy should also focus on improving teachers' deployment in remote, rural and difficult locations, and in particular the deployment of female teachers.
e. Nigeria currently harbors very large numbers of education sector staff engaged in M&E and administrative activities, and most of these staff are involved in duplicative efforts. Streamlining these efforts could allow for a redeployment of staff into more efficient roles within the system
f. SBMCs can be further operationalized to strengthen school management and performance oversight.
g. In-service teacher training programs should be targeted, based on the school-level needs and lacunae of the teaching staff. An increase in public education spending earmarked to teachers training is needed, including expanding the existing teachers training centers/colleges and in-service training at local or LGA centers to improve learning outcomes.

2. Strengthen accountability mechanisms and data collection environment to reduce likelihood of academic fraud practices

Academic fraud is one of the key challenges to the quality of education in Nigeria. Although the issues of academic fraud practices tend to be associated with private school providers, public schools are also both perpetuators of academic fraud as well as victims of the private school's actions. The key driver of this issue is mainly the lack of quality assurance standards in public schools which limit the ability of the sector to come up with quality assurance standards for private schools. As a result, many private schools operate without formal registration or with limited enforcement mechanisms enabling children to flow through the school system without acquiring the necessary literacy and numeracy skills. Similarly, some private schools have been found to engage in provision of fake or lower standard certificates, contributing to the production of low skills workforce and low learning outcomes. The fact that the NEMIS is general speaking weak and captures very limited information even from the registered private schools, the effect could be much worse in the future and the severity of the problem may last longer and/or expand as private school providers increase in number.

Recommendations

a. The education sector in Nigeria needs to establish a proper national academic accreditation system and information verification center as well as a strong and consistent M&E system for verification of the certificate issuing process to avoid the practice of academic fraud.
b. The NEMIS needs to be adequately funded and rolled out; it needs to build on an adequate integration of state and local level MIS capacity. A stronger NEMIS would enable more reliable data and therefore stronger empirically-based policy making.
c. To strengthening capacities for evidence-based decision-making, data quality need to be drastically improved, planned surveys need to be funded, performance indicators need to be captured along the entire value chain to help identify delivery bottlenecks, institutionalized third party monitoring needs to be operationalized and information should be made publicly available.

3. Ensure school environment and infrastructure are conducive to learning

School inputs and factors such as appropriate class size, STR, and availability of other school facilities are unevenly accessible across states. In particular, states with better resources are able to maintain a relatively better school environment, conducive to learning while states with limited resources and lagging learning outcomes face significant challenges in providing and maintaining an adequate school environment. For example, overcrowded classrooms, high STRs, bad classroom condition, limited toilet and water facilities are widely observed in most of the northern part of the country, which also tend to have low learning outcomes. This low access to critical school inputs is in large part due to the lack of financing for operating costs. In fact, similar to personnel salary, budgeted allocation to operating costs are not earmarked and mostly depend on UBEC intervention funds which in turn depend on the state's ability to raise the matching grant component as well as its ability to execute the other funds efficiently. This clearly undermines the ability to have a systematic planning of school input and other school level learning provisions.

Recommendations

a. The availability of adequate school inputs and learning environments is key for learning outcomes, and as such, it is crucial that appropriate funds (operating costs and capital expenditure) be earmarked in order to make the learning environment conducive to educational achievement.

4. Introduce a standardized and streamlined learning assessment system

A standardized learning assessment system is key to ensure a consistent and reliable evaluation of learning outcomes. Limited information, based on studies in a few select states, shows that learning outcomes are extremely low in basic education but such limited information is not adequate to develop a national framework for quality improvement. Available national exams (NECO) are not compulsory and it is impossible to fully capture the learning level of basic education children. For example, grade 6 test for entrance to junior secondary school is optional and only students who are interested to join Unity College participate in the testing. Overall, although pieces of available information indicate that the learning level of Nigerian children is generally low, Nigeria is missing reliable and consistent

learning outcome assessment tools for both within country comparison as well as for international comparison. This is especially critical as Nigeria is expected to be one of the top 20 countries in terms of income by 2030.

Recommendations

a. For better M&E of learning outcomes, Nigeria should establish a standardized evaluation system such as a compulsory national test at the end of each level of education.

Matrix for policy recommendations

The detailed policy recommendations were presented above under each section and the matrix below summarizes these recommendations, highlighting sequencing of actions (steps) for effective implementation of the recommendations seeking to improve both equity and quality. However, it should be noted that the first step is not exclusively a precondition to the next step, but is rather an indication that the preceding step is critical for the subsequent step to be more effective and efficient in addressing the issues. The matrix also aligns policy action to the responsible tier of government. Although policy decisions are not taking place at the school level, in order to strengthen actions on the ground, some recommendations also refer to school level action such as action by SBMC or communities. When policy action is critical from one tier of government but requires policy action from the other tiers, double tick (✓✓) is used to indicate the weight. The matrix also suggests a timeline for the policy action where some recommendations require immediate action but may require longer to effectively complete. In this matrix, we assumed activities indicated as "short term" are ones that can be implemented in the next 1-2 years; medium term is 3-5 years; and long term more than 5 years. The matrix presents recommendations for equity and quality separately following the analysis in the main text but it should be also noted that equity related policy recommendation is a necessary condition for improved quality outcomes.

Policy recommendation matrix							
Prioritiz-ed Steps	Sector issues	Recommendations	Recommended to				Time-line*
			Federal/UBEC	State/SUBEB	LGA/LGEA	School/SBMC	
	Equity/access						
STEP 1	Strengthen legal and institutional environment in education policy implementation	Establish clear accountability channels of basic education services delivery	✓	✓			SM
		Develop national framework ensuring policy compliance	✓✓	✓			SM
		Allow full participation of local government councils in the decision making and the supervision of school performance process		✓	✓		ST
		Establish national framework and policies to effectively address inequality by reframing UBEC role to be centered on problem driven actions.	✓				ST
STEP 2	Create incentive mechanism in basic education policies and ensure alignment of resources with sector priorities	Establish incentives encouraging policy compliance; an adequate budget should be allotted to that effect.	✓	✓			SM
		Employ results-based and policy-driven intervention framework focusing on states with the greatest needs	✓	✓			SM
		Streamline policies that trigger vertical and horizontal imbalance in services delivery	✓✓	✓			SM
		Empower school principals/head teachers		✓	✓	✓	ST
		Set goals and targets for policy action	✓	✓	✓	✓	ST
STEP 3	Ensure adequate education budget with focus on lagging states and communities	Increase spending on education while targeting challenge areas.	✓✓	✓	✓		SM
		Introduce explicit mechanisms to ensure more effective coordination of resource mobilization between the three tiers of government.	✓✓	✓			SM
		Use unit cost as an instrument in the preparation of policies aimed at accommodating out-of-school children.	✓	✓			ST
		Adopt equity in resource allocation formula	✓	✓			ST

STEP 4	Earmark budget for basic education reducing potential inefficient use of funds in the sector	✚ Earmark basic education sector budget	✓ ✓ ✓	ST
STEP 5	Adopt financing and governance strategies to address poverty, social, cultural and other barriers to achieving education goals	✚ Institute pro-poor education policy intervention programs. ✚ Ensure gender-friendly school environment. ✚ Expand alternative learning programs/ second chance education for parents and youth. ✚ Strengthen SBMC and other types of community-level grassroots mobilization ✚ Prepare community-oriented programs through SBMC to increase parent participation in school events and child activities	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	SM SM SM SM SM
STEP 6	Establish a strategic non-public school management system	✚ Establish public-private partnerships (PPP) ✚ Ensure accountability and standards for non-public schools ✚ Establish national and local governance framework for oversight of private and religious schools	✓ ✓ ✓ ✓ ✓ ✓	MT ST ST
STEP 7	Strengthen M&E system and practices to ensure consistency of information and enforceability of policies	✚ Strengthen NEMIS capacity ✚ Clarify role of local government in M&E system and strengthen it ✚ Operationalize SBMCs ✚ Reduce duplication of efforts in basic education management by consolidating M&E efforts, etc.	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	ST ST SM ST
STEP 8	Establish response measures to direct and indirect impact of armed conflicts on the education sector	✚ Establish mechanism to mitigate and cope with conflict and emergency situation in services delivery	✓✓ ✓	SM

	Quality				
STEP 1	Establish a clear and systematic human resource management system	✚ Establish teacher incentive schemes and accountability framework	✓	✓✓	MT
		✚ Establish clear minimum criteria guidelines for teacher recruitment, promotion, and deployment	✓	✓	ST
		✚ Use school report card as instrument for performance evaluation		✓ ✓	ST
		✚ Develop incentive package for deployment of teachers to remote and rural areas	✓	✓✓	SM
		✚ Redeployment of non-teaching education sector staff into more efficient roles		✓	SM
		✚ SBMCs can be further operationalized to strengthen school management and performance oversight		✓ ✓ ✓	ST
		✚ Provide systematic/targeted in-service teacher training	✓	✓✓	ST
STEP 2	Strengthen accountability mechanisms and data collection environment to reduce likelihood of academic fraud practices	✚ Establish national academic accreditation system and information verification center to avoid the practice of academic fraud.	✓✓	✓	ST
		✚ Provide adequate funding for NEMIS for reliable and timely data collection for policy making	✓	✓	ST
		✚ Institutionalized third party monitoring	✓✓	✓	MT
STEP 3	Ensure school environment and infrastructure are conducive to learning	✚ Earmark education spending allocation to operating costs and capital expenditure	✓	✓ ✓	ST
STEP 4	Introduce a standardized and streamlined learning assessment system	✚ Establish a standardized national learning assessment system	✓		ML
*ST: Short-term, SM: Short to Medium term, MT: Medium-term ML: Medium-Long term					

I. Introduction

Context

1. Nigeria has achieved remarkable milestones in its development over the last decade. The country has enjoyed sustained economic growth, averaging 6 percent GDP growth since 2004, and has outperformed the Sub-Saharan Africa (SSA) regional average growth rate of 4 percent for much of that period. After the recent GDP rebasing exercise, Nigeria was officially recognized as Africa's largest economy[3], accounting for 32 percent of SSA gross domestic product in 2013. Despite its demonstrated economic prowess, Nigeria faces many challenges including falling oil prices which threaten its fiscal sustainability, persistent and high poverty rates, as well as ongoing conflicts mainly in the northern region, which claimed over eleven thousand lives[4] in 2014. In light of the challenges ahead, and given its cross-cutting nature, the education sector is more than ever a key priority area for Nigeria. In particular, the education sector has an especially important role in (i) ensuring a diversified and resilient economy, capable of withstanding fluctuations in international oil markets, (ii) reducing the poverty incidence through returns to education in the labor market and (iii) fostering development in fragile zones, which is commonly found to be an effective strategy in pre-empting and curtailing conflicts[5].

2. Ten years ago, the Nigerian government set up a legal, financing and institutional framework to ensure the achievement of its policy objectives of providing universal basic education. Although this framework has been reasonably successful in fostering policy coordination and alignment across the three tiers of the government: federal, state and local, its effectiveness has been hampered by significant governance challenges such as weak managerial and professional accountability mechanisms, inadequate financial and human resource mobilization, and a lack of monitoring of results.

3. However, despite the sector's importance and the country's commitment to achieving the MDGs as well as implementing universal basic education, Nigeria's education performance has not shown significant improvement between 2008 and 2013. As a result, Nigeria will not achieve its MDG goals by the 2015 deadline, given that the primary completion rate and gender parity index, 74 and 90 percent respectively in 2013, remain under target. Furthermore, the country has not been successful in its implementation of universal basic education since access to education still remains a crucial problem in Nigeria, with about 30 percent of children aged 6-14 years old out of school.

[3] Nigeria conducted a rebasing exercise in 2014, updating the base year from 1990 to 2010. Since then, Nigeria has surpassed South Africa as the largest African economy, although it remains lower than the latter on a per capita basis given that its population is about 3.5 times that of South Africa.

[4] 98 percent of all fatalities in the country in that year were located in the northern states, 52 percent of all fatalities were from Borno state.

[5] See Smith (2005) and Iyoboyi (2014) for more detailed analysis.

Scope of study and terminology

4. The main objective of this Economic and Sector Work (ESW) is to support the government reform agenda in the education sector by providing analytical input in the areas of governance, and finance to enable the sector to address its key issues. This ESW is the third part of an analytical programmatic project on the education sector in Nigeria that encompasses three policy notes. The first policy note focused on access, equity and quality issues in basic and secondary education while the second policy note focused on assessing the linkages between technical, vocational and tertiary education and the labor market. These two notes conducted a comprehensive assessment of the current situation, identified the key bottlenecks in the education sector including low access, low completion, low quality, low skills or capacity, high out-of-school rate, high inequality, and high dependency on low productive sectors. This third part of the ESW series focuses on the areas of governance, accountability and finance at the basic education level. In particular, it provides (i) an in-depth diagnostic assessment of the policy environment, governance system and accountability framework of the education sector influencing the service delivery and educational outcomes, and (ii) an in-depth analysis of how the education sector is financed focusing on effectiveness, efficiency, equity, affordability and sustainability analyses at the three tiers of government.

5. The report focuses on two of the most salient education challenges highlighted in the first policy note; equity and quality of basic education, and investigates the root causes of these two key challenges utilizing a problem driven approach within the governance, and finance framework. Although the findings from the two policy notes identified numerous challenges across all levels of education, equity and quality of basic education are highlighted as the sources of the most substantial inadequacies and gaps in the education sector in Nigeria. In particular, disparities of access across states as well as based on socio-economic status within states are large. They also appear to some extent within the rural-urban and gender divide. There are also millions of school-age children who remain out-of-school, most of them in the northern regions. Learning outcomes indicators also show that children's learning levels are low, raising concerns over the knowledge and skills acquisition of the current cohort of students and the potential limitations this poses on transferability of their skills upon joining the workforce. Furthermore, the recent Service Delivery Indicators (SDI) report based on 4 sample states highlighted the low competences and skills of teachers, undermining the learning outcomes of children. The core analysis of this ESW builds on the findings of the first policy note and SDI findings, but also utilizes additional information available from the recent household surveys, which are presented in the annex.

6. The country and sector governance framework and challenges affect the effectiveness and quality of public expenditure management and practices, and the delivery of basic education services. The report provides a holistic approach to the analysis by considering all facets influencing service delivery. Governance is defined as 1) institutional effectiveness (both with regard to processes and development outcomes), 2) accountability (political, managerial, professional and social) and; 3) integrity (in policy implementation and frontline service delivery). On accountability, it applies to the Nigerian federal system the analytical framework developed by Lewis (2009)[6] which links governance

[6] This include appropriate standards, incentives, information, and accountability, which induce high performance from public providers whereas: (i) Standards are transparent and publicly known criteria or benchmarks used to assess and inform education policy, provision, and performance; (ii) Incentives are any financial or non-financial

to improved education outcomes through the empowerment of citizens to voice their opinions, influence policies, deepen the monitoring of service delivery, and the enhancement of the accountability of power holders and frontline service providers. The study also explores interactions between the governance framework and public financial management and their impact on the delivery of equitable and quality basic education services across different geographical zones and states. For this analysis, given the narrowly defined and in-depth focus of issues in basic education, the concepts of equity and quality are defined as follows: (a), equity— is the availability of basic education services opportunity for all Nigerian children as measured by preprimary, primary and junior secondary enrollment rates, as well as the proportion of out-of-school children within basic education school cohorts, and (b), quality—is the performance of children in schooling in basic education levels in terms of learning assessment results, on-time completion of appropriate basic education levels and literacy and numeracies skills. Based on these narrow definitions of equity and quality, the analysis aims to answer the follow key questions:

a. What are the most critical governance and public financial management bottlenecks hindering progress in the two worst-performing basic education outcome indicators in Nigeria?
b. To what extent do the governance and public financial management bottlenecks affect the identified critical basic education outcome indicators, how does this responsibility vary across the three tiers of Government in Nigeria and to what extent are they interlinked?
c. To what extent is the quality of teachers responsible for the poor quality of basic education in Nigeria, or the system of assessing child performance?
d. What other critical factors are responsible for the poor indicators? For example, to what extent are demand side factors (e.g. culture, cost of schooling, etc.) or supply side factors (e.g. availability of school inputs) responsible for high levels of out-of-school children?

Data and limitations

7. The quantitative data analysis relied on a mix of survey data and administrative data from multiple sources. One of the greatest challenges in carrying out an empirical analysis on Nigeria is the lack of availability, consistency and reliability of administrative data in general and in particular in education. The lack of a strong and effective data collection process in the country is a direct and important weakness of the system, which has direct repercussions on the validity and accuracy of policymaking. The availability of surveys, such as the GHS, bridged some of the gaps, but it is clear that the data collection capacity of the system has to be prioritized and strengthened in order to allow reliable and empirically substantiated policy decisions-making, as well as enable monitoring and evaluation of targets. The main data sources for the analysis include: (i) 2010/11 and 2012/13 Nigeria Panel surveys, (ii) 2010/11 Nigeria General Household Surveys, (iii) 2008 and 2014 Demographic and

factors that motivate a specific type of behavior or action, and can be positive or negative, i.e. encourage a certain behavior or deter it, (iii) Information in the form of clear definitions of outputs and outcomes combined with accurate data on performance and results collected at regular intervals enables sanctions to be imposed when specified standards are not met, and (iv) Accountability refers to the act of holding public officials/service providers answerable for processes and outcomes and imposing sanctions if specified outputs and outcomes are not delivered.

Health Survey (DHS), (iv) 2010 to 2013 School censuses, (v) DFID school database in some states, (vi) UBEC database and audit report, and (vi) Federal Government budget, state payroll and spending, Federal Account Allocation, and donor partner financing information from the Organization for Economic Co-operation and Development (OECD) and other publication including Central Bank of Nigeria (CBN) and National Bureau of Statistics (NBS).

Qualitative data collection methodology

8. In order to perform a combined analysis, as outlined above, which examines the issues from both the governance and public expenditure perspectives, we captured both quantitative and qualitative data on the education sector. The qualitative data collection process was carried out in three phases:

(i) Phase 1: a first round of field visits was organized in Edo and Kogi states to gather some initial data and better understand the idiosyncratic issues facing various states. Following these brief visits, a workshop was organized in October 2014 with education sector stakeholders from 15 different states—comprising of the Honorable Permanent Secretary, the Director and a designated technical focal point for each state. The workshop also included representatives from the Federal Ministry of Education (FMOE), the Universal Basic Education Commission (UBEC) as well as representatives from DFID to provide additional perspectives to the discussion. During this workshop, a short qualitative survey was administered to the participants. The survey was designed and structured in such a way as to capture the main education issues, from both the finance and the governance sides, faced by each of the states represented in the workshop. The discussions that ensued were based on the information provided. In addition to the qualitative survey, technical officers from each of the 15 states provided both budget and education data, that were used as auxiliary, supporting information.
(ii) Phase 2: informed by the findings from the first workshop, the team carried out a second round of field visits, including institutional qualitative surveys on key education bottlenecks identified across 4 of the 6 selected states- Edo, Kano, Kogi, and Lagos and similar information was captured in a PETS[7] study in Anambra and Bauchi – totaling one state from each of the six geopolitical zones of Nigeria. The visits and surveys were designed using a bottom-up approach, starting at the school-level with headmaster/principal interviews, followed by a survey of the SBMC representatives. Once the issues were better understood at the school-level, follow-up interviews were organized with the Education Secretary at the Local Government Education Authority (LGEA), with the State Universal Basic Education Board (SUBEB) and finally with the commissioner at the State Ministry of Education (SMOE) respectively. The same questionnaires were administered to each stakeholder in each state in order to capture the variation in governance, accountability and finance bottlenecks experienced across states.
(iii) Phase 3: following the field visits, a two-day workshop was organized in Abuja with State representatives from SMOE and SUBEB, from the six focus states, as well as Federal representatives from UBEC and FMOE, private sector representatives, civil society organizations as well as DFID. The discussion was divided into four sessions, (i) the institutional

[7] Public Expenditure Tracking Survey carried out in Anambra and Bauchi by PricewaterhouseCoopers (PwC)

framework of basic education, (ii) equity in access to education, (iii) quality of education, and (iv) the issue of out-of-school children. One of the main objectives of the workshop was to understand how to extrapolate observations from the state visits to the national level. As such, the exchange between the participants was limited, as much as possible, to the issues as they relate to Nigeria as a whole.

Outline of the report

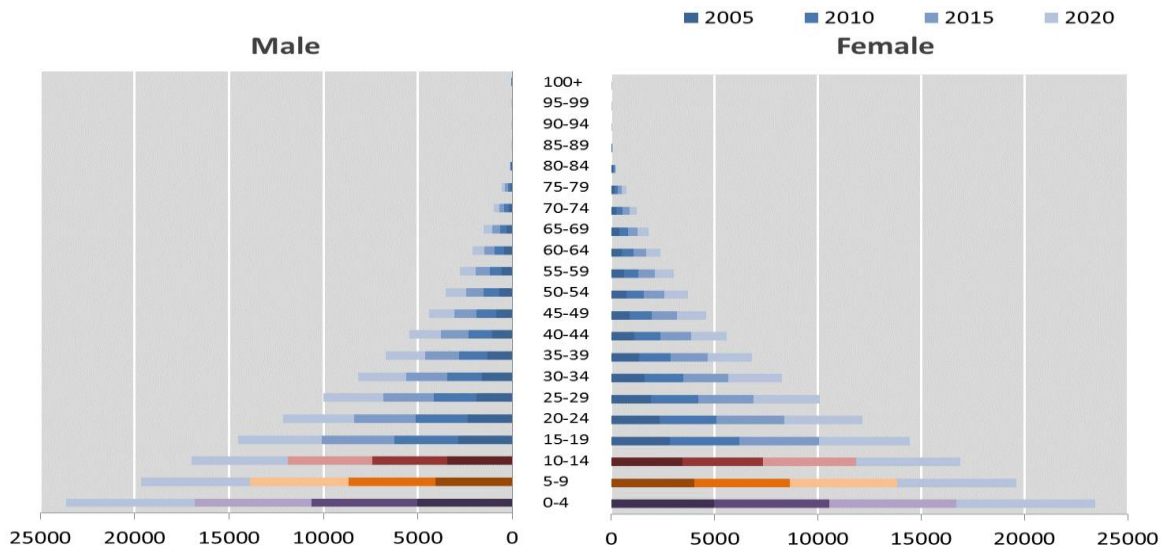
9. Sections 2 and 3 provide a brief overview of the country context in terms of its macro-economy, political economy and education sector in Nigeria. Section 4 provides the legal, institutional and accountability framework pertaining to the basic education governance system. Section 5 provides an overview of the education sector finance, and the political economy of resources allocation. It also describes, more specifically, the basic education finance framework and estimates spending in basic education, which underpins the analysis of the key education sector challenges. Section 6 focuses on the two key education challenges, equity and quality of education, and provides a problem-driven approach to analyze the issues in the context of governance, accountability and finance. The main conclusions and policy recommendations are provided at the end of each sub-section of the analysis. The annexes provide detailed empirical analysis to support findings as well as methodological notes.

II. Country context

Demographic and macroeconomic context

10. **Nigeria is the most populous country in the Sub-Saharan Africa (SSA) region and has one of the largest youth populations in the world, indicating strong potential demographic dividends which could be an important poverty reduction tool for the country.** With approximately 178.5 million people (2014 estimate[8]), Nigeria surpasses by a very large margin both Ethiopia (94 million) and the Democratic Republic of Congo (65.7 million) as the most populous Sub-Saharan African nation, and is projected to keep growing at about 2.8 percent annually. The population is also notably characterized by a large youth cohort, with 44 percent of the population under the age of 15 (Figure 1). About 30 percent of the population is of school-age (6-17 years old), with about 24 percent of the population 6-14 years old. In addition, about half of the population is female (49.1%) and the fertility rate is about 5.5 births per woman, higher than the SSA average (5.0 births per woman in 2013)[9].

Figure 1: Population Pyramid 2005-2020



Source: United Nations, Department of Economic and Social Affairs, Population Division (2013). World Population Prospects: The 2012 Revision, DVD Edition.

11. **The country is organized as a federal constitutional republic, made up of 36 states along with the Federal Capital Territory (FCT), Abuja, and is split into 6 geopolitical zones across the north-south divide:** North Central, North East, North West, South East, South South and South West. The country also comprises 774 local government areas (LGA). The country is ethnically, linguistically and religiously diverse, with about 374 ethnic groups, the three largest being the Hausa, Yoruba and Igbo. The population is 50 percent Christian and 49 percent Muslim. While most people live in rural areas

[8] Source: DHS 2014. The last official census was in 2006.

[9] 2015 estimates from UN. World Population Prospects

(approx. 63%), especially in the northern states, the larger share of residents in the South East and South West are urban dwellers.

12. **Nigeria is a resource-rich country and is the 13th largest oil supplier[10] in the world producing 2.6 percent of the world's supply—although all states do not benefit equally from the abundant resources.** The majority of oil and gas activity is in the Niger-Delta zone, located in the south of Nigeria, with the largest oil production being in the states of Akwa-Ibom, Rivers, Delta, Bayelsa and Cross River. The revenues from oil production are distributed across all levels of government—federal, state and local. The sharing formula, which is determined by the Revenue Mobilization, Allocation and Fiscal Commission (RMAFC) and approved by the National Assembly, has been a contentious point between oil-producing and non-oil producing states. For every dollar of oil revenue, 13 cents are allocated to the eight oil-producing states (referred to as derivation), while 44 cents goes to the federal government and 43 cents are shared among the state and the local and FCT governments.[11] The Federal Account Allocation Committee (FAAC) shares the amount for the state governments based on the following criteria: equally for all states (40 percent), population (30 percent), landmass and terrain (10 percent), social development factor (10 percent), and internal revenue generation effort (10 percent). States with low population, a small landmass, a low social development factor (such as a good rate of primary school enrollment) and low internal revenue generation effort receive lower transfers. This means that some states and LGAs with lower capacity for revenue generation face budget constraints. It should be noted that the crude oil sector has faced particularly difficult circumstances in recent years: (i) persistently lower oil prices, (ii) oil production losses (several pipelines were temporarily shut down in 2013 due to oil theft), (iii) continuous security instability, especially in the North (from 2010 to 2014 there were more than 4,400 cases of violence against civilians, battles, riots or protests and a total of 23,174 fatalities in the country[12]), and (vi) low political consensus for key reforms.

13. **With a revised GDP of close to US$500 billion in 2013, Nigeria is Africa's largest economy and the 24th largest in the world and its growth potential is strong.** Since the return of democratic rule in 1999, the country has undergone major reforms supporting the rebuilding of institutions and the development of a more robust economy. Following the GDP rebasing[13] in 2014, revised 2013 GDP figures indicated that Nigeria was the 24th largest economy in the world, ahead of countries like Belgium and Taiwan. The growth rate (after rebasing) oscillated between 4.3 and 5.4 percent between 2011 and 2013 and is expected to have increased to 6.1 percent in 2014 (Table 1). It has consistently outperformed the SSA average (3.8-4.2%) over the same period, 2011 to 2013.

14. **Fiscal consolidation is progressing mainly through strong efforts for budget control at the federal level.** The medium term outlook reveals that federal spending as a share of GDP is expected to decline although state and local government spending is still on the rise (Table 1). However, it is interesting to highlight here that more revenue is generated at the state and local administration tiers of the government (more than 65 percent of all public revenues), although these tiers are associated with relatively high expenditure. In terms of share of GDP, the consolidation efforts showed a significant cut in spending at the federal level (from 9.9 percent of GDP in 2010 to 5.4 percent in 2013,

[10] The top three suppliers are Russia: 13.8 percent, Saudi Arabia: 13.1 percent, United States: 12.2 percent

[11] Source: IMF Selected Issues Paper, March 2015

[12] Source: ACLED database

[13] The rebasing uses 2010 as the base year instead of the previously utilized base year of 1990.

projected to decline to 5 percent in 2016). However, at state and local tiers, the cut is marginal and the share of expenditure in terms of GDP is projected to remain relatively unchanged. It should also be noted that the low share of government spending in GDP is mainly due to GDP rebasing that nearly doubled the GDP figures, leading the revised spending share to be half the pre-rebasing levels.

Table 1: Key Macroeconomic Indicators

	2010	2011	2012	2013	2014*	2015*	2016*
Real GDP growth (2010 prices)	9.9	5.3	4.3	5.4	6.1	4.8	5.0
GDP at market prices (trillions of Naira)	55.5	63.7	72.6	81.0	90.2	95.4	111.1
Nominal GDP per capita (US$)	2,396	2,612	2,835	3,082	3,302	2,894	2,880
Consolidated Government							
Total Revenue (in billions of Naira)	6,883	11,285	10,393	8,938	10,469	12,189	12,401
Federal	2,181	2,838	2,763	3,046	3,533	4,074	4,319
States and Local Gov't	4,702	8,447	7,630	5,892	6,936	8,115	8,082
Total expenditure (in billions of Naira)	9,244	11,093	10,541	11,030	11,922	13,233	13,831
Federal	3,980	4,070	4,153	4,489	4,586	4,965	5,123
States and Local	3,300	4,332	4,434	4,742	5,454	6,302	6,691
Other[1]	1,964	2,691	1,954	1,799	1,882	1,966	2,017
Total expenditure as % of GDP	17%	17%	15%	14%	13%	14%	12%
Federal	7%	6%	6%	6%	5%	5%	5%
States and Local	6%	7%	6%	6%	6%	7%	6%
Other	4%	4%	3%	2%	2%	2%	2%
Federal only (in billions of Naira)							
Recurrent expenditure	3,080	3,357	3,408	3,533	3,566	3,796	3,913
Personnel	1,564	1,854	1,811	1,860	1,872	1,924	1,977
Percent of recurrent	51	55	53	53	52	51	51

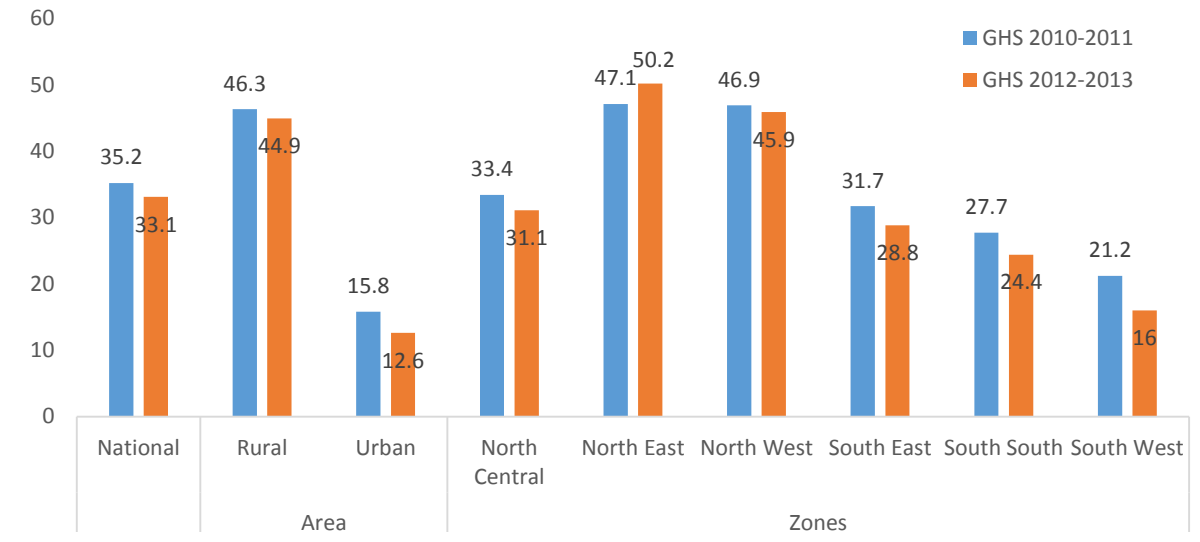
Source: International Monetary Fund (IMF) Article IV consultations

15. **In spite of strong economic performance, poverty is still pervasive in Nigeria, especially in rural areas and is more prevalent in northern states**. At the national level, the poverty headcount ratio improved only marginally from 35.2 to 33.1 percent between 2010/11 and 2012/2013 (Figure 2) and remained about 3.5 times higher in rural areas than in urban areas during that period. Southern states tend to have a much lower poverty incidence, between 16 and 28.8 percent, compared with 31.1 to 50.2 percent in the north. Southern states were also more successful at reducing poverty between 2010/2011 and 2012/2013, with the South West zone leading with a reduction of 5.2 percentage points while poverty rates in North East actually increased from 47.1 to 50.2 percent over the same period. However, the poverty gap (not shown) which measures how far the poor are to the poverty line, and the poverty severity measure, which evaluates the severity of the gap by assigning a larger weight to the poor who are very far from the poverty line, both indicate that while poverty incidence decreased nationally, the poor are getting poorer and their poverty is becoming more severe, driven mainly by

[1] The other category includes spending from extra budgetary funds, ECA/SWF, as well foreign-financed capital spending.

trends in southern states (less but more sever poverty) whereas the north has been able to marginally reduce the gap and severity of poverty.

Figure 2: Poverty headcount ratio, national, by area and by zone.



Source: Nigeria Economic Report, 2014

Governance context

16. **The "federal character" of Nigeria is a strong determinant of policy making (design and implementation) and while effectiveness requires strong intergovernmental coordination, this is often undermined by competing claims for sovereignty.** Nigerian federalism is essentially "distributive"[14], aiming at an equitable political representation and distribution of resources across the 36 Nigerian states, which themselves have multiplied from the original three regions at independence, to protect the interests of minorities and avoid the hegemony of any particular ethnic group. The distributive nature of fiscal federalism in Nigeria translates into highly politically sensitive and rigid allocation formulas of fiscal revenue, which cannot be easily adjusted for enhanced development effectiveness or to mitigate regional disparities. Since the Biafra war, the main ethno-regional political elite groups have tried to preserve the unity of the country by sharing positions of power and distributing territory and fiscal resources. This arrangement differs from power sharing in other African countries in that it extends to territory and revenue allocation and results from a deliberate decision[15]. Despite its strong rationale and resilience[16] as a significant feature of the governance framework in Nigeria, this

[14] Suberu, 2001

[15] Power-sharing was adopted to moderate the adversarial elite behavior that marred Nigeria's first democratic experiment and plunged the country into civil war." (Orji, 2008)

[16] It is argued that behind the symptoms of political instability and antagonism, there is a strong vector of continuity and even consensus in Nigerian politics and governance: "despite regime and constitutional changes, most elements of power-sharing in Nigeria were preserved and passed on from one regime or constitutional order

arrangement is regularly debated in the political arena and the balance of power between the three tiers of the Nigerian government is not yet stabilized, as reflected in the 2014 National Conference report.[17]

17. **In education, the specifics of Nigeria's "federal character" are reflected in the inevitable intricacies of the constitutionally-mandated shared responsibility of the three tiers of government—federal, state and local—and the need for horizontal and vertical policy alignment and coordination, while allowing for flexibility in implementation to accommodate very diverse contexts and expectations (including from various religious communities).** The interdependence between the two upper tiers of government plays a critical role in Nigeria in policy design and implementation. For instance, free, universal and compulsory primary education was first introduced at the regional level prior to independence, before being promoted as a national program[18]. Also, state governments tend to emulate initiatives taken by neighboring ones, and some level of benchmarking of state level indicators and peer-learning has been institutionalized, including by the Governors' Forum under its peer review mechanism[19].

18. **Nigeria's federalism, and the disparities engendered within such a system, are also reflected in the wide range of development outcomes across the states as well as across local government areas.** Although the southern part of the country fares better on most development indicators than its northern part, the performance of state governments varies widely, with northern states performing comparatively better in certain critical dimensions. As highlighted in the previous policy note, although net school attendance in primary education remains significantly lower in the north on average, it increased significantly between 1999 and 2010 (jumping by 30 points in Jigawa and Kaduna) while deteriorating in the south[20]. In Nigeria, intra-regional variations are often as wide as interregional ones and obfuscate in many instances the north-south divide. This reflects the critical importance of policy making at state level on development outputs and outcomes.

19. **Despite significant governance reforms at federal and state level since 1999, Nigeria's governance dimensions such as transparency, accountability, corruption, investment climate or personal safety remain weak[21].** Citizens' trust in public officials is at low ebb: according to Afrobarometer, at the end of 2014 more than half of them believe that elected officials are corrupt and although two-thirds of the population prefer democracy to any other forms of government, the exact same proportion is dissatisfied about it including for lack of perceived progress on corruption.

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to another (…) it is oversimplifying to perceive Nigeria as a regime marked by discontinuity because of some instances of political and institutional breakdowns." (Orji, 2008)

[17] The National Conference is an assembly of delegates from various background and political affiliation convened by the President of Nigeria to debate national issues. This conference called for a re-articulation of the 1999 constitutional responsibility of education sector management as stated above.

[18] Tsafe, 2013

[19] See State Peer Review Mechanism, Nigeria's Governors Forum.

[20] World Bank, 2013

[21] See 2014 Mo Ibrahim index.

20. **Corruption affects service delivery across board, including diverting government revenue[22] and expenditure through tax evasion, as well as leakages on current and capital expenditure. Petty corruption directly impedes access to education by the poor**. According to a recent survey by ActionAid, nearly half of the respondents claim that they have to pay a bribe to secure admission to school for their children[23]. This defies the policy objective of granting every child free and compulsory basic education. Other forms of corruption affect the quality of education as well as access and equity such as the diversion or misuse of public funds, examination malpractice, etc. It is reported that "once they have graduated, students face pressures to pay teachers and administrators to sign "clearance" forms, without which schools will not release official results, thereby suspending any future educational options. It has also been observed that some "teachers choose to be entrepreneurial in schools. Some accept bribes to help students cheat on exams. Other abuses of power come in the form of using student labor to create goods that teachers then sell, or forcing students to attend and pay for additional tutoring[24].

21. **Political patronage also seems to negatively impact the implementation of basic education at the local level. This is reflected in the inexplicably high proportion of non-teaching staff in public pre-primary, primary and junior secondary schools in certain states**. Whereas the national average hovers around 11 percent of total education staff, this proportion climbs as high as 70 percent in certain states, according to the National personnel audit of UBEC 2010.

22. **Violence and insecurity also severely impact education outcomes in afflicted areas[25] and the on-going insurgency in the North-East reflects the political sensitivity if not volatility of education.** In the North-East, insurgents, identified by the generic moniker of Boko Haram, which in vernacular language approximately translates into "western education is prohibited", have specifically targeted public schools for girls (including by abducting close to 300 schoolgirls from a public secondary school in Chibok in Borno state in April 2014), entailing huge population displacement[26], destruction of school facilities (over 300 schools have been destroyed or damaged in the past few years) and school closure and dissuading attendance of girls hence further increasing the gender gap.

23. **Education is generally politicized and Nigeria is no exception to the rule.** Education ranks high on the Nigerian political agenda. On the eve of the national election in April-May 2015, Nigerian citizens considered it the main issue they expected elected officials to focus on. Education outcomes, such as those captured by the MDGs, are tracked at federal and state level and heatedly debated in the political arena. As in many other countries, teachers are a critical, some claim "formidable",

[22] Nigeria is one of the developing countries the worst affected by illicit financial outflows: according to a recent African Union report, this amounted to 217 bn USD between 1970 and 2008, i.e. 30% of total funds smuggled out of Africa and Global Financial Integrity estimates such outflows to 160 bn USD between 2003 and 2012 including 8 bn USD in 2012, i.e. about 40% of the African total (and the 9th rank across developing countries)

[23] ActionAid, 2014

[24] Smith, 2007, Reboot, 2013

[25] Spread over the whole country until 2009, social violence is localized in the North-East and Central since then (Nigeria Social Violence Project, John Hopkins University, 2015); the state of emergency proclaimed in three northern states in 2013 until recently had twice been proclaimed in southern states previously.

[26] Over 650,000 people are internally displaced, according to official estimate.

stakeholder[27]: teachers' unionization is mandatory in Nigeria, which has a strong tradition of trade unionism, and the Teachers' Union is closely and formally associated with policy decision making. They sometimes resist reforms effectively but can also be instrumental in the implementation of reforms.

24. **Informal social and power structures and actors, such as traditional leaders, are formally consulted and associated to policy making along with established civil society organizations.** This is reflected in particular in the membership of SBMC, Local Government Education Authorities (LGEA), and ad hoc executive agencies at state and federal level, namely the State Universal Basic Education Boards and Universal Basic Education Commission, established across the country by the Universal Basic Education Act of 2004. The role and weight of these informal power structures vary widely across the country depending on the specifics of local society organization. But this is an important feature of local governance across Nigeria and beyond, since formal and informal power sharing mechanisms at state and federal levels result in the public's representation in public institutions and participation in decision-making process across the three tiers of the Nigerian government.

[27] International experience proves that teachers' unions can be actively supportive of education reforms (Grindle, 2004) and that "the relationship between teacher union membership and student achievement could go either positive or negative, and is thus an empirical question" (DFID, 2014).

III. Education sector context

25. **Nigeria's commitment to universal primary education dates back to the 1950's, and in recent years the country has expanded its focus to the basic education level (which extends to the three years of junior secondary education).** While still under the British rule, the government of the Western Zone was the first zone[28] to successfully introduce free primary education in 1955, followed by the Eastern Zone in 1957. The Northern government was the only zone to not implement any such program given that the zone had a strong network of Islamiyah schools already and did not feel the need to adopt the same policy as the Western and Eastern zones. In 1976, the country's first national level program, Universal Primary Education (UPE), was launched. The country continued its efforts to make education accessible with the introduction of a Nomadic Education program in 1989, ensuring access for the nomadic population. In 1999, the president launched the Universal Basic Education (UBE) program, an improved version of the UPE program already in place, ensuring universal education for primary school as well as for the three years of junior secondary education. The introduction of this policy in 1999 culminated with the adoption of the UBE Act in 2004 that effectively operationalized the policy through the introduction of the UBEC to manage the implementation of the UBE vision.

26. **Together, the UBE Act and the National Policy on Education form the main regulatory framework for the education sector in Nigeria.** The National Policy on Education was first introduced in 1977 with subsequent revisions in 1981, 1998, 2004 and 2006. The National Policy on Education is a key document for the education sector, outlining the intent, objectives and priorities of the education sector, ensuring a unified approach within the decentralized framework that characterizes Nigeria. The National Policy on Education includes guidance and recommendations on the structure of all levels of education (in line with the prescriptions under the UBE Act), on teacher qualification and management, teaching practices such as encouraging the use of national languages as a teaching medium, and even the contents of the curriculum.

27. **A key objective of the current National Policy on Education the attainment of universal basic education by 2015 in line with the MDGs for education**. The Federal Constitution of 1999 stipulates that the government should provide free education for all citizens as soon as possible and, as mentioned earlier, education is a key component of the Vision 20:2020. Subsequently, both federal and state governments are seeking greater overall control and funding of basic education in order to ensure the attainment of UBE goals and objectives.

[28] Nigeria in the 1950's was divided into three zones: the Northern Zone, Western Zone and Eastern Zone and the Macpherson Constitution of 1951 granted each region organizational authority to each region regarding education matters (UNESCO, 2015- Education for All review)

Universal basic education policy

28. **The Nigeria's UBE policy seeks to provide free compulsory basic education to all citizens[29] and declares government priority for basic education**. The policy provides wide-ranging measures, including federal government funding to "ensure that Government at all levels in Nigeria provides free, compulsory and universal basic education for every child of school-age". In terms of scope, the policy focuses on improving both formal and non-formal schooling in primary and junior secondary schools, promote functional education such as adult literacy education and education for school-age children of nomads and migrant fishermen. The main goal of the program is "to eradicate illiteracy, ignorance, and poverty as well as stimulate and accelerate national development, political consciousness, and national integration" (see Box 1 for detail).

Box 1: Universal Basic Education
The federal government's intervention shall provide assistance to the states and local governments in Nigeria for the purposes of uniform and quality basic education. Every government in Nigeria shall provide free, compulsory and universal basic education for every child of primary and junior secondary school-age. Every parent shall ensure that his/her child or ward attends and completes a) Primary school education and b) Junior secondary school education The stakeholders in education in each local government area shall ensure that every parent or person who has the care and custody of a child performs the duty imposed on him/her under the Universal Basic Education Act, 2004 Transition from primary to junior secondary school (JSS) should be automatic, as basic education terminates at the junior secondary school level; thus, entrance examinations may no longer be necessary. Emphasis will be placed on effective continuous assessment while final examination and certification will now be done at the end of the nine-year basic education program. The secondary school system should be restructured so as to ensure that the JSS component is disarticulated from the senior school system (SSS) as stipulated in the National Policy on Education (NPE)
Source: UBE Act, 2004

29. **The Government's strategy to achieve the UBE objectives is as far-reaching as the policy objectives, requiring both strong capacity and an effective accountability framework to achieve results**. In particular, the strategy includes a range of measures, such as (i) institutional reforms to improve delivery capacity; (ii) strategic planning and collaboration among all three levels of governments - federal state and local; (iii) strategic funding; (iv), teacher professional development to promote effective teaching and (v) active community participation in the delivery of basic education. These intentions are reflected in the legal and institutional framework for the provision of basic education in Nigeria.

[29] The policy is distinctive in its approach and focus, underscoring the historical experiences of universal education, in terms of its challenges and demonstrated significance in improving quality, access and equity in education.

Administration of education system

30. **The federal, state and local governments of Nigeria share concurrent responsibilities in the regulation and administration of the education sector.** However, basic and secondary education remains mostly under the management of the state and local governments while the federal government is responsible for the administration of federally-owned universities. The federal government also manages 104 Federal Unity Colleges that were set up to serve as model schools for state secondary schools. Under the provision of the 2004 UBE Act, operational responsibility for all aspects of basic education provision has been given to the state universal basic education boards. Responsibility for senior secondary education remains under the purview of state ministries of education (SMOEs).

31. **In addition to public schools, the private sector and religious schools are also important players in the provision of education in Nigeria.** Private schools which have increased substantially over the years, are mostly an urban phenomenon, especially in pre-school provision. In some areas, such as Lagos, private school provision at the basic education level has been associated with higher quality education, however some states have also faced issues with unregulated private schools which do not meet the standards set by the FMOE and which have raised concerns about the impact on the quality of education.

32. **Religious schools, predominantly Islamic, which date back to pre-colonial days, are particularly important in the provision of education in the northern states.** There are many types of Islamic schools in Nigeria and they are typically categorized into three groups: Qur'anic, Islamiyya and Tsangaya/Almajiri Schools. Qur'anic schools in general focus on religious education with no secular education programs and tend to be informal in nature. Almajiri schools are similar to Qur'anic schools in that they tend to be informal and are often nomadic. Non-integrated Islamiyya schools are more conventional than Qur'anic or Almajiri schools but still limit their curriculum to religious education whereas integrated Islamiyya schools adhere to national guidelines in terms of curriculum, teaching core subjects such as English, Mathematics, Science and Social Studies as well as the traditional religious education.

Structure of the education system

33. **The formal education system in Nigeria uses a common basic structure across the country.** The Nigerian education system follows the 1-6-3-3-4 structure, starting with one year of pre-primary[30] at age five, followed by six years of primary education, which usually targets children aged 6 to 11 years old. The first three levels are considered as basic education in Nigeria (See Annex A, Figure A 1).

34. **The organization and content of basic education has been adapted to enable all students to achieve a sound education foundation.** Basic education in Nigeria uses the automatic promotion policy

[30] Pre-school usually corresponds to 3 years of schooling for children aged 3-5. However, the Federal Ministry of Education (FMOE) announced in 2011the addition of one-year of pre-primary education as part of the official system to better prepare children for school (National Bank of Nigeria Annual Report, 2011).

within each cycle of education to help students complete the basic education level. At the end of the primary school cycle, students obtain a primary school leaving certificate which is awarded on the basis of continuous assessment and which is a pre-requisite for entry into junior secondary school[31]. The curriculum content of basic education ranges between 10 and 16 subjects, and focuses on core compulsory subjects, which include English, Mathematics, Basic Science, and one major Nigerian language. The curriculum has been adapted to help Nigeria achieve its Education For All (EFA) or MDG in education and ensure students are equipped with the necessary basic knowledge and skills. At the JSS level, students have two options: (i) pre-vocational stream and (ii) academic stream, and students in both streams are required to follow the common core subjects, although there may be some differences in the elective courses chosen. The end of the three years of the JSS cycle is marked by the Basic Education Certificate Examination (BECE)[32] and successful students are awarded the Junior Secondary School Certificate (JSSC) which is needed to progress to senior secondary school.

35. **Advancing to senior secondary or technical school depends on the successful completion of basic education.** Upon completion of JSS, students are streamed into senior secondary schools, technical schools or training centers. The successful students in senior secondary cycle awarded the Senior School Certificate (SSC) issued by the West African Examination Council (WAEC) if the student sits for the WAEC exam and/or the National Examination Council (NECO) for the students taking the NECO exam. In many cases, Nigerian students sit for both WAEC and NECO exams. The SSC is a pre-requisite for admission to higher education. In addition to the SSC, students must pass the Universities Matriculation Examination (UME), which is conducted by the Joint Admissions and Matriculation Board (JAMB) and must score at least 50 percent to be admitted to University[33]. For those students who choose to attend technical colleges in lieu of SSS, they obtain a National Technical/Business Certificate instead of the SSC upon completion and may choose to further their studies in their field to obtain an Advanced National Technical/Business Certificate.

36. **Even though the Federal Government has limited operational authority over basic education, it established a 2011-2015 national sector strategy intended to help the country achieve its education goals.** There are six main focal areas to the sector strategy: (i) strengthening the institutional management of education, (ii) improving access and equity, (iii) improving standards and quality assurance, (iv) providing teacher education and development, (v) enabling technical and vocational education and training, and (vi) finding ways to increase funding, partnerships and resource mobilization.

[31] Those students who wish to attend Federal Government Unity Colleges have to, in addition, sit for the National Common Entrance Examination, which is administered by the National Examinations Council (NECO) at the end of grade 6.

[32] While each state of the federation and the FCT conduct the BECE for their candidates, NECO conducts the BECE for Federal Unity Colleges, Armed Forces Secondary Schools and other Federal establishments operating Secondary schools. Private Secondary schools also take part in the NECO BECE provided they are permitted by their State Ministry of Education. Twenty-five subjects are administered at the BECE level. A candidate is expected to sit for a minimum of thirteen subjects and a maximum of fifteen. A candidate is deemed to have passed the BECE if he/she has passed in six subjects including English and Mathematics (source: NECO)

[33] Unless the student has gone through the WAEC O and A level examinations, in which case they can be admitted without going through the UME.

IV. The governance of basic education in Nigeria

Legal and institutional framework

37. **The existing legal framework for basic education provides only some of the necessary legal provisions for effective policy implementation, has had only limited success and has secured insufficient resource allocation**. At the level of educational institutions the established ad hoc framework has failed to strengthen accountability for results and ensure consistent and robust policy implementation; at the national level policy alignment and coordination across the states remains essentially formalities rather than substantive, and the local tier of the government is effectively sidelined from policy implementation.

Legal framework

38. **Although the objective of universal, free and compulsory education is enshrined in the Nigerian Constitution, in practice its provisions assign responsibility across the three tiers of the government without effectively empowering local governments or allowing them to take up those responsibilities.** The 1999 Constitution mandates the government to ensure "equal and adequate educational opportunities at all levels", "strive to eradicate illiteracy; and to this end […] as and when practical provide (a) free, compulsory and universal primary education; (b) free university education; and (c) free adult literacy programmes." It states that secondary education falls under the concurrent jurisdiction of the federal and state governments, and that primary, adult and vocational education falls under the concurrent responsibility of state and local governments. It also ensures that part of the government revenue collected at the federal level is effectively transferred to state and local governments. However, the Universal Basic Education Act of 2004, based on the 1999 constitutional mandate, essentially set up the institutional framework of basic education at federal, state and local levels by creating ad-hoc executive agencies, UBEC at federal level, SUBEB at state level and LGEA at local level, but it has not been able to ensure their accountability and performance .[34] This model has been replicated consistently across the states and this legal framework has ensured a consistent institutional framework for basic education across the country and a fair level of intergovernmental coordination, but with limited accountability of the state governments to the federal government. As early as 2007, the National Council of Education recommended a review of the UBE Act and the matter is still pending in the political agenda. Several of its provisions are considered for revision, including the extension of its scope to senior secondary education. Box 2 summarizes key provision of the UBE Act.

Box 2: The key provisions of the UBE Act 2004

[34] While mandating "every government", i.e. each of the three tiers of government to "provide free, compulsory and universal education to every child", it only grants the federal government the subsidiary role of "assistance to the States and local Governments in Nigeria for the purposes of uniform and qualitative (sic) basic education throughout" the country.

The UBE Act of 2004 makes basic education compulsory and free for all school-age children, delineated the roles of the three tiers of government and establishes executive agencies in charge of policy implementation at each level, federal, state and local and earmarks a minimum level of public resources to basic education.

1. The services provided in public primary and junior secondary schools shall be free of charge. A person who receives or obtains any fee contrary to the provisions of the Act commits an offence and is liable on conviction to a fine not exceeding N10,000.00 or imprisonment for a term of three months or both.
2. Every Government in Nigeria (i.e. each tier of the Nigerian government, federal, state and local) shall provide free, compulsory and universal basic education for every child of primary and junior secondary school-age. The federal Government shall provide assistance to the States and Local Governments in Nigeria for the purpose of uniform and qualitative (sic) basic education throughout Nigeria.
3. The implementation of Universal Basic Education shall be financed from Federal government block grant of no less than 2 percent of its Consolidated Revenue Fund; funds or contributions in form of Federal guaranteed credits and; local and international donor grants.
4. A Universal Basic Education Commission (UBEC) is established at federal level to formulate the policy guidelines for the successful operation of the universal basic education program in the Federation; receive block grant from the Federal Government which it allocates to the States and Local Governments and other relevant agencies implementing the Universal Basic Education in accordance with an approved formula; prescribe the minimum standards for basic education, etc.
5. Transition from Primary to Junior Secondary School (JSS) should be automatic (which entails the phasing out of examination at the end of primary).
6. Junior secondary schools should be separated ("disarticulated") from Senior Secondary Schools.

In each state, a State Universal Basic Education Board (SUBEB) is established, its structure and functions being determined by state level legislation. In each Local Government area, a Local Government Education Authority (LGEA) is established.

The UBE Act also mandates every parent to ensure that his/her child or ward attends and completes primary and junior secondary education and punishes those who do not enroll or who withdraw their child/ward from school with imprisonment on second conviction.

39. **Nigeria went through several policy reforms to improve service delivery outcomes in basic education with limited and inconsistent implementation.** For example, the Child Rights Act was enacted in 2003 at the federal level to prohibit early marriage and promote enrollment of girls and it was replicated by two thirds of Nigerian states (although few from northern states), but the UBE Act of 2004 does not have any specific legal requirements for gender parity[35]. In addition, the UBEC does not capture the provision of the private sector although the latter plays a significant role, particularly in the southern states. Hence, the legal framework of basic education has not been aligned to ensure effective policy implementation in various regards that warrant its revision as already recommended by stakeholders, including the National Council on Education. It is devoid of any actionable requirement on access, equity and quality of basic education and fails to provide the legal foundation

[35] The inadequacy of the policy and legal framework for gender parity in education reflects in the observation that "most gender-based education initiatives on which information is publicly available fall under the purview of donor-funded programs" (EDOREN, 2015).

for critical policy objectives summarized in the National Policy on Education of 2012 such as: (i) the promotion of private investment in education: the National policy on Education "welcomes the establishment [of private schools] provided the set minimum standards are met"; (ii) the integration of religious education: "the integration of formal basic education curriculum into Qur'anic and Islamiya schools"; (iii) the mitigation of regional disparity in access: "equitable access to educational opportunities for all Nigerian in all parts of the country"; (iv) physical access to school facilities given a policy objective that primary and junior secondary schools be "planned as neighborhood schools"; (v) an adequate supply of teachers with a policy objective of a maximum teacher/student ratio of 1 for 35 in primary schools; (vi) quality of education with a state policy objective to "ensure the acquisition of the appropriate levels of literacy, numeracy, communicative and life skills"; (vii) the "appropriate devolution of educational functions and responsibilities to states [...] and local governments"; (ix) the institutionalization of the participation of communities "in the administration and management of their schools," through School Based SBMC; and (x) teachers' qualification and professional development.

Institutional framework

40. **The institutional framework of basic education has been designed to achieve a number of critical objectives for effective policy implementation but its effectiveness has proved limited in critical dimensions, including accountability for results.** Its objectives are to: 1) institutionalize the separation of policy making vested with line ministries from policy implementation vested with executive agencies; 2) structure horizontal and vertical intergovernmental coordination and policy harmonization and; 3) ensure the representation and participation of stakeholders in policy implementation across the three tiers of Nigerian government. But it has failed to: 1) ensure the accountability and oversight of established executive agencies (UBEC and SUBEBs); 2) tally the functions of established executive agencies with the whole array of stated policy objectives including the oversight of private schools; and 3) effectively involve local governments with policy implementation.

At federal level

41. **At the federal level, two institutions play the most critical role: the National Council on Education, the body that coordinates policy making among the different tiers of government, and UBEC, an executive agency of the federal government for policy implementation.** This institutional framework reflects the subsidiary/supportive role of the federal government in basic education and ensures intergovernmental coordination (within Nigeria) in policy making through participative decision making. But it does not provide the federal government the institutional capacity to effectively deliver "assistance to the States and Local governments in Nigeria for the purposes of uniform and qualitative basic education throughout Nigeria" as per its legal mandate under the UBE Act.

The Universal Basic Education Commission (UBEC)

42. **Since UBEC board members are appointed for four years by the President upon recommendation from the Minister of Education, and represent various stakeholders (the federal ministry of Education, the teachers' union, PTA, women groups), its accountability to the federal ministry of Education is inevitably problematic, if only because the funds it is managing are earmarked and routed outside of the budget of the Ministry of Education.** In effect, although the UBEC chairman seems essentially accountable to the President and the government as a whole (the federal executive council), the agency seems hardly accountable at all if only for the lack of any performance assessment and management framework, including reporting on results (i.e. on the outputs of the transformation fund which is its main lever). The separation between policy making and policy implementation results in inevitable challenges in the relationship between the principal (the ministry of education) and its agent and calls for an institutional mechanism to frame their relationship, such as a performance agreement, and the clarification of UBEC's mandate to address existing conflicts of jurisdiction with the ministry or gaps in their respective jurisdiction.[36]

The National Council on Education (NCE)

43. **In policy making the National Council on Education, was established to ensure horizontal and vertical policy harmonization country-wide.** The NCE gathers more than 1200 stakeholders including the Federal Minister of Education and all state level Commissioners of Education under the chairmanship of the Federal Minister of Education. It is supported by a Joint Consultative Committee on Education (JCCE) at the administrative level which prepares the Council's deliberations. It plays an important role for the effectiveness of the basic education policy across the country as a collegial decision making body. Its decisions are taken by consensus (after an elaborate and multi-layered screening process) and its executive secretariat monitors compliance by state governments through the NEMIS. The NCE decides on the national curriculum and has been instrumental in the institutionalization across the states of SBMC. However, although the secretariat of the NCE monitors the enforcement of its decisions across the states, its effectiveness in ensuring consistency in policy implementation across the states is limited. This is a function that should be developed further since the collegial decisions of the NCE, as an intergovernmental organization, are probably more acceptable to state governments than those of the federal government or federal institutions, which can be resented as intrusive into state government jurisdiction (see Annex A Figure A 10 for sample recommendations and decisions of the NCE).

At state level

44. **The separation of the line ministry in charge of policy making and an executive agency in charge of policy implementation at federal level, has been replicated across the states, entailing the**

[36] Interview, Director Planning, Statistics and Research, Federal Ministry of Education, May 2015 "A case study of principal–agent dilemma: the Universal Basic Education Commission (UBEC)"

same set of challenges. In every state, the state legislature has established a State Universal Basic Education Board (SUBEB) and determined its structure and functions in accordance with the national legal framework[37]. Since SUBEB board members are appointed by the Governor, even though their appointment is to be confirmed by the state legislature, the relationship between SUBEB and the State Ministry of Education is also often problematic. In some states, the issue has been addressed by appointing the same official as commissioner for education and chairman of SUBEB. But in most cases, the SUBEB chairman is essentially accountable to the Governor and sidelines or overshadows the State Commissioner of Education.[38] This is a typical case of the agent superseding its principal.

At local level

45. **Within the states, basic education is deconcentrated (i.e. devolved to local administrative units and staff) but not effectively decentralized (i.e. devolved to local governments).** At the local government level, the governance framework of basic education rests in principle on participatory school-level management and school supervision by the state government through local administrative units (LGEAs). But local governments are not part of the institutional framework under the stipulations of the law and School-Based Management Committees (SBMCs) are not yet fully operational.

The deliberate marginalization of local governments

46. **Local governments do not play a more effective role in funding and managing primary education than they do in any other policy area and the constitutional debate remains open about the virtue of the principle of subsidiarity in primary education**. Under the Constitution, local governments are vested with the joint responsibility of primary education but the UBE Act transferred the role to the States though the establishment of SUBEB and LGEA as stated above.

The devolution of school supervision to administrative units: the LGEA

47. **In Local Government Areas, basic education is in effect managed by Local Government Education Authorities (LGEA), in which Local Government representatives are not statutorily invited to participate and which are formally exclusively accountable to SUBEB and the state government (LGEA secretaries being appointed by the governor).** LGEAs are deconcentrated (not decentralized)

[37] For example, although the procedure is similar in other states, in Edo state, for example, the law vests SUBEB with the following responsibilities: the supervision of school management; basic education budget and implementation planning; the "recruitment, appointment, promotion and discipline of teaching and non-teaching staff" as well as their training, posting and deployment; the "assessment and funding of salaries and allowances of teaching and non-teaching staff based on the existing salaries structure in the state"; disbursement of funds to primary and junior secondary schools "in accordance with the guidelines approved by the ministry of Education"; ensuring the equitable distribution of funds across schools by monitoring underlying school level data; and financial auditing.

[38] Interview with the Kogi state commissioner of Education, October 2014.

administrative units that replicate the participatory membership of SUBEB. LGEAs are neither accountable to the local government council nor to the state ministry of Education (they only liaise with its field office). But although this administrative structure entails significant costs since LGEAs employ close to 82 000 staff across the country (UBEC, 2012), it does not ensure effective oversight of public schools and leaves unattended private ones. For example, Annex A, Figure A 11 presents the institutional framework and its functionalities in the state of Katsina, which is very complex and designed to provide effective oversight.

School management

48. **Despite inflated state bureaucracies in the administration of basic education, school management oversight seems to focus more on compliance with procedures and fiduciary controls and processes rather than on performance and learning outcomes**. Officially, public schools are managed by school principals for junior secondary and head teachers for primary, in collaboration with the SBMCs and under the close supervision of LGEAs at local level, and at state level: SUBEB and the field offices of the state ministry of Education. The disarticulation[39] of junior secondary schools from secondary schools mandated by the UBE Act has introduced a seemingly unsurmountable challenge to the management of schools by scattering already scarce human and infrastructure resources and assets. This has also created a non-uninform school management system. For example, in 2010, it was observed that many states were yet to fully comply with the disarticulation directive, only a few states had fully disarticulated, many states had haphazardly disarticulated and a few states had even decided to start reintegrating, or rearticulating, junior and senior secondary schools. The NCE itself decided a reversal of the "disarticulation" policy.[40]

49. **Although the federal and state governments are promoting the integration of qur'anic schools into the national education system, their efforts do not seem commensurate to the need.** Around 9 million students are enrolled in Qur'anic and Islamic schools - 5 million in the North-West, 3 million in the North-East and over 1 million in the North-Central region (Annex A, Figure A 12). According to the 2013 survey, about 45 percent of Islamic schools are following the National Basic Education curriculum and half of them follow the curriculum established by the National board for Arabic and Islamic education. Under the National Almajiri Education program launched in 2009 to cater to Muslim nomadic children and mostly funded under the intervention fund managed by UBEC, Qur'anic and Islamic schools are provided with infrastructure facilities as well as instructional material. School management and supervision of schools funded under the program fall under the responsibility of the State Universal Basic Education Board (SUBEB) which employs school staff. The curriculum is aligned

[39] "One of the strategies for implementation of Universal Basic Education (UBE) program in Nigeria is the disarticulation of secondary schools, which entails the carving out of the three junior classes (JSS 1 to 3) in a secondary school to form a separate and independent school and the remaining senior classes (SS 1 to 3) to form another separate school. … National Executive Council of All Nigeria Conference of Principals of Secondary Schools (ANCOPSS), held at Abeokuta, Ogun, in 2010, it was confirmed that since 2004 when UBE Act became operational, many states were yet to fully comply with the disarticulation directive, few states had fully disarticulated, many states had haphazardly disarticulated, while some states are yet to commence the process" (Ige Akindele Matthew (2013), "Provision of secondary education in Nigeria: Challenges and way forward")

[40] Mathew, 2013 and Federal Ministry of Education, 2014

with the national basic education curriculum. But available funds are limited (to less than 3% of UBEC intervention fund, i.e. around US$15 million in 2014) and only few schools (around 125) have been built under the program. According to a recent survey, only few Islamic schools are granted public funding (2.6%), with the exception of Sokoto (20%). Most of them are funded by school fees, 40 percent by their proprietors and another 25 percent by religious institutions.[41]

Human resources management (HRM)

50. **In basic education, staff recruitment and deployment are managed at state level by SUBEBs and by their local branches; and by LGEAs at local level.** Most teachers are career civil servants; few are contract teachers which tend to be mostly employed and paid by Parents/Teachers Associations at school level. Recruitment and deployment are planned at state level based in principle on needs assessments collected at local level from LGEAs.

51. **Despite having established teachers' minimum qualification criteria in basic education at the national level, a large proportion of recruited teachers are unqualified, especially in north-western and north-eastern states[42].** In 2010, on average, 32 percent of teaching staff in pre-primary education were unqualified, 40 percent in primary education and 15 percent in junior secondary education (Figure 3). But these averages conceal wide variations across the states with northern states falling behind by a wide margin—probably because of a shortage of supply of staff given the north's comparatively higher demographic pressure (e.g. higher growth in school enrollment) and demand for teachers. Intra-state variations in the availability of qualified teachers are significant as well: for example, in Lagos, the proportion of qualified teachers in primary education varies between 63 and 99 percent across local areas[43]. But the concerns regarding the dearth of qualified candidates may be compounded by issues of political patronage. In 2011, the National Council on Education called for the "phasing out of unqualified teachers from the school system" but given the lack of clear understanding of underlying factors for the recruitment of unqualified teachers, solutions are yet to be identified. However, international experience offers useful guidance since shortages of qualified teachers is a common occurrence, and some African countries have successfully been able to provide required qualification and skills through in-service training[44] to unqualified teachers as a short term solution. This is a policy officially followed in Nigeria but it is not possible to assess its effectiveness given the lack of information.

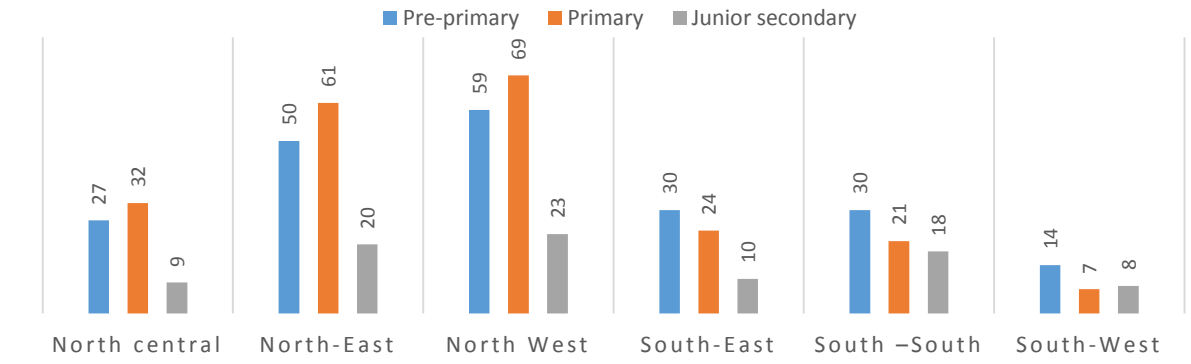
[41] CRID, 2013.

[42] The minimum qualification required nationally, i.e. the National Certificate in Education (NCE), is demanding: it is obtained after three years of schooling so that becoming a qualified teacher can be deemed to "require a significant investment of time and money" (Reboot, 2013).

[43] Lagos State Ministry of education, 2013.

[44] Mulken, 2010.

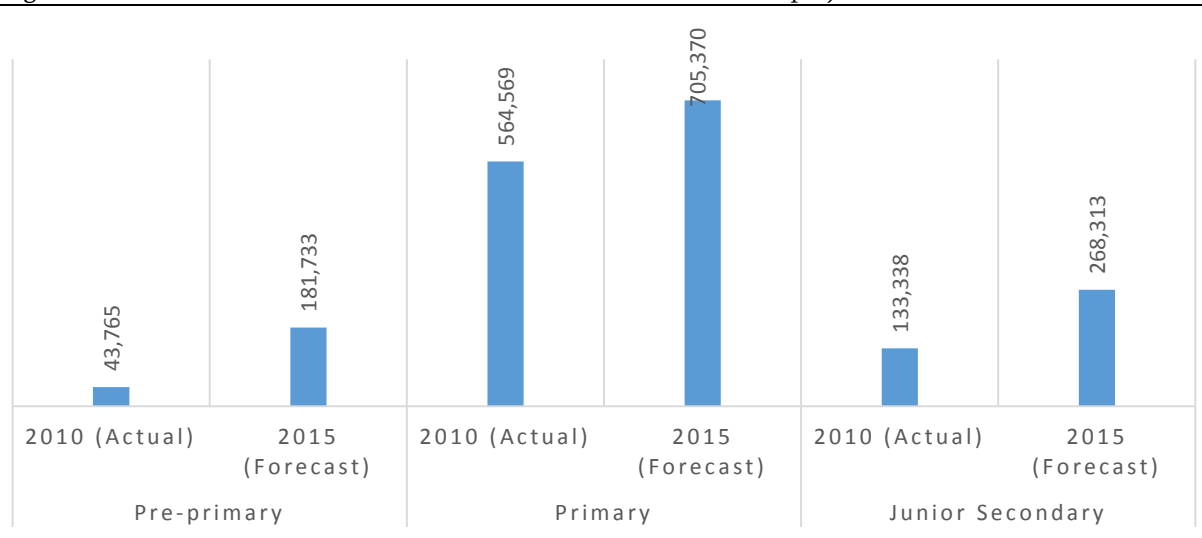
Figure 3: Proportion of unqualified teachers in basic education in 2010 (in %)



Source: UBEC 2012

52. **Overall, demographic growth trends highlight the need for massive and rapid recruitment of teachers.** The demographic pressure is such that on average the number of teachers should increase by nearly 10 percent a year (based on UBEC estimates) to cope with growth in student intake and stabilize the student/teacher ratio which is fast deteriorating: e.g. between 2003 and 2013. UBEC forecasts of the need for new teachers based on the observed rate of students' enrollment as well as on the student/teacher ratio benchmarks (35 STR in primary and 40 in junior secondary education) and the retirement rate, reveal an increase in the need for teachers of 25 percent and 100 percent increase between 2010 and 2015, in primary and junior secondary respectively (Figure 4). It is likely that this demographic pressure is the main underlying reason for the persistent recruitment of unqualified teachers, especially in the northern part of the country, but further investigation is needed to confirm this assumption.

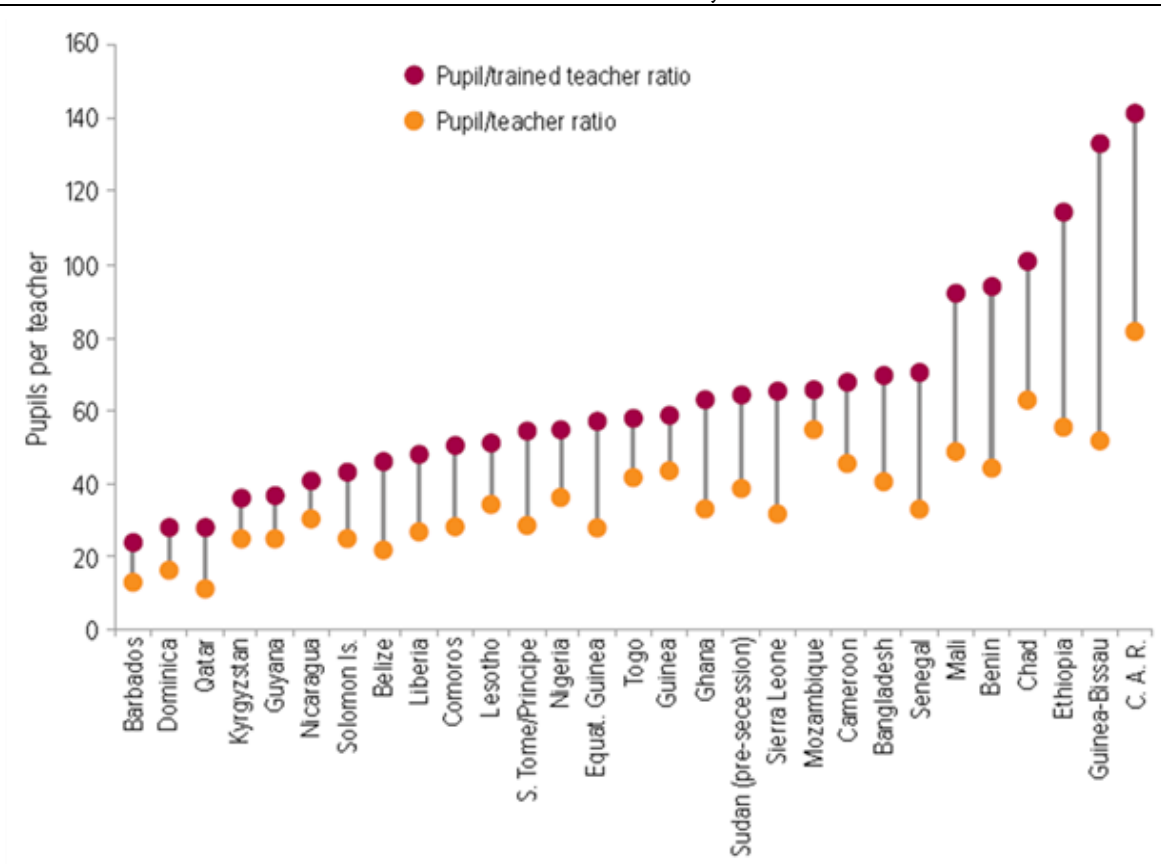
Figure 4: Teacher demand outlook in 2015 in basic education based on projected student enrollment



Source: UBEC, 2012

53. **The inadequacy of qualified teachers' recruitment to cater to universal basic education goals is reflected in the comparatively high student/qualified teacher ratio**. Nigeria ranks among the countries where the ratio of students per qualified differs the most from the ratio of students per teacher. In primary education, the average STR among African countries, stood at 36 in 2010, whereas the ratio of students per qualified teacher hovered at 60 in Nigeria, i.e. 66 percent higher than the average across African countries, But the national average in Nigeria conceals wide regional variations; the student/qualified teacher ratio varies from 28 in the northern state of Yobe to 94 in the south-western state of Oyo (Figure 5). In certain states though, a significant proportion of teachers are significantly more qualified than the minimum requirement: in Lagos state for instance, close to one-third of teachers in primary education and over 60 percent of teachers in junior secondary have a masters degree or a PhD.[45]

Figure 5: Student/teacher ratio and student/trained teacher ratio, primary education in countries where the student/trained teacher ratio exceeds the student/teacher ratio by at least 10:1, 2011



Source: UNESCO, 2015

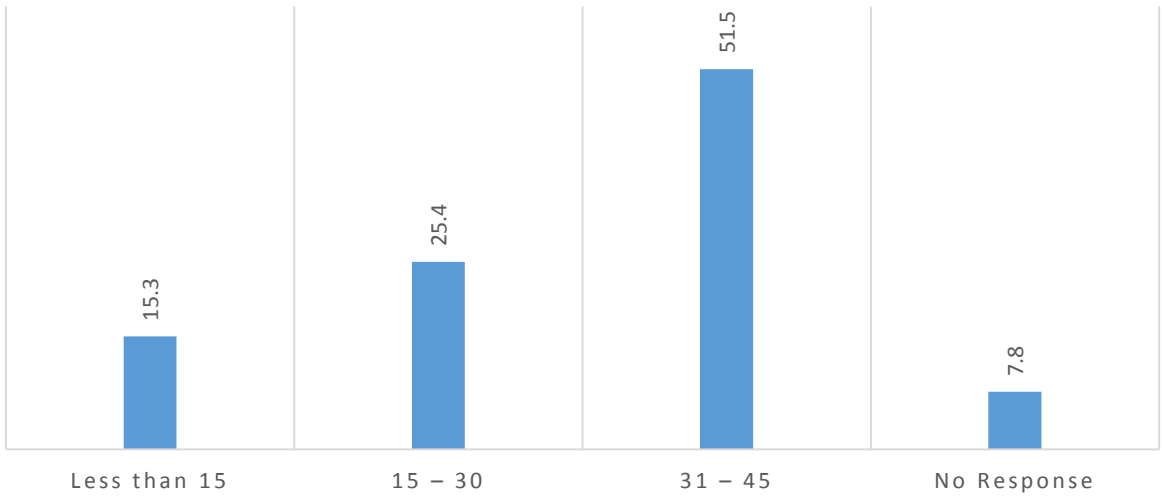
54. **Deployment of teachers in basic education is managed by SUBEB (based on needs assessment by LGEAs) but this administrative (and supposedly planned) deployment system does not ensure**

[45] Lagos State ministry of Education, 2013

adequate deployment in rural areas or of female teachers. Teachers are reluctant to be deployed to rural areas[46] and wide disparities in the gender balance of teachers' recruitment subsist across the states. The underrepresentation of female teachers in the northern states could be key in explaining the gender imbalance in girls' enrollment.[47] An equalization mechanism at the federal level does not exist to ensure adequate student/teacher ratios across the states except for the Federal Teachers' Scheme introduced in 2006 and under which several thousand qualified teachers have been hired by the federal government and posted as teaching interns across the states for two years in the expectation that they be recruited by state governments afterwards. The effectiveness of the scheme remains to be evaluated including by assessing the proportion of interns hired as tenured teachers by state governments.

55. **Although qualified teachers are scarce, they are also heavily underutilized.** According to a survey on learning achievements conducted in 2011 by UBEC, the teaching load carried by the majority [sic] (34.9%) of the teachers ranged between 11 and 20 lessons per week [i.e. between 8 and 11 hours]. Close to 25 percent of teachers "carried the lowest teaching load of between 1 and 10 lessons per week. Although the average length of a lesson ranged from 30 minutes to 60 minutes, it was 40 minutes in most of the schools. (…) 25.4 percent [of teachers also] indicated that they taught for between 15 and 30 weeks in a year (Figure 6). Increasing teacher utilization along the whole school year could help mitigate the dearth of qualified teachers.

Figure 6: Number of Weeks Taught in a Year (excluding revision and examination)



Source: UBEC, 2013

[46] This is probably because teachers see assignment in rural schools as a punishment "as teachers in rural areas often feel that both their schools and themselves have been forgotten [since] teachers in rural postings have been known to be left there for far longer that their required five years"(Reboot, 2013).

[47] For example, in primary education, the gender parity index varies from 0.1 in the northern state of Jigawa to 11.4 in the southern state of Anambra (with a national average of 0.89) whereas in junior secondary education, it varies between 0.20 in the northern state of Sokoto to 4.6 in Anambra (with a national average of 0.96) (UBEC, 2012).

Training and professional development

56. **Despite the high percentage of unqualified teachers at the start of their careers, teachers' professional development options are very limited.** Furthermore, newly recruited teachers are employed and deployed to classrooms without adequate formal orientation. Mentoring by school principals or senior teachers is not yet institutionalized. In general, Nigerian teachers are characterized by low skills and low rates of computer literacy, albeit with significant variations across the states. According to a UBE assessment of 2012, few states have introduced computer literacy programs for teachers despite the recommendation of the National Council of Education.

57. **In-service training is a relatively common practice, although not evenly distributed, but its effectiveness is uncertain due to the lack of teachers' skills assessment.** There are a number of training institutions for teachers such as Colleges of Education (for NCE holders) and University Faculties/Institutes of Education (for graduate teachers). These institutions have responded to the lack of qualified applicants by admitting candidates who do not qualify in theory, as it is the case of Colleges of education that admit non-NCE holders through a pre-NCE program. The National Teachers' Institute also provides distance learning for the NCE, post-graduate Diplomas in Education, and advanced diplomas in Guidance and Counseling, School Supervision, and Early Childhood Education. However, all recent assessments and studies (including Federal Ministry of Education, 2012, UBEC, 2013, and Reboot, 2013) revealed that such efforts are weak and ineffective.

58. **Career advancement for Nigerian teachers does not incentivize professional development**. Teachers' career advancement is ruled by a civil services servant promotion system, which is essentially based on seniority (with a standard promotion schedule of three to four years from one level to the next) with hardly any consideration of performance evaluation based on the individual Annual Performance Evaluation Report.[48] However, many teachers in Nigeria obtain advanced degrees, despite the lack of incentives to do so, both out of a sense of personal accomplishment and to expand their opportunities in pursuing other careers. But the major issue affecting teacher professional development is the mismatch between teaching qualifications and teacher skills and competencies.[49] In order to bridge that gap a few states have introduced a teachers competency assessment framework but the use of competency tests as a management tool has proved politically challenging and it would require keen commitment and willingness from leaders.

Teachers' teaching effectiveness

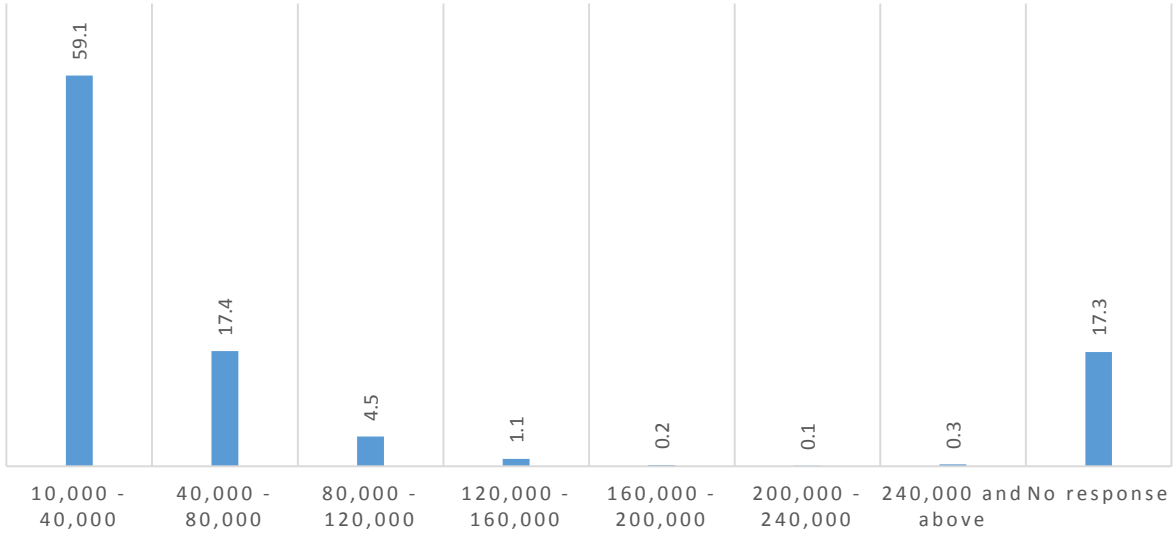
59. **Working conditions, such as the quality of school facilities and the availability of instructional materials, inevitably affect teaching performance.** Although the regular payment of teachers' salaries has been secured in basic education, two major hurdles to the effectiveness of teaching remain unresolved in basic education: the inadequacy of school facilities and the lack of instructional materials. The inadequacy of school facilities is reflected in the exceptionally high student/classroom ratio in

[48] Annual Performance Evaluation Report is neither part of the teacher's promotion formula nor does it include sanctions for low performance or rewards for good performance (Reboot, 2013).
[49] Federal Ministry of Education, 2012 and Reboot, 2013

junior secondary education. Classroom overcrowding is such that it should be deemed a major impediment to teaching effectiveness and a probable cause of teachers' resentment for their working conditions. Teachers are also faced with other significant challenges such as the lack of adequate instructional material. For example, the UBEC 2013 survey shows that about 28 percent of teachers complain about lack of appropriate textbooks or of other instructional material followed by 16 percent who decry the inadequacy of classrooms and furniture.

60. Teachers' wage and allowance structure (teachers' salary allowance amounts to 27.5% of their base salary) is fixed at the federal level and applied by state governments to the extent allowed by their budget resources. The wage scale allows for significant wage increases along a teacher's career with senior teachers earning five times as much as the entry level salary (Figure 7). Although most teachers express dissatisfaction about their remuneration, they enjoy the security of a tenured job which is a rare privilege in Nigeria and their salary is on average at par with that of other state employees at comparable grade.[50]

Figure 7: Range of teachers' monthly salary in primary education in 2011 (in percent of teachers)



Source: UBEC, 2013

Social accountability and mobilization

Social demand for education

61. **There is a remarkably high level of popular demand for education in Nigeria. But the demand remains in part unmet since only 15 percent of respondents (between 10% and 17% across geo-political zones) thought that the issue had been adequately addressed by elected officials.** According to a recent

[50] Federal Republic of Nigeria, 2005, Bruns, 2011.

poll, on the eve of the March 2015 national election, two thirds of respondents mentioned education as "the most pressing national issue politicians should focus on addressing," a far higher proportion than any other issue (Annex A, Figure A 13). Notably, this proportion was significantly higher in Northern states than in the South. Unmet expectations in this regard may have impacted voting behavior. In any event, such high level of demand for education is a potent lever for education reforms, which the UBE Act aims at mobilizing for school improvement.

Institutionalization of social accountability

62. **The institutional framework for basic education makes space for civil society participation at each tier of government.** At the federal level, representatives of the National PTA of Nigeria and of Women Groups or societies are among the board members of UBEC. At the state level, representatives of Parents/Teachers Associations and of women groups are statutorily members of each SUBEB, with a Director of Social Mobilization to promote and oversee the establishment and functioning of SBMCs. At the local level, a representative of a women's group and of local PTA as well as traditional rulers or district heads are statutorily part of LGEAs. At the school level, the representation of local communities is also institutionalized thanks to the establishment of SBMCs and PTA.

63. **In 2005, the National Council of Education decided that a SBMC should be established in every primary and secondary school across the country; since then the agenda has been supported by UBEC and the federal Ministry of Education.** In 2011, UBEC issued guidelines to frame the organization, role and activities of the SBMCs. Subsequently, most states issued policy and guidelines with UBEC and donor support, including from DFID under the ESSPIN program. As of 2012 the federal ministry of Education estimated that SBMCs were functional in only 40 percent of primary schools. In 2013, the National Council of Education pursued its policy thrust by mandating the Federal Ministry of Education and state governments to "direct Head-Teachers and Principals to constitute functional School-Based Management Committees (SBMC) in their schools." Since then, UBEC has provided guidance and financial and logistical support to ensure the mainstreaming of SBMCs across the country. It has revised its guidelines for the development of SBMCs to allow for flexible implementation at state level and provides training to state officials, including SUBEB directors of social mobilization. The FMOE is also preparing a policy framework on school-based management.

64. **SBMCs are the main institutionalized social accountability mechanism in basic education at school level.** As such they supersede PTA with which they still co-exist and compete to some extent, especially regarding the mobilization of financial resources from the community. Long before the establishment of SBMCs, PTAs were created and structured in a National association (National Association of PTAs, NAPTA), and had the monopoly of the representation of beneficiaries in the school system along with the role of raising financial resources from school communities. When established, SBMCs often seem to reflect strong mobilization of parents and communities despite their limited effectiveness on school management and improvement.

Functions and effectiveness of School Based Management Committees (SBMCs)

65. **Even though SBMCs have arguably generated a significant level of community mobilization, they only have a limited and incipient leverage on school management and education outcomes so far and need to be further operationalized**. Where they are functioning, SBMCs prove to be an effective opportunity for enhanced women's participation as well as for the participation of school children. They also prove instrumental in raising the awareness of the community and community leaders about basic education with tangible results. SBMCs are addressing social exclusion and children welfare to promote student enrollment and attendance. They also exercise social control over teachers' discipline. Nevertheless, the recent study by DFID calls for close monitoring by highlighting two concerns: (i) a risk that SBMCs might become elitist and exclusive institutions, which only represent the voice of the few, and (ii) for inevitable confrontation with the asymmetry of social capital between local communities and teachers which is a generic challenge in developing countries for effective social accountability, especially in rural and poor environments. In order to effectively exercise their responsibility, SBMCs have yet to be provided with simple monitoring tools to allow them to convey their feedbacks in a standardized manner so as to allow for statistical aggregation and benchmarking. Simple templates for monitoring teachers' and students' attendance are being elaborated and piloted under donor support with the expectation that SBMC reporting will be publicly disclosed on the state government open data portal.[51]

66. **The institutionalization of SBMCs introduces an inevitable tension with the conventional and bureaucratic mode of management of public schools and can only be effective if other accountability mechanisms are also strengthened and effectively mobilized.** For instance, effective monitoring of teachers' attendance by SBMCs requires that delinquent teachers be sanctioned by the school management; revenue mobilization within the community cannot substitute for public funding; school development planning would remain meaningless without adequate funding; and oversight of education outcomes (such as learning achievements) calls for a robust quality assurance framework including by LGEAs and school inspectorates. But on the other hand, SBMCs can potentially help strengthen top-down accountability mechanisms, including fiduciary controls on funds use and supply and maintenance of school facilities, teacher discipline, etc. Feedback from SBMCs can help state authorities corroborate administrative data and better plan: investment (build additional classrooms, rehabilitate existing ones, provide water, electricity or toilet facilities, etc.), personnel deployment (when the ratio of students per teachers exceeds the norm) and professional development and other kinds of school improvement (security, waste collection, etc.). International experience, however, proves that participatory school based management is not a recipe for immediate results but takes years to deliver on the promise of school improvement and even longer to result in higher learning achievements (Box 3 shows a comparison of Nigeria SBMCs functions with other international experiences).[52]

[51] World Bank., 2015(a)

[52] Recommendations from a recent DFID study also reinforce close monitoring of SBMCs "To be successful, SBMCs would have to overcome two significant political economy challenges for the effectiveness of social accountability mechanisms: 1) teachers' accountability to students and parents needs to be supported by strong upstream accountability as shows the fact that in most African countries only a small proportion of absenteeism is categorized as non-authorized; 2) decentralization and social accountability mechanisms can remain ineffective

Box 3: Functions of School-Based Management Committees across Nigeria in a comparative perspective	
Typical international attributed functions to SBMC	Attributed functions to SBMCs in Nigeria
Community mobilization	Sensitizing the community on enrollment; making sure that all school-age children are in school (Edo state, 2015), including girls and disabled children; enhancing effective participation and inclusion of children and women; supporting students with special needs; mobilizing funds for the infrastructural development of the school to complement government efforts (Edo state, 2015);
School management	Ensuring transparency in school management by regularly engaging with and reporting to local communities (Edo state, 2015); assisting the school principal in drafting an annual report (progress and financial)
Allocating budgetary resources	No
Approving annual budgets (including the development budget) and examining monthly financial statements	Approving spending plans, ensuring effective utilization of school resources on planned projects and activities and monitor such use; supporting the school authorities in keeping proper financial records; ensuring financial information is posted on the school notice board; ensuring that school has a bank account with appropriate signatories and compliance with financial rules and schedules laid down by government as to the functioning of school accounts
Monitoring school performance	Quality assurance of activity implementation; monitoring the distribution and utilization of teaching and learning materials (Katsina state, 2012); monitoring school to ensure increased enrollment, retention and completion and transition of students especially girls to Junior and Secondary schools (idem); regular inspection and supervision of the state of infrastructure and materials adequacy in schools (Oyo state, 2012)
Developing curriculum	No
Procuring textbooks and other education materials	No
Improving infrastructure and developing school improvement plans	Drafting of school development plan; report back to the larger community on the utilization of funds for school development
Hiring and firing teachers and other school staff	No
Monitoring and evaluating teacher performance and student learning outcomes	Help evaluate the teaching and learning processes; monitoring of students' and teachers' attendance and performance (Katsina state, 2012); periodic assessment of the performance of head teachers in the management of their schools (Oyo state, 2012)
Source: the list of functions is drawn from Bruns & alii, 2011; UBEC, 2011; Edo state, 2015; Katsina state, 2012; Oyo state, 2012)	

as a result of elite or political capture and lack of community's/parents' information, social capital and awareness" (DFID, 2014).

Quality assurance, monitoring and evaluation (M&E)

Quality assurance

67. **Quality assurance in Nigeria exemplifies the lack of functional integration of the institutional framework of basic education.** Sound quality assurance requires coordinated exercises by a broad range of public institutions, line ministries (through their inspectorate) and executive agencies (UBECs, SUBEBs and LGEAs). For example, the U.S. Agency for International Development (USAID) sketched a map for quality assurance in basic education as part of the Education sector mapping study conducted in 2013, based on six selected states and a number of key challenges.[53] It explored the following elements of the quality assurance system: monitoring, enforcement and compliance of quality standards (sector inputs); evaluation of performance of learner and teachers (sector outcomes); project implementation monitoring (infrastructure projects); and financial audit processes. To improve the quality assurance efforts and for better coordination in basic education, UBEC has effectively taken over quality assurance from the Federal Ministry of Education in 2012. Coordination, however, seemed to be harder as there is little joint data collection efforts between UBEC and LGEAs at local level or SUBEBs at state level, nor does UBEC appropriately communicate its findings with the LGEAs and SUBEBs or SBMCs. In addition, the UBEC quality assurance report focused only on policy making instead of covering a range of critical quality assurance dimensions.

M&E institutional framework

68. **M&E is a shared responsibility of the federal and state governments.** Under the UBE Act, UBEC is vested with the responsibility of monitoring "federal inputs into the implementation of basic education" and report through the Minister of Education to the President on progress on the implementation of UBE. It is mandated to carry out "a personal audit of teaching and non-teaching staff of all basic education institutions in Nigeria" and "establish a basic education data bank and conduct research on basic education in Nigeria." At the state level, the same M&E functions are vested with SUBEB and at local level with LGEAs as well as SBMCs at school level. State ministries of Education also monitor school and teacher performance through their inspectorate. However although, the NEMIS is decentralized at state level and assigns to state governments the responsibility of data collection to inform the national school census, due to lack of funding, capacity and adequate planning, UBEC has not been able to conduct any national school census since 2010 as it is supposed to do every three years. The updating of the national school census also seems to be hindered by conflicting views on its scope and methodology between UBEC and the FMOE which aims at capturing all school facilities including unregistered ones to better assess the number of out-of-school children.[54]

69. **Also, the limited tracking survey of the MDGs, led by the Special Assistant to the President for the MDGs, shows a wide margin of inconsistency with the** National Demographic and Health Survey

[53] The scope was further refined to focus only on the four subsector service areas of curriculum delivery, teacher management, quality assurance, and infrastructure and capital investment based on sample surveys from Katsina, Gobme, Nasarawa, Ekiti, Imo and Cross River (USAID, 2014)

[54] Interview with the director Planning, Research and Development, Federal ministry of Education, May 2015

(NDHS). The Nigerian government performance assessment, conducted by the National Planning Commission, has also been interrupted since 2012 until the validity of data provided by line departments and parastatals is ascertained, given the level of perceived inaccuracies by the government itself.[55]

70. **Although a wealth of information is gathered by public authorities on basic education, M&E systems in Nigeria suffer from four major shortcomings that prevent them from adequately informing policy making and dialogue:** 1) lack of adequate funding and institutional capacity for a functional NEMIS; 2) the poor quality of administrative data; 3) collected information does not cover the whole result/delivery chain and 4) information disclosure remains narrowly limited. This calls for the collection of better quality data so that adequate evidence can be provided to policy makers.

71. **There is no validated consolidated information on public expenditure allocated to and effectively spent on basic education in Nigeria, which prevents an informed evaluation of financial resource mobilization.** Information previously provided by the Central Bank of Nigeria is based on a survey and not on the consolidation of certified budget execution reports (CBN, 2013). Consolidated budget information would require the harmonization of charts of accounts used across levels of government, the functional reclassification of budget expenditure and systematic and audited reporting on budget execution. For lack of such standardized budget information, it is practically impossible to assess the effectiveness of financial resources allocation in basic education.

72. **On human resources mobilization, UBECs, SUBEBs and LGEAs are legally mandated to conduct personnel audits of teaching and non-teaching staff in basic education.** The last national audit dates back to 2010 by UBEC. It provides limited information on the workforce: head counts, seniority, gender and spatial (urban/rural) distribution, teachers' qualifications (including computer literacy), distribution between teaching and non-teaching staff at school level (close to 11% of the total workforce in basic education was non-teaching). The audit covers only public schools, and it does not collect enough information to adequately assess teachers' performance, drawing, therefore, only limited recommendations for Human Resource management. Although it concludes that "the morale amongst teachers in many schools is low due to the basic conditions of service such as the work environment, and low salaries, lack of regular promotions, etc.," it does not provide information on some of these critical parameters (such as salary and promotion).

73. **The national school census, which is supposed to be conducted under the NEMIS, should provide additional information (disaggregated at Local Government Area level) including on the proportion of teachers on long leave of absence (maternity, sick leave, training).** But it will still not collect critical information in a number of areas, including, teachers' performance such as teachers' absenteeism or the availability of teaching resources and teachers' working conditions—issues which weigh heavily on educational (learning) outcomes, and even though surveys highlight the magnitude of challenges to be addressed on these dimensions and the need that they be adequately captured for effective monitoring of the delivery of basic education.[56] Only consolidation of information gathered through school inspection and supervision, including on teachers' effective attendance, could allow the NEMIS to effectively capture the whole range of critical input, output and outcome indicators,

[55] Interview with the director Monitoring and Evaluation, National Planning Commission, March 2015.
[56] World Bank, 2014(a)

qualitative and quantitative, at the adequate level of disaggregation, which are critical to assess the performance of basic education. Box 4 below summarizes key collated data and missing information in the services delivery value chain (input-output-outcome).

Box 4: M&E in Nigeria: collected data and missing information

Inputs	Outputs	Outcomes
❖ **School census** is supposed to capture the following information (but the last national school census dates back to 2005 and since then only a few state school censuses have been conducted): - Infrastructure: number of public, private and religious schools; number of classrooms; state of infrastructure (classroom condition); students/classroom ratio; availability of drinkable water, toilets - Enrollment by sex and school category - Teacher census ❖ **The National Personnel audit** (2010) contains some information about teachers qualification: - Non-teaching/teaching personnel ratio at school level - Staff qualification (including computer literacy) and seniority - Gender parity ❖ **• A National Household survey** (2010) highlights constraints on the demand side: - Physical access to school (distance) - Students nutritional status - Household schooling expenditure - Students absenteeism **But comprehensive and updated information on financial inputs are missing**: - Consolidated and disaggregated budget data; - Tracking fund flows - Per capita spending - Teachers' salary & benefits	❖ **School census** provide some information on education output such as teacher/students or classroom/students ratio ❖ **The National household survey** captures quantitative and qualitative outputs such as - students attendance and its underlying factors - repetition and dropout rates - students' literacy/numeracy - perceived school quality and value of schooling (idem) ❖ **But no official information is available about critical qualitative outputs such as**: - teachers' training and skills enhancement, - average core subject-teacher ratio, - teacher development need, - teacher absenteeism from schools or classroom (and underlying reasons) - teachers' actual teaching time - teacher assessment scores (math. & English) - availability of educational material/equipment (textbooks, computers) to teachers and students - students' retention rate in primary and secondary	❖ **School inspection & supervision** do not provide consolidated information on staff and school performance assessment ❖ **MDG achievement tracking report (2015)** captures but inadequately on: - Enrollment rate - Gender equity ratio ❖ **School census** captures literacy and numeracy among children aged 5 to 16 **But no standardized test exam captures learning levels** at end of basic education. Junior Secondary School Certificate (JSSC) is not mandatory or standardized

Source: Authors' assessment of M&E system of Nigeria

74. **There is no standardized and institutionalized tracking of learning achievement during basic education cycle**. This prevents a harmonized evaluation of learning levels achieved through basic education across the country. Contrary to other west African countries such as Ghana or Sierra Leone, the Junior Secondary School Certificate (JSSC) in not mandatory or standardized across Nigeria. The

only mandatory and standardized exam is the Senior Secondary Certificate Examination (SSCE), which students pass after grade 12, i.e. at least four years after moving on from basic education. Systematic assessment of students' literacy and numeracy is also missing and donors are piloting third party ("citizen-led") assessments of students' basic learning skills under the Annual Status of Education Report (ASER) methodology used in other African countries to substitute for the lack of official information.

75. **Donors conducted a wealth of surveys to assess the effectiveness of their interventions in basic education (in particular under the ESSPIN program) and introduced third party monitoring of students' learning skills under the Every Nigerian Child Project.** Once the school-level monitoring function of SBMCs is fully operationalized, it could potentially provide a wealth of at least partly independently gathered information on a wide array of input and output indicators pertaining to school performance.

V. Overview of education finance and framework of finance in basic education

76. **The education sector in Nigeria is managed concurrently by the three tiers of public administration: federal, state and local government**, as prescribed under the 1999 constitution[57]. As such, all levels of government have legislative jurisdiction and corresponding functional responsibilities with respect to the provision of education, although the division of responsibilities has not always been clearly laid out. The federal or state governments have sole responsibilities in some areas, although, for the most part, responsibilities are shared by the three levels of government[58]. Thus, no single tier of government has an absolute responsibility for any education sub-sector; rather there are varying degrees of overlap. Both the federal and the state governments finance and manage their own tertiary institutions: universities, polytechnics and teacher training colleges. At the secondary level, there are Federal Government Colleges, spread across the 36 states (about 104 as of 2013). All other public secondary schools are managed and financed by state governments, through the state ministries of education.

77. The management of the primary level of education has gone through several phases over the years. Given that primary education is a key policy area, the federal government has been directly or indirectly intervening in the management and financial responsibilities of the sub-sector. There have been continual changes to the management framework ever since 1993, with the aim of strengthening basic education provision, but unfortunately the country has been unable to find a suitable system that satisfies the constitutional mandate and produces the desired outcome of the basic education. In fact, there is no formal or consistent budget framework for basic education and as such, the formal budget planning, preparation, allocation and execution process does not apply to the sector. With this in mind, the main objective of this section is to lay out how basic education is financed in the absence of a formal budget framework and provide an estimate for the whole sector as well as the basic education sub-sector. This section also provides the necessary background to understand how the current financing structure affects equity, efficiency, affordability, and quality — analyses of each of these issues are explored in the next chapter. This section attempts to answer the following questions:

a. How much does Nigeria spend on education and how does it compare to other countries?
b. Who is responsible for the financing of basic education and how has this structure evolved?
c. What are the sources of public finance for basic education?
d. What are the implications of the UBE Act of 2004 on the LGA's budget?
e. What are the variations in public spending on education by state?

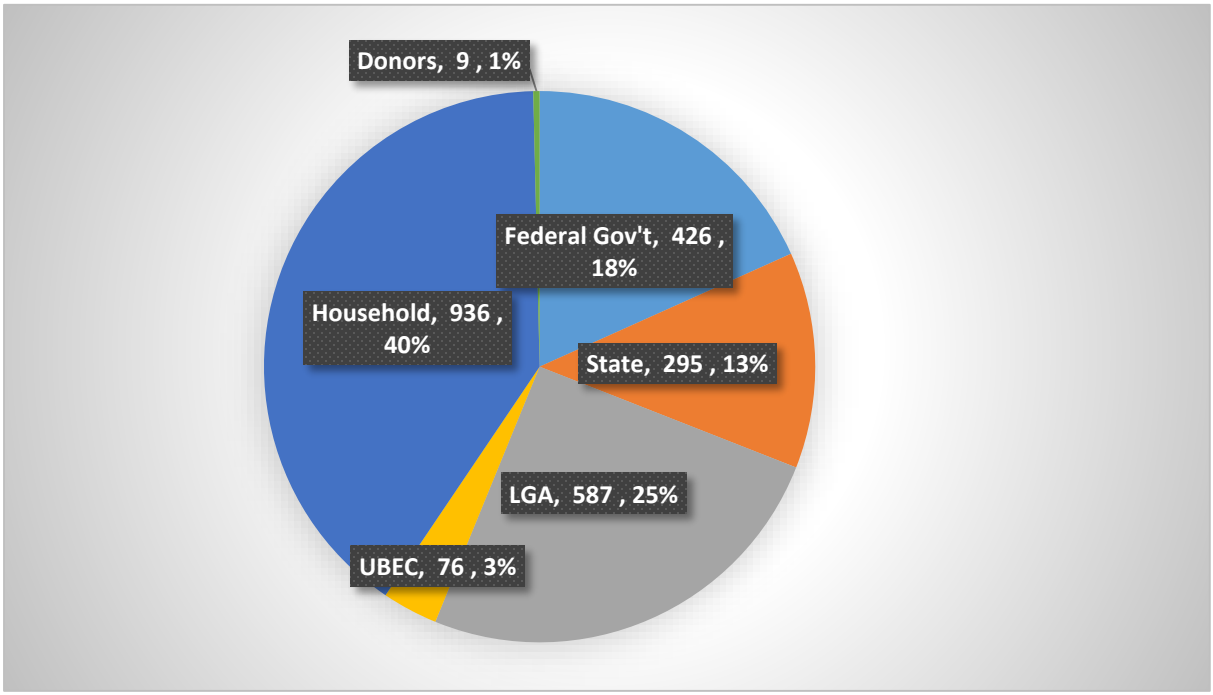
[57] There have been several constitutions in Nigeria since independence in 1960, including one in 1993 which was not fully enacted and is therefore not referred to. The 1999 Constitution is still in effect today.
[58] Orbach, 2003.

Overview of education sector finance in Nigeria

78. **The public education finance system in Nigeria is characterized by an amalgam of concurrent and autonomous responsibilities shared across the federal, state and local governments**, as laid out under the constitution and the relevant legislative framework. The overlap in the major financial responsibility between the three tiers of government (federal, state and local) makes it difficult to estimate the total amount of public expenditure and assess its impact on education sector outcomes. The lack of information on education expenditure both at the national level and for the individual states has several other implications. For instance, there is little basis on which to assess issues such as: (i) whether the financial effort in this sector has been increasing or decreasing in terms of real expenditures or as a share of public expenditures or even as a share of national income; (ii) the level and importance of vertical and horizontal imbalances in public spending and how they affect the education sector, and the levels of efficiency and equity of public expenditures in the sector which would provide a quantitative basis for arguments in favor of expanding or re-allocating expenditures; (iii) the future public expenditure requirements, at the national level or by state, based on enrollment pressures in the system; (iv) unit costs of each level of education across states or of different levels within states; (v) the household education expenditures at both public and private educational institutions, and the reliance on these at different levels of education and in different states. Finally, it is not possible to compare the levels and patterns of education expenditures in Nigeria with those in other countries. This section attempts to provide answers to some of these questions using a mix of household surveys and administrative data.

79. **40 percent of the education sector in the Nigeria is funded by private households' out of pocket contributions while local government constitutes the second highest share (25 percent).** Figure 8 presents the sources of finance by origin. State and local governments enjoy a considerable degree of political and fiscal autonomy. State governments run separate fiscal and budgetary systems, independent of the federal funds. Although they receive significant funding from the Federation Account, state and local governments are not required to inform or seek approval from the federal government on their budget, fiscal performance, or allocation of resources in line with their spending priorities. No national framework encompasses budgets at all tiers. No statutory accountability mechanisms ensure proper coordination of state plans and fiscal arrangements to achieve national goals in any sector (World Bank 2003). With respect to budget reporting arrangements, each government carries out its own reporting with no coordination, standards for reporting on plans and performance, or reporting to the federal government. Overall, in 2013, the total cost of the education sector (all levels of education) in Nigeria amounted to 2,329.4 billion Naira (14.6 billion USD). The breakdown of the education sector finance was as follows: federal government (18 percent), state government (13 percent), LGA (25 percent), household out-of-pocket payment (40 percent), UBEC initiative (3 percent), and donors: the remaining 0.4 percent.

Figure 8: Sources of education sector finance, 2013

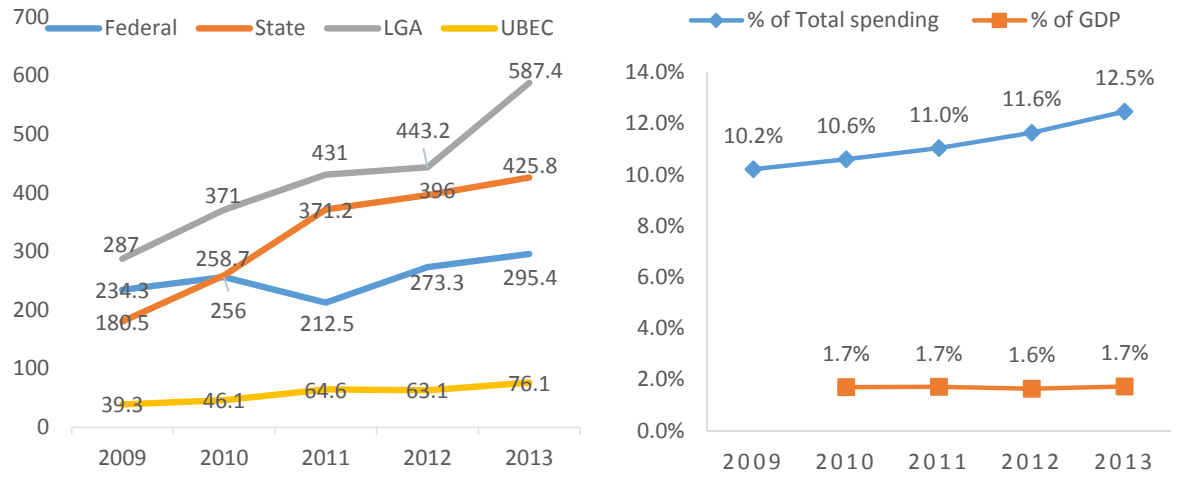


Source: Authors' estimate from CBN, OECD, Nigeria, State Budget, Federal Government Budget, and General Household Survey Panel 2012/13.

80. **Although the burden of management of the education sector has gradually shifted away from the LGA, the largest part of public sector finance is still supported by the LGA budget.** The LGA is technically responsible for salary payments of basic education teachers and the high spending share of LGAs is mainly due to the high share of teachers mapped to basic schools; for example in 2012, more than 85 percent of general education teachers were assigned to basic schools. Moreover about 80 percent of education spending in Nigeria is recurrent (79 percent in 2012 and 80 percent in 2013) and about 90 of the recurrent spending is channeled to personnel costs.

81. **Total public spending in education increased in absolute terms between 2009 and 2013, especially at the state and LGA levels, but has stagnated as a share of GDP.** Figure 9 shows trends in spending by the three tiers of government and UBEC (panel a) and total education spending as a percentage of GDP and as a share of total public spending (panel b). Although trends in education funding from all sources are increasing in absolute terms, it has not been increasing as share of GDP—the latter has hovered around 1.7 percent for the past 4 years. In parallel, the share of education spending as a share of total spending marginally increased from 10.2 percent to 12.5 percent over the 2009-2013 period. This stagnation in terms of share of GDP and total public spending reflects, to a large degree, the lack of prioritization of human capital development in Nigeria, despite favorable macroeconomic conditions. This lack of prioritization has contributed to some degree to the propagation of conflicts, decline in educational performances and growth in inequalities.

Figure 9: Trends of public spending on education (billions of Naira) (left) and as a share of GDP and total consolidated expenditure (%) (right)

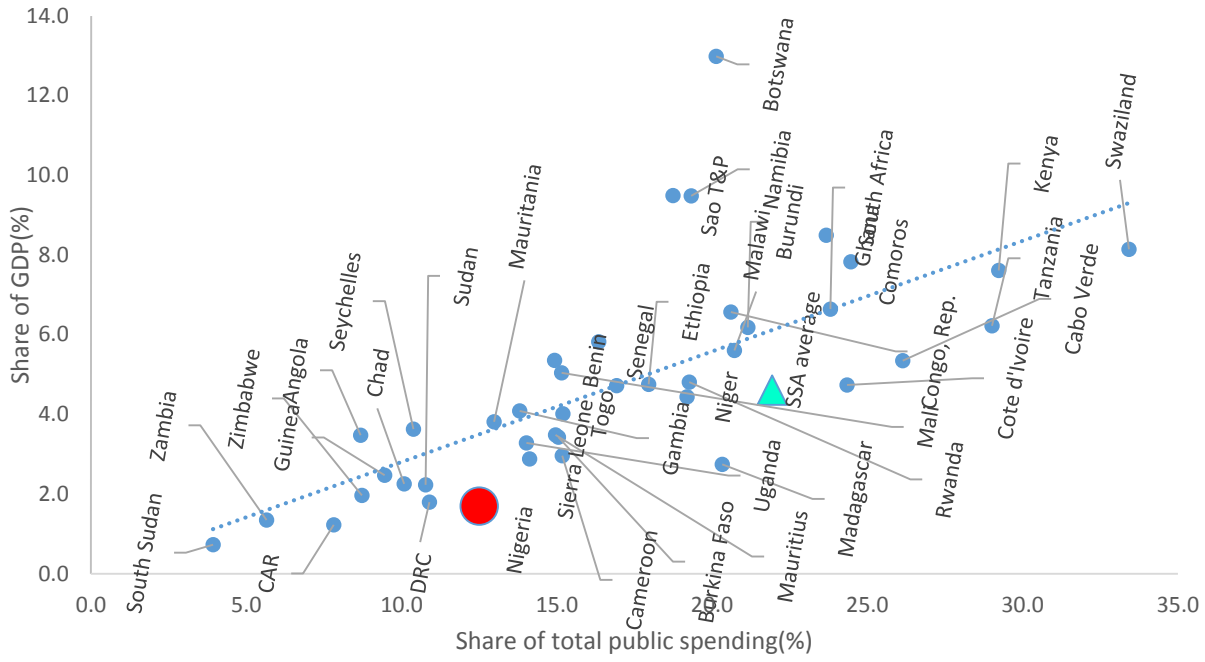


Source: Authors' estimate from CBN, OECD, Nigeria, State Budget, Federal Government Budget, and General Household Survey Panel 2012/13 and GDP and total spending figures from IMF

82. **International comparison shows that Nigeria's spending on education as a share of GDP, is much lower than the SSA average and below the recommended levels.** Figure 10 shows the public education expenditure as a share of GDP and as a share of total public expenditure for 41 SSA countries. With education spending equivalent to 1.7 percent of GDP, Nigeria is the fourth lowest among 41 SSA countries[59], and its spending is lower than the benchmark target set in the GPE's Education Sector Plan 2010-20, lower than the GPE recommendation of 4.1 percent and lower than the SSA average of 4.6 percent. As indicated earlier, public education expenditures as a share of total expenditures is 12.5 percent, which is also below the comparison countries as well as the SSA average of 17 percent. Again this figure is much below GPE's recommended good practice benchmark for developing countries, which was set at 20 percent of total public spending. Given the lags identified in the education sector performance earlier in this report, it clearly demonstrates that the budget allocation for the education sector is insufficient to truly reform the education sector and meet the country's human capital needs.

[59] These 41 countries were selected based on availability of data.

Figure 10: Comparison of public expenditure on education as share of GDP and total public spending for select countries (percent)



Source: Authors' estimate from CBN, OECD, Nigeria, State Budget, Federal Government Budget, and General Household Survey Panel 2010/11 and 2012/13 for Nigeria and WDI for comparison countries

Framework of basic education finance

83. **Strategic channeling of public funds to the education sector is a key component in addressing the sector issues outlined above.** As described earlier, the government has passed several legislative reforms focusing on improving basic education outcomes. For example, since the establishment of the concurrent and exclusive responsibilities regarding the administration and financing of the education sector in 1979, basic education has undergone six subsequent policy changes regarding the financial management of the sub-sector. Figure 11 summarizes, in the form of a timeline, the key decrees and other laws concerning the funding and management of primary education, including the latest developments in the disarticulation and re-articulation of the junior secondary system. Most of the changes before 2004 that is before the UBE Act, tend to apply to primary education, particular primary teachers' salaries, while the concept of basic education is discussed in the two most recent changes. The following are key observations:

i. Public basic education financing depends mostly on federal funds although management responsibilities are shared between the state, federal, and LGA tiers of government. The preponderant federal role is clear when one considers that salaries usually account for more than 80 percent of total spending in the sub-sector, and that salary payment is sourced direct through statutory transfers from the federal government to the LGA accounts. The following section provides a detailed analysis and breakdown by state of how federal resources finance basic education.

ii. The issue of basic education management is still not resolved. The UBE Act of 2004 calls for the disarticulation of junior secondary from senior secondary schools, one of the Act's key mandates and a main reason for the creation of the UBE Commission. This process is creating tension and confusion, in part because the UBE law has been ratified in each state with modifications, which means that the implementation of the policy is not uniform across the states. Some states have chosen to physically combine their primary and junior secondary schools by building onto existing primary schools, while others have not. However, although no legislation has been passed, the re-articulation process is under way in some states for those who already initiated disarticulations. It should be noted that some states did not commerce the process at all.[60] While the key benefits of the disarticulation were clearly defined from the policy prospective, the financial implications of carrying out this process is one of the key reasons for the failure of its implementation. In particular, the fact that the UBEC matching fund is specifically tied to each education level according to a specific allocation formula (5% to ECD, 60% to primary and 30% of junior secondary), has created confusion in the financial management of the fund flow to junior secondary education. Unfortunately, as the disarticulation and re-articulation process takes place state by state and within states: school by school, or LGA by LGA, it is impossible to estimate the number of disarticulated or re-articulated states. There are also other obstacles to the re-articulation process in some states. For example, Edo has already created a separate ministry for basic education. All this means that the re-articulation process is posing a challenge and contributes to the lack of a uniform basic education management system in Nigeria.

iii. The fact that the UBE law has not been fully implemented, and therefore is not effective, including in its free education mandate, has placed an unfair onus on parents who are still expected to enforce the UBE requirements on their end. Hence, the concept of free and compulsory basic education is in fact not a reality.

[60] "One of the strategies for implementation of Universal Basic Education (UBE) program in Nigeria is the disarticulation of secondary schools, which entails the carving out of the three junior classes (JSS 1 to 3) in a secondary school to form a separate and independent school and the remaining senior classes (SS 1 to 3) to form another separate school. … National Executive Council of All Nigeria Conference of Principals of Secondary Schools (ANCOPSS), held at Abeokuta, Ogun, in 2010, it was confirmed that since 2004 when UBE Act became operational, many states were yet to fully comply with the disarticulation directive, few states had fully disarticulated, many states had haphazardly disarticulated, while some states are yet to commence the process" (Ige Akindele Matthew (2013), "Provision of secondary education in Nigeria: Challenges and way forward")

Figure 11: Evolution of basic education sub-sector management	
1979-1988	➢Decree of 1976 mandated LGA to carry out primary school management ➢1979 constitution defined the education concurrent responsibilities ➢Southern states LGA and states took dual responsibilities to pay teachers' salaries ➢Northern states LGA fully responsible with state close supervision
1988-1991	➢Salary of primary teachers uniformly paid from federation account before allocations ➢Salary payment was managed by national primary education commission at the center and Primary School management board (PSMB) at state level to facilitate salary channels to LGEA ➢PSMBs took supervision responsibilities while National Primary Education Commission (NPEC) monitored, taking responsibility away from LGEA
1991-1993	1991 decree gave full responsibility of primary education to LGA
1993-2002	➢1999 constitution reaffirmed primary education as responsibility of LGA ➢In decree 96 of 1993 restored a system of 1988 ➢Teachers strike due to unpaid salaries ➢UBEC replaced NPEC ➢Lower secondary proposed to be part of basic education
2002-2004	➢In April 2002 supreme court ruled federal intervention at primary level as unconstitutional ➢Led to UBE withdrawal of UBE bill from House of Representatives ➢LGA assumed responsibility for primary education fund
2004-present	➢UBE bill passed and delivered free and compulsory basic education (grade 1-9) ➢ Disarticulation of JSS from secondary schools declared ➢Financial responsibility of LGA increased from primary to basic education ➢Teachers' salary paid from state ministry of local government account created at state level
2010*	➢ In 2010 a review meeting was conducted on the status of disarticulation process ➢ Review revealed that some states had fully disarticulated, others were in progress and some had never started ➢ The meeting highlighted that disarticulation cost was high and not affordable across all states ➢ The meeting suggested re-articulation but no formal law has been created to that effect ➢ Following this meeting disarticulated states initiated re-articulation ➢ Main concern raised about the UBE fund is tied to the share of 5% ECD, 60% primary and 35% JSS
Source: Orbach, 2003, Education Sector Status Report, 2003, UBE Act, and Matthew, 2012 *: There was a consensus of the on re-articulation but no law passed to enact it	

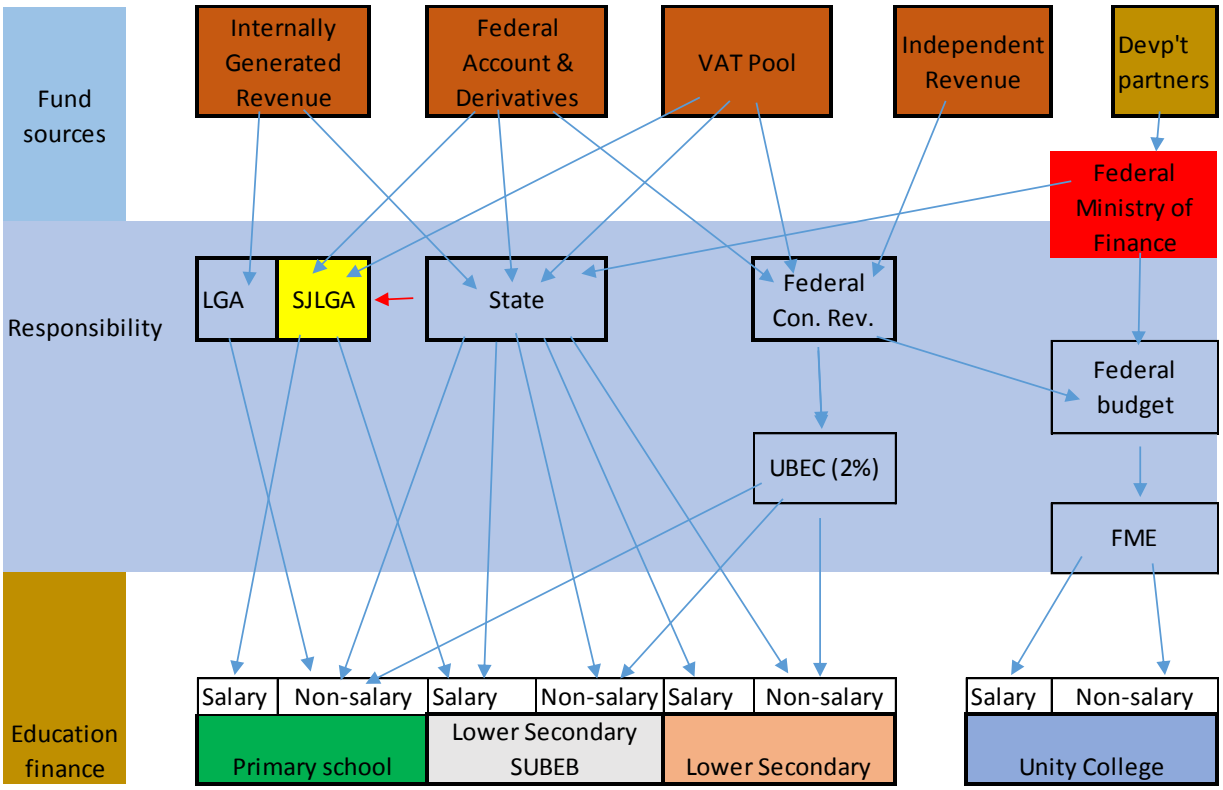
84. **As described earlier, financing of the education sector in Nigeria is unconventional in many ways.** Figure 12 shows the structure of basic education financing since the enactment of the 2004 UBE Act. The law preserves the constitutional responsibility of states and local governments in Nigeria to provide basic education and expands the federal government's responsibility in ensuring it is free and compulsory. The proceeds of the Federation Account are shared among the federal, state, and local governments, in accordance with a revenue-sharing formula and the funding is tracked from the source to the service delivery point. The current formula for dividing up total revenues to government allocates 52.68 percent to the federal government, 26.72 percent to state governments, and 20.6 percent to local governments (Figure 13). The UBE Act was developed based on constitutional mandates, and clearly demarked the financing sources of primary education between salary and non-salary, although, as explained earlier, the management of some junior secondary institutions is still under the responsibility of the states. However, the effectiveness of each policy action is entirely dependent on

adequate state level implementation. As a result, basic education management in Nigeria (at state level) is divided into three major categories[61]:

i. Basic education under SUBEB management. In this category, all salaries are withheld at source from the LGA's statutory allocation while non-salary expenditures are paid by the state and UBEC as part of the UBEC intervention fund. Under this category SUBEB has the full management authority over basic education institutions. Since salary is automatically paid at the source (based on the number of teachers SUBEB has identified on the payroll), salary budgeting is not part of the LGA budget process. The salaries do appear on the total LGA budget, which is based on actual withholding. This is how the UBE Act was envisioned, but, as stated above, very few states completed the disarticulation process leaving a much more complex structure behind.
ii. Primary education fully under SUBEB with partial responsibilities in JSS. In this category, while the financing arrangement for primary education is similar to the arrangement above, the JSS responsibilities may vary where some JSS teachers are under Senior Secondary State Management Board (SSSMB) while others are paid by SUBEB. For example, within a secondary school with both JSS and SSS, the JSS teachers may be paid in part by SUBEB while the principal or other teachers may be under SSSMB administration. Or, as in the case in Kogi, the stand-alone JSS (referred to as UBE JSS) are under SUBEB management and therefore teachers are remunerated from SUBEB, whereas other non-UBE JSS junior secondary schools are still fully under state management and therefore paid by the state.
iii. Primary education fully under SUBEB, with JSS fully under SSSMB. This category refers to states which never went through the disarticulation process (such as Lagos or Edo). In this category, primary education salaries are paid by SUBEB on behalf of the LGA and SSSMB pays junior secondary school salaries as part of the state secondary school. SUBEB is then fully responsible for non-salary payments on behalf of both UBEC and the state for the primary level. SUBEB also plays a supervisory role for the portion of UBEC funds that are supposed to go to JSS under secondary schools.

[61] Unity colleges is a social education system managed under the Federal Ministry of Education, covering grades 7-12. In 2012 they numbered in total 104 schools, located in various states. All of them are boarding schools and admission is merit-based. United colleges are the only secondary schools exempted from disarticulations.

Figure 12: The structure of basic education financing



Source: Authors' sketch following funding allocation arrangements in UBE following UBE Act of 2004
Note: Each State shall maintain a special account to be called "State Joint Local Government Account(SJLGA)" into which shall be paid all allocations to the local government councils of the state from the Federation Account and from the Government of the State" (Section 162 [6], 1999 Constitution of Nigeria).

85. **Education finance depends to a large extent on federal revenues and the ability of the states to finance education expenditures is directly linked to the availability of federal revenues**. Figure 13 shows a summary of the sources of revenue for the three tiers of government. Internally generated revenues for LGAs stand at 1.6 percent while allocation from the state government to LGAs only represent about 0.7 percent of their total revenue. This implies that about 95.3 percent of the LGAs' total revenue comes from statutory allocations, excluding the grants and revenues from the stabilization fund which accounts for the remaining 2.3 percent. Given that salaries are automatically deducted from the statutory transfers at source, this implies that LGAs have, in reality, very little say in education finance, and their role is more symbolic than anything else, given that there is no financial planning or budgeting on their part for the basic education level. At the state level, internally generated revenue (IGR) represents 19 percent of total revenues indicating some potential fiscal space for spending on education based on IGR. In particular, given that the states are responsible for capital and non-salary spending, states' ability to generate more revenue may suggest variations in resource availability across states for basic education spending. It is also noteworthy that, compared to the pre-UBE Act-period, where overhead costs of primary education were covered by the LGA, the new arrangement has shifted the non-salary burden entirely to the state level. However, as the disarticulation process progresses, and the LGAs take on a greater share of the JSS salaries, this will create an increasing burden on LGAs

resources. The net impact of the tradeoff between the reductions in overhead costs versus the addition of the JSS salaries varies across LGAs and depends on the extent of the disarticulation as well as the 'savings' or the extent of the burden that has shifted to the states. Therefore, as explained above, basic education as envisaged under the UBE Act heavily relies on federal resources, with limited responsibility at the state level.

Figure 13: Sources of overall revenues at all administrative levels, 2013

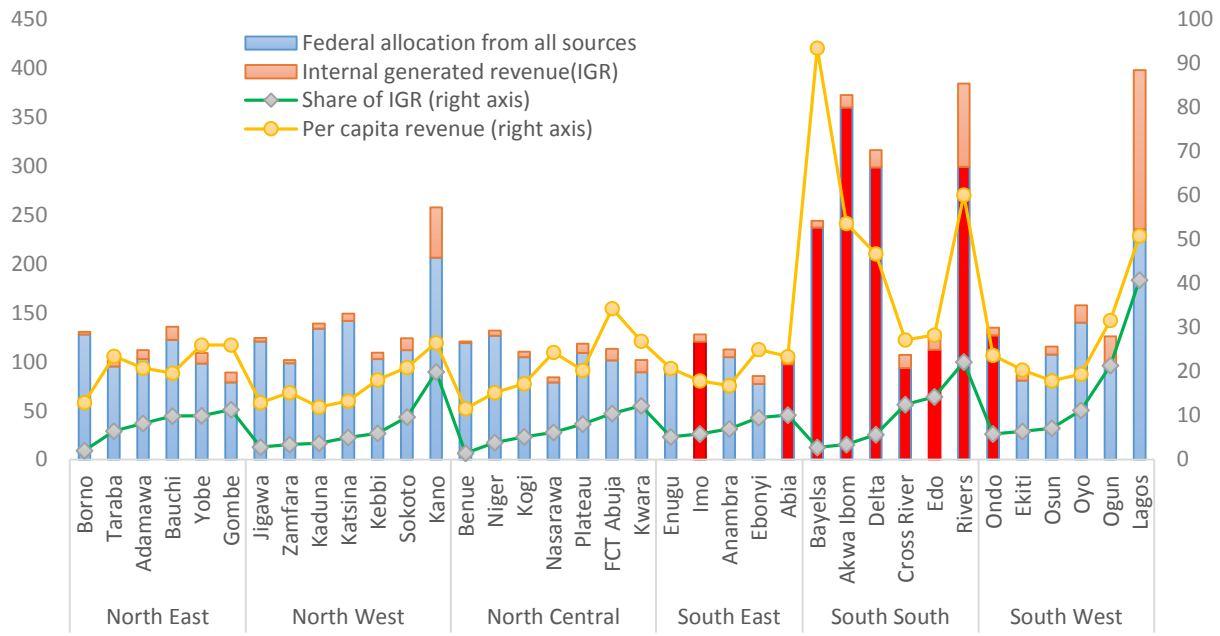
SOURCE	Federal Government			State Governments			Local Governments	Grand Total
	FG's Share	FCT	Sub-Total	States	13%	Sub-Total		
Statutory Allocation	2,777.4	53.5	2,830.8	1,435.8	615.0	2,050.9	1107.0	5,988.7
Augmentation 1/	351.3	6.8	358.1	181.6	101.6	283.2	140.0	781.3
Share from Excess Crude	208.7	4.0	212.7	107.9	60.3	168.2	83.2	464.2
NNPC Refunds	-	-	0.0	44.9	11.9	56.8	34.6	91.4
SURE-P	191.8	3.7	195.5	99.2	55.5	154.6	76.5	426.6
Share of VAT	106.9	7.6	114.6	381.9	-	381.9	267.3	763.8
FG Independent Revenue	274.4	-	274.4	-	-	0.0	-	274.4
Internally-Generated Revenue	-	11.0	11.0	574.9	-	574.9	29.3	615.2
Less State Allocation to LG	-	-	0.0	*12.8*	-	12.8	-	12.8
Net Internally-Generated Revenue	-	11.0	11.0	562.2	-	562.2	29.3	602.4
Grants	-	-	0.0	69.7		69.7	43.0	112.7
Share of Stabilization Fund	-	-	0.0	1.3		1.3	16.4	17.7
State Allocation to LG	-	-	0.0	-	-	0.0	12.8	12.8
Others	45.7	-	45.7	8.7		8.7	-	54.4
TOTAL	3,956.2	86.6	4,042.8	2,893.2	844.3	3,737.5	1,810.0	9,590.3

Source: Cited from CBN annual report with source from "Federal Ministry of Finance (FMF), Office of the Accountant-General of the Federation (OAGF), and Fiscal returns from state and local governments Survey
1/ Includes share of the difference between provisional distribution and actual budget"
Note IGR is noted for 12 billion naira and FCT included in state level which make some difference

86. **Given that the vast majority of basic education salaries come from the federal allocation, which in turn heavily depends on oil, factors that affect oil revenue also directly affect basic education finance**. The share of IGR varies greatly by state, and some tend to depend entirely on federal allocation due to low IGR levels. Figure 14 shows (i) total revenue breakdown by IGR; (ii) revenue other than IGR; (iii) the share of internally generated revenues out of total revenue; and (iv) the per capita allocation of non-IGR. The figure shows that share of IGR revenue varies from a low of 1 percent in Benue state (2 % in Borne state) to a high of 41 percent in Lagos. Overall, only four states including Lagos have an IGR share of revenue more than 15 percent of their total revenue—Rivers (22%), Ogun (21%) and Kano (20%). Edo ranks a distant fifth with 14 percent. In addition to Lagos and Kano, five of the 9 Niger Delta states have higher revenue. In general, revenues across states hover around 100 billion Naira, except for the 6 states where it is substantially higher (Lagos, Kano, Rivers, Delta, Akwa-Ibom and Bayelsa). However, since Nigeria has developed an allocation formula justified by rights enshrined in the constitution such as the right of the Niger Delta states to receive 13 percent of oil revenue prior to allocation; resource availability at the state level clearly depends not only on IGR but also on what is

being allocated from the federal level. In short, given that basic education funding relies heavily on federal allocation, which in turn varies by states based on the resource allocation formula, the rest of the analysis focuses on how such a financing structure affects basic education outcomes in terms of the equity, efficiency, quality and affordability of basic education services delivery.

Figure 14: Sources of education sector finance, 2013



Source: Calculated from CBN Annual report 2013 and Per capital allocation from Monthly Shares of Distribution from The Federation Account By State, Nigeria Economic Report, The World Bank Group(2013)

Basic education sector finance

87. This section presents an estimate of the financing of the basic education sector in Nigeria. In order to understand the political economy of finance in basic education and its influence on resource allocation and mobilization, it is important to first determine how much is being spent on basic education. Furthermore, given that resource allocation in Nigeria tends to be driven by political considerations, identification of the financial needs by state would shed some light on the areas that call for increased intervention or more efficient utilization of the existing resources. The estimate at the state level would also help to analyze funding adequacy and affordability, given the fiscal constraints of each state. However, despite being able to estimate the total spending on basic education from all sources, the overlapping responsibilities arising from the disarticulation and re-articulation process in basic education, and the concurrent spending by the three tiers of government on capital spending, makes it difficult to fully capture total spending in basic education.

88. **In addition to the issues posed by the disarticulation and re-articulation process, there are other discrepancies in the application of the legal framework regulating basic education that make it difficult to estimate financing from its source**. For example, salaries of the teaching and the non-teaching staff

at government primary schools are the responsibility of LGAs as per the 1999 constitution, but this responsibility was extended to basic education, which covers primary though junior secondary, as per the UBE Act of 2004. However, in practice, the responsibilities vary by state. Some states split the financial responsibility of salary payments of junior secondary schools between LGA and the state government (for example, Kano and Kogi), while in other states, salaries are fully under state responsibility (for example, Lagos and Edo). In addition to salary payments, LGAs also tend to dedicate some funds to capital spending, albeit a relatively small contribution, (about 4 percent of LGA education spending). The relatively small share of LGA contribution to capital spending is also confirmed in a previous analysis by USAID[62].

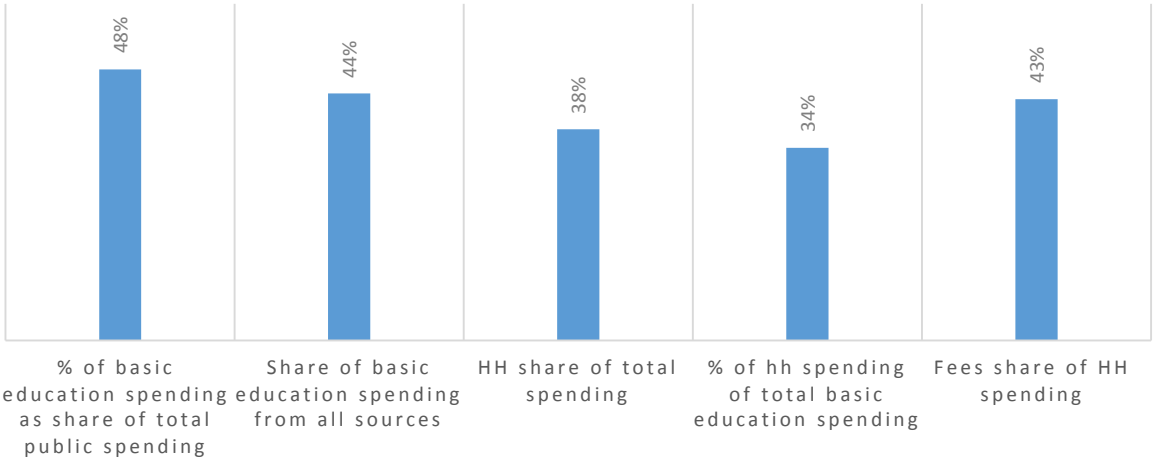
89. Furthermore, some junior secondary schools are physically located in the state secondary premises and, therefore, it is impossible to distinguish between state capital spending on junior secondary and upper secondary schools separately. It should also be noted that the estimate of basic education finance in this section is an underestimation due to the fact that some junior secondary levels are still managed as part of the secondary schools. For example, enrollment in junior secondary consists of 15 percent of total basic education. Being that non-salary spending for all junior secondary is captured as part of the matching grant and UBEC interventions, the salary portion of junior secondary not captured. In addition, since the primary education level accommodates the largest number of children in basic education, for the purpose of analysis of equity, out-of-school incidence and quality, this may underestimate the finance estimation but does not invalidate the finding.

90. The main data sources for the estimation include: (i) CBN, which has Federal, State and LGA level revenue, expenditure and a summary of key economic sector expenditure breakdown by capital and recurrent spending including education sector surveyed in 2013, (ii) statutory allocations by state from the Federation Account Allocation, (iii) household survey for state-level average teacher's salary estimates—2010/11 cross-sectional and panel survey for state level and 2012/13 panel survey for zone and national levels, and (iv) UBEC funds. It is important to note that some funds that are not distributed to each state (as there is no formula for this specific allocation) are directly executed by UBEC, but since this share is very small compared to total education budget (about 0.4%), they have been omitted from the calculations. In particular, these funds are meant for textbooks and UBEC executed special interventions such as Girl and Boy child education, Madrasah, Almajiri, etc. Given that this is small in size, we do not expect this to have any significant impact on the final distribution share, and (v) budget data collected from the six focus states (Lagos, Kano, Edo, Kogi, Bauchi, and Anambra). In addition, we also used some state budget data that was submitted by states participating in the first workshop held during the first mission in October 2014, as per our request. There are two main assumptions used in the estimation, which should be kept in mind in using the data: (i) we assumed states only contribute to capital spending via the matching grant, and (ii) as stated earlier, given that in some states JSS is managed and paid by the state government, the estimation includes only those schools under SUBEB management.

[62] Nigeria Education Data Survey 2010. States and local governments tend to budget and implement small-scale rehabilitation efforts. The SMOEs and SUBEBs provide maintenance and rehabilitation funds in their budgets for JSS's and primary schools respectively. In addition, the LGAs, as well as schools through their SMCs, mobilize monetary and in-kind resources to improve facilities and structures, typically with a focus on improving the safety or welfare of their learners (i.e., such as toilets, latrines or walls).

91. **Overall, basic education receives about 48 percent (673 billion Naira in 2013) of spending from the three tiers of government while this level accounts for 44 percent of total spending in education from all sources (public, households and donors).** Figure 15 shows the share of funds in basic education from all sources. While households channel 38 percent of their total education spending to basic education, the share of household contribution to total basic education spending stands at 34 percent. Although the basic education sector in Nigeria is officially free, fee payments nonetheless make up about 43 percent the total household spending at the basic education level. Despite the focus on free basic education, schools still collect fees as part of the official enrollment requirement through indirect collection channels. This issue, both in terms of accountability and its implication on access, is discussed later in the report.

Figure 15: Share of fund allocation to basic schools from all sources and fees share of household spending



Source: Authors' estimate from CBN, OECD, Nigeria, State Budget, Federal Government Budget, and General Household Survey Panel 2010/11 and 2012/13

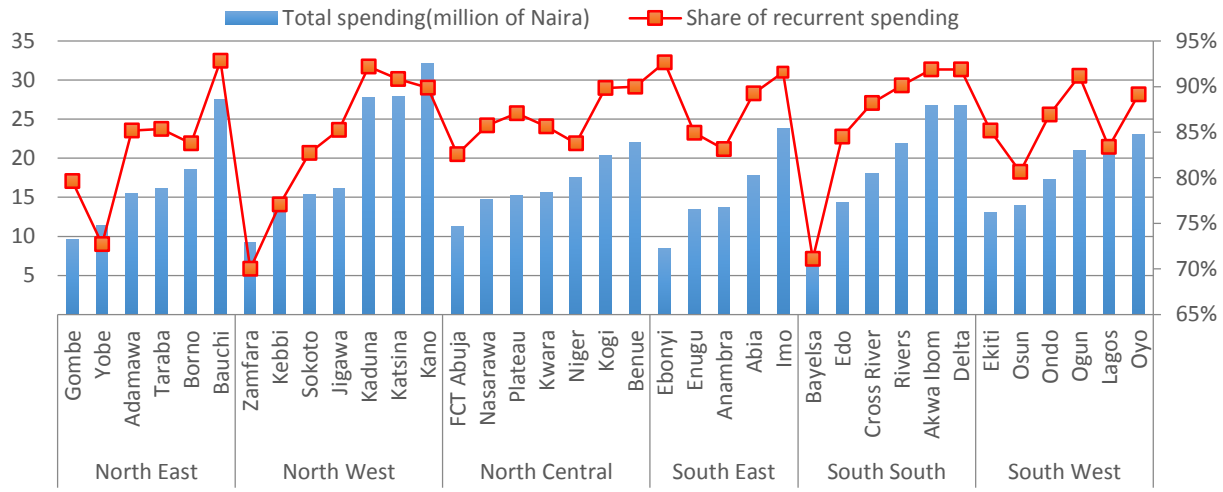
92. **The allocation of the basic education budget between capital and recurrent spending shows large variations across states.** Figure 16 shows total public spending (spending from all three tiers of government) on basic education by state and the share of recurrent spending[63]. At the national level, the share of recurrent spending stands at 84 percent while it ranges from a low of 70 percent in Zamfara state to a high of 93 percent in Bauchi state. Some of the variation is due to idiosyncratic features within the states. For example, the reason for the high share of recurrent costs in Bauchi state was captured during a qualitative data collection workshop. Specifically, the high recurrent share is a result of the state's policy of accommodating and enrolling children from displaced populations from surrounding

[63] Recurrent spending consists of LGA payment for salaries and other operating costs including UBEC intervention fund on non-matching grant. The CBN reported to total personnel cost for LGA and personal staff of LGA state level was estimated from Nigeria panel survey to distribute personnel costs to school personnel and non-school personnel. In addition, wage rate estimated from the panel survey and GHS to account for earnings difference between school staffs and non-school staffs. Similar capital sending was estimated based on matching garnet from UBEC and state contributions as well as LGA contributions stated above which is about only 4% of the LGA school budget. However, LGA contributions to capital spending is high for states with low spending on personnel costs

states that have moved to Bauchi with their families seeking a more secure and stable environment. Because of the transient nature of these students, and because of the limited visibility as to the permanency of these students in the system, there has been resistance to expanding the capital budget, even though recurrent spending has been adjusted to accommodate the influx of students.

93. **About a third of total capital spending at the national level comes from UBEC (4.6 percent out of 13 percent of total education spending on capital investments), while the rest is associated with state and LGA contributions (8 percent out of 13 percent respectively).** This is particularly important in some states where capital investment by LGAs and state governments' is higher than the amount received from UBEC's matching grant fund. Overall, funds from UBE intervention accounts for about 11 percent of total basic education spending and 3 percent of total spending on education.

Figure 16: Total spending on basic education (billion Naira) and share of recurrent spending by state, 2012



Source: Authors' estimate from CBN, OECD, Nigeria, State Budget, Federal Government Budget, and General Household Survey Panel 2010/11

94. As stated earlier, the following section will explore the impact of education finance in Nigeria against the backdrop of the existing political economy, and will focus on three key aspect of education performance, (i) equity, (ii) out-of-school incidence, and (iii) quality of education.

VI. Key challenges for the basic education sector

95. **Disparities in access and low education quality are the two most salient education challenges facing Nigeria**. In particular, disparities in access across states are significant, and key learning outcomes indicators are low. This raises concerns about the knowledge and skills acquisition of the current cohort of students and the potential limitations this poses on their ability to thrive in the workforce. In addition, there are millions of school-age children who remain out-of-school, most of them in the northern zones. Left unaddressed, these issues can be expected to reinforce the zonal disparities that already exist.

96. This section investigates the key education sector challenges, and analyzes the issues across the different social, economic and geographical groups to better understand the severity and particularities of the challenges. It also assesses whether the current governance mechanism in basic education allows the country to address the challenges or whether additional reforms will be required to overcome them. In this section, we adopted a problem-driven approach to assess the implications of the education sector governance and financing framework on (i) equity in access, with a special focus on out-of-school children, and (ii) the quality of education at the basic education level. While most of the analysis is data driven, the findings in each section are supported by qualitative analysis (see

97. Annex E ***1*** for a summary of the approach as well as details on the qualitative data collection instruments and methods employed).

Inequalities in access to basic education services

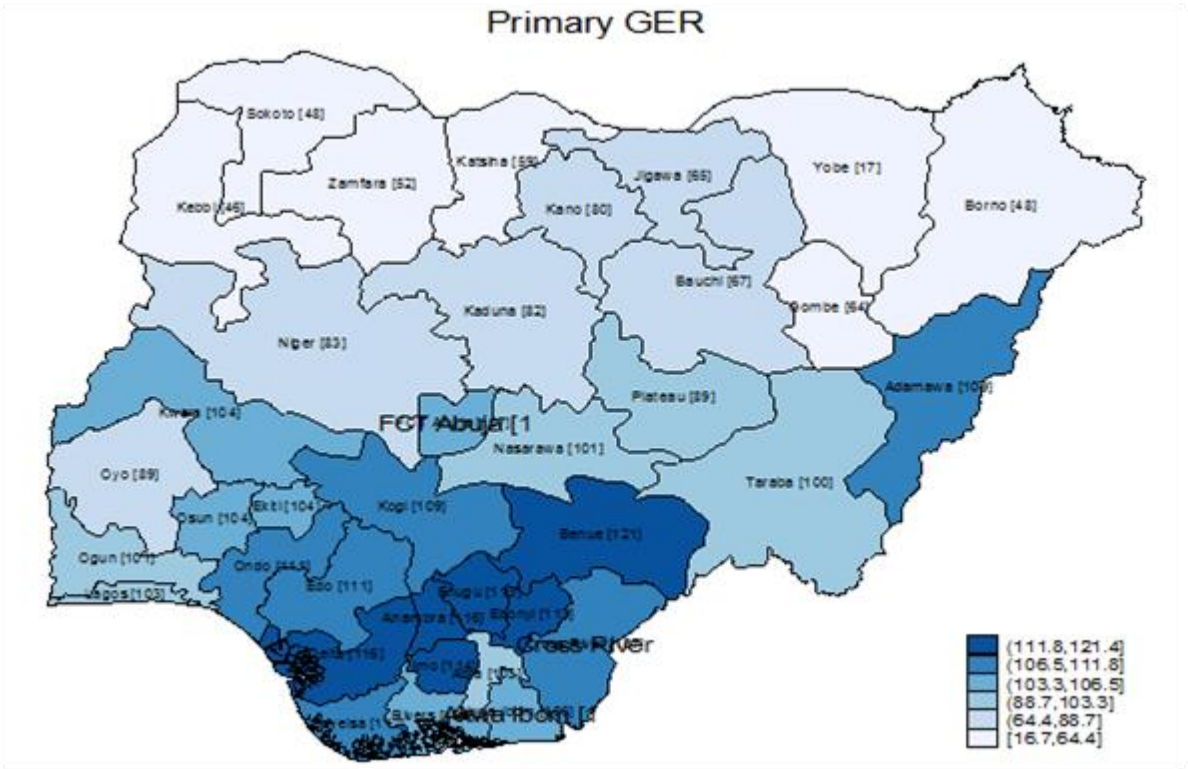
98. To investigate the factors affecting equity in basic education, the following four areas are explored: (i) a diagnosis of the current status of equity in basic education using primary and junior secondary gross and net enrollment rates, and incidence of out-of-school children by geographical zone and state, (ii) an analysis of the role of private sector provision in basic education and how it relates to equity, (iii) an analysis of equity and efficiency of resource utilization (unit cost analysis) and the affordability of schools, and finally (iv) an analysis of the role of the public sector in protecting equity given the political economy of service delivery under dual federalism, where power is divided between the federal and state governments— with a special focus on the UBE intervention. The analysis is followed by policy recommendations. Given the high incidence of out–of-school children in Nigeria—an estimated 13.2 million school-age children are not in school, the largest out-of-school population in SSA—special focus is provided in the analysis on the root causes of the out-of-school incidence. In particular, this includes (i) a detailed diagnosis of the topology of the out-of-school situation in the basic education level by geographic zone, area of residence (urban/rural), gender, wealth quintile, (ii) an in-depth analysis of qualitative and quantitative reasons for children being out-of-school, and (iii) an estimation of the financial implications of accommodating out-of-school children into the education system. The analysis is supported by quantitative analysis using several regression models and qualitative information gathered from case studies from each of the six selected states, one from each zone: Bauchi, Anambra, Kano, Lagos, Edo and Kogi. This section will answer the following questions:

- What are the characteristics of children in school and those who are out-of-school, and how severe is the incidence of being out-of-school?
- Who provides basic education services and what is the role of the private sector?
- Is basic education affordable to the poor?
- What are supply and demand side factors that determine schooling decisions and participation?
- Is spending in the basic education sector adequate and equitable across states?
- Does public spending protect equity?
- How much would it cost to provide schooling opportunities to excluded groups?
- Does the political economy of Nigeria allow for the equitable distribution of resources within the current governance and accountability framework? Does it make it possible to address the out-of-school issue?
- Is Universal Basic Education achieving the intended goals? Why, or why not? What should the UBEC consider doing to achieve these goals?

Overview and update of access and equity

99. **While Nigeria faces multidimensional challenges in terms of inequality, the north-south divide in access to basic education harbors the most pronounced disparity in the country.** Figure 17 shows primary and junior secondary gross enrollment rates (GER) (Annex B, Figure B1 shows a detailed breakdown of both gross and net enrollment rates by state). The primary GER ranges from a low of 17 percent in Yobe to 133 percent in Bayelsa while the corresponding figures for the NER ranges from 12 percent in Yobe to 88 percent in Anambra. Figure 17 clearly illustrates that in terms of GER, the south tends to fare much better than the north. It should be noted that although access to junior secondary is expanding across the country, the gap between net and GER is still very high, reflecting the presence of overage children particularly at junior secondary level, where, on average, the gap between gross and NER is 45 percent compared with an average of 24 percentage points at the primary level. The issue of overage children also varies between the north and south. At the primary level the south is closing the gap between gross and NER while the gap in the north remains high reaching 45 percentage points in Benue state. At the junior secondary level, the access rate is extremely low in the north both in terms of gross and NER while the GER is high in the south. In terms of trends over time, the estimate for net primary enrollment ratio shows the north has made significant progress although it remains well below net enrollment rates in the south, where the rate has generally stagnated (Annex B, Figure B1).

Figure 17: Primary and junior secondary gross enrollment rates by state



Source: Authors' estimate based on Demographic and Health Survey, 2013

100. **An estimated 13.2 million basic education school-age children (age 6-14 years old) were out-of-school in Nigeria in 2013—an increase of 3.3 million from the 2010 estimate—and the issue is predominantly a northern phenomenon**. Figure 18 shows trends of out-of-school children by geographical zone. The result shows that the number of out-of-school children increased in the northern part of the country mainly in North East and North West between 2010 and 2013. At the same time the number of out-of-school children dropped significantly in the South South and South West zones along with sizable drops in the South East and North Central Zones. From the total of 13.2 million out-of-school children, 12.6 million (95 percent), are located in the northern zone- clearly indicating that the incidence of out-of-school children is predominantly an issue affecting northern states.

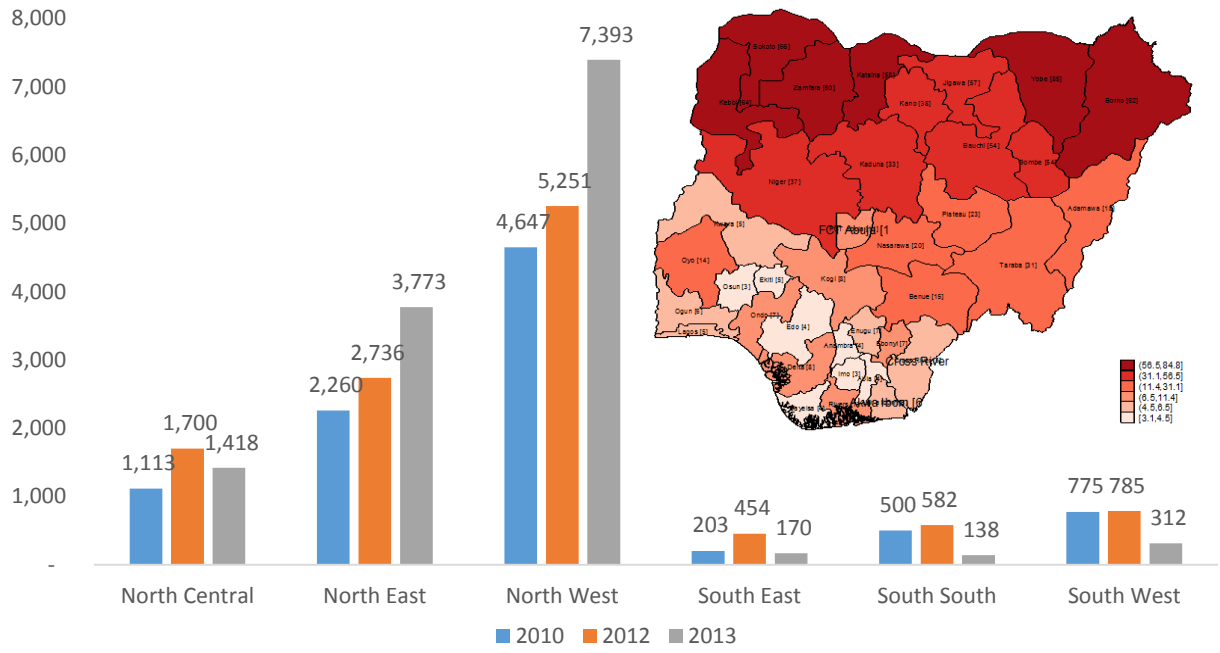
101. **State level trend analysis of the out-of-school issue reveals an increase between 2010 and 2013 in 8 of the 13 North East and North West states and in only one state in the south.** Annex B, Figure B2 presents trends for the out-of-school rate for children age 6-14 by state. It should be noted that the term "out-of-school" is clearly defined as all children of the specified age group who do not attend any type of schooling institution. In other words, if a child attends an informal private school or non-integrated religious school, they are considered in school, therefore underlining that the estimate of the out-of-school incidence is not an overestimation. In many states in the northern part of the country, including Yobe, Sokoto, Kebbi and Borno, the incidence of out-of-school children stands at more than 50 percent. In Borno the rate is above 60 percent. The effects of conflicts in those parts of the country on the out-of-school rate is investigated in the modeling section below using the ACLED[64] conflict database, and it is very clear that the conflicts played a role in increasing the incidence of out-of-school children in some of the northern states. For example, in Yobe, the out-of-school rate was as high as 85 percent in 2013, reflecting the high impact of conflict in the area. Generally all states in the south maintained an out-of-school rate below 10 percent with some of them very close to zero. Although the impact of the conflicts is documented, it is also very important to understand the reasons beyond the armed conflicts that may contribute to this strong north-south disparity among children. This implies that Nigeria has an opportunity to reinforce north-south cooperation through the sharing of some of the strategies developed and lessons learnt from the southern experience in order to address the out-of-school issues in the north. The rest of this section will explore these questions.

102. **A closer look at the topology of out-of-school children reveals that about 9 out of 10 out-of-school children have never attended school, or had any form of schooling.** Annex B, Figure B3 presents the breakdown of out-of-school children between those who (i) never attended school and (ii) those who dropped-out, focusing on states where the out-of-school incidence is above 10 percent, which is nearly exclusively comprises northern states. At the national level in 2013, 92 percent of out-of-school children had never attended school while only 8 percent dropped out of school. In Yobe, almost all out-of-school children within the 6-14 age group have never been to school. Given that the internal conflict intensified after 2010, it was the most likely cause for the majority of primary school-age children being out of school in Yobe. In addition, given that children tend to start primary school with

[64] ACLED (Armed Conflict Location & Event Data Project) is the most comprehensive public collection of political violence data for developing states. This dataset contains information on the specific dates and locations of political violence, the types of event, the groups involved, fatalities and changes in territorial control. Information is recorded on the battles, killings, riots, and recruitment activities of rebels, governments, militias, armed groups, protesters and civilians (http://www.acleddata.com/)

a delay in Nigeria (on average at 9 years old instead of 6 years old), this implies that the intensification of conflict will no doubt cause further delays among the intended cohort of students, increasing the likelihood of either never attending school or not completing one's education. This will have a negative impact on young people's lifetime earnings and potentially reinforce this intergenerational poverty effect as well.

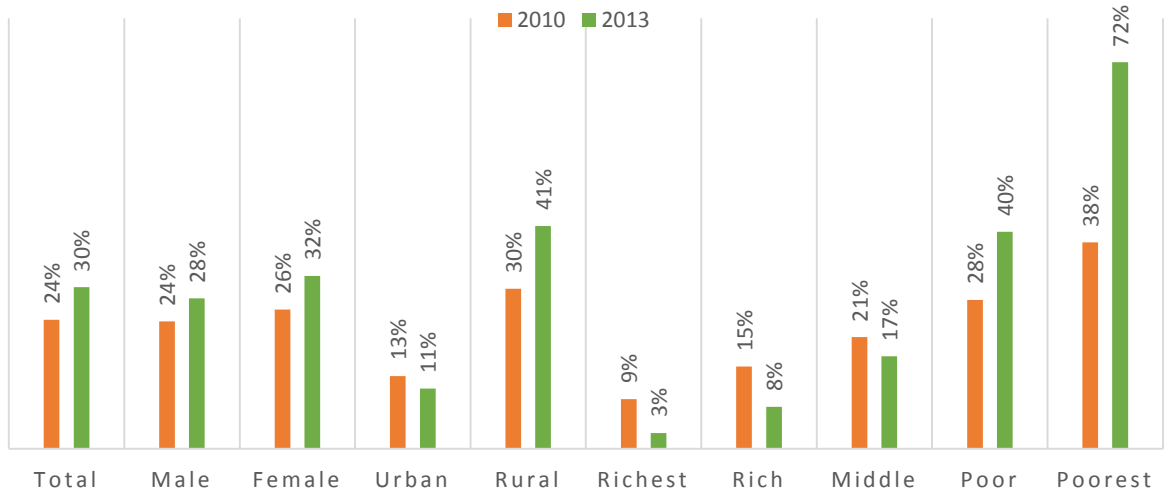
Figure 18: Number of out-of-school children by zone and geographic distribution



Source: Authors' estimate from General Household Survey Panel 2010/11 and 2012/13, and Demographic and Health Survey, 2013

103. **The out-of-school issue is particularly prominent in the North, in rural areas, among girls and among the poorest in society, hence affecting the most vulnerable social groups.** Figure 19 presents trends in out-of-school rates by areas of residence, gender and wealth quintile. At the national level, the out-of-school rate increased from 24 percent in 2010 for children age 6-14 to 30 percent in 2013 and remained highest in 2013 among girls (32 percent vs 28 percent for boys), in rural areas (41 percent vs 11 percent in urban areas), and among the poorest (72 percent for the poorest quintile vs 3 percent for the richest). The breakdown of the trend by the social groups reveals that, over the 2010—2013 period, the incidence of out-of-school children increased faster among girls, in rural areas and among the poorest two quintiles. On the other hand, the out-of-school rate among the richest three quintiles and those in urban areas fell over the same period. Therefore, not only are children from vulnerable groups more likely exposed to being out-of-school but they have been the drivers of the increase in the national average out-of-school rate over recent years. Further reasons are explored in more detail in the report.

Figure 19: Trends of out-of-school rate by gender, areas of residence and wealth quintile (children, age 6-14)



Source: Authors' estimate from General Household Survey Panel 2010/11 and Demographic and Health Survey, 2013

Unit cost and affordability of schooling

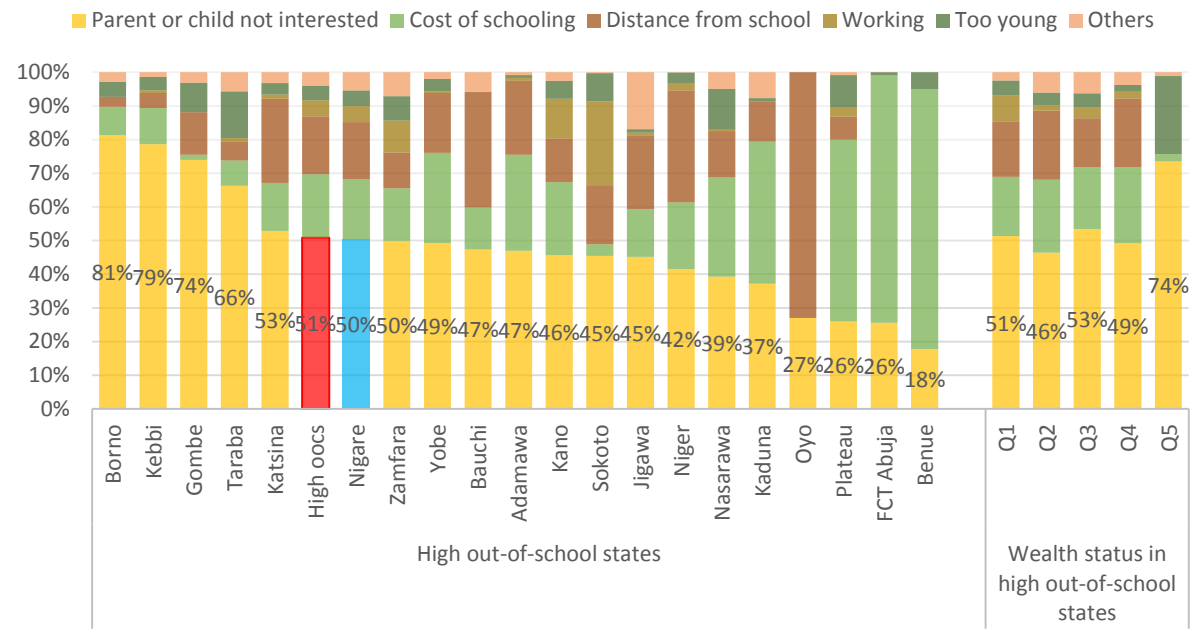
104. **The problems of unequal access to education are broadly linked to issues along the north-south divide but, in reality, inequalities and the incidence of out-of-school children vary greatly by state as well as within states**. Children from poor households, rural areas and girls are vulnerable populations in almost all states of Nigeria- even if the reasons may vary. In some states, high out-of-school rates are due to economic reasons, in some it is due to cultural reasons while in others it is due to instability resulting from teachers' strikes or armed conflicts. As for girls, their lack of participation is at times linked to their parents' preference not to send them to get an education, or the lack of adequate school infrastructure, or even at times to the reluctance of parents to send girls to school where most teachers are male. In terms of the urban-rural gap, one of the main difficulties identified has been the challenge of deploying teachers to rural areas, especially female teachers who tend to be mostly tied to urban areas where their husbands hold employment. This is an additional disadvantage for rural girls, who are therefore deprived of female role models. Rural areas also have inadequate infrastructure facilities due to poor funding of school construction and rehabilitation in rural areas. States differ in terms of resources generating capacity, particularly regarding IGRs, but it has also been difficult for the federal resource allocation to address the issues in the absence of any needs-based formula.

105. **It should be noted that because of the effects of delayed entry to school in Nigeria, where children tend to start their education closer to the age of 9 than the official start age of 6 years old, the age used in the out-of-school analysis is fixed at 10-14 of age given that this is the age group with the highest chance of school attendance.** In fact, among primary school-age children (age 6-11), being 'too young' represents a significant share of the reason for being out-of-school, which could also capture cross-related factors associated with age. For example, distance to school—if the school is considered too far, younger children may not be able or allowed to walk to it. In similar fashion, stunted growth

in early childhood may undermine proper development of the child and affect their readiness for school. Such issues can be addressed by provision of ECD programs in combination with other child-development activities including nutrition programs. On the other end, for children over the age of 14 who are out of school, the main problem is not related to the dropout rate; rather it is that most of these children have never attended school in the first place. Therefore, to better understand the reasons for being out-of-school for the cohort that would otherwise have the highest likelihood of being in school, the analysis focuses on the 10-14 age group.

106. **More than half of the out-of-school children in Nigeria are in that situation either because their parents do not think education is important or because the children themselves are not interested in pursuing their education**. Figure 20 shows the reasons provided for children being out-of-school for a cross-section of states with high out-of-school rates, by quintile, as well as the national average. In general, the three main reasons for being out-of-school, in order are (i) parents do not think education is important or child is not interested, (ii) the cost of schooling is prohibitive, and (iii) the distance to school is too far. However, there is some degree of heterogeneity across states regarding the main reasons for children being out-of-school. From the 19 states with out-of-school rates above 10 percent, only five states list the main reason as either related to the cost of school or distance. In particular, Oyo (the only state from the southern area in this category), identified distance as the main of reason for out-of-school while Benue, Abuja, Plateau and Kaduna (all from the north), indicate that cost of schooling is the main reason for being out-of-school. For the rest of the 14 states, the overwhelming reason is tied to the notion that either parents or children are not interested in education. This reason ranges from 39 percent in Nasarawa to 81 percent in Borno. However, it is important to note that this particular answer could be interpreted from differ angles including the inability of parents to understand the value of education as it relates to the skills needed for their family's day-to-day life. When disaggregated by quintile, across all 19 states, the lack of a premium placed on education by parents and children is apparent at all levels of wealth- and is the highest in the richest quintile. This clearly highlights that there are key reasons other than cost considerations driving the high out-of-school rates, which the modeling section will explore further.

Figure 20: Reasons for Never attended category of out-of-school for children (age 10-14) for high out-of-school states and by quintile for the high states



Source: Authors' estimate from General Household Survey Panel 2010/11

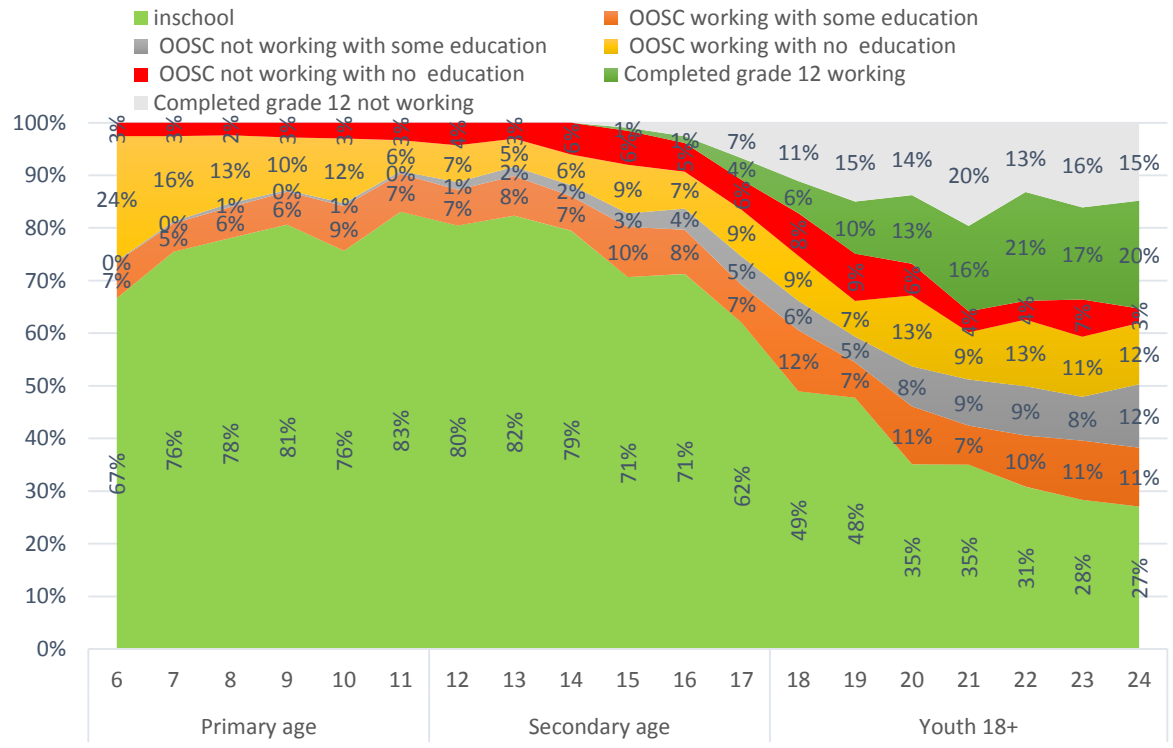
107. **Parent education, their sector of economic activity, area of residence and wealth status are key determinants of whether parents think education is important or not.** The parents' own education level is a strong determinant. For example, the probability that parents with no education find education not important is at 20 percent compared with 5 percent for those parents who have some education, holding all other factors are constant. Similarly, parents who work in the agrarian sector, are from rural areas, and are in the poorest quintiles tend to believe, to a larger extent, that education is not important compared with their relevant counterparts (non-agrarian, urban, and wealthier). This is also consistent with the out-of-school findings above, which indicate that it mostly affects the northern part of the country where the poverty rate is high, more than half of adult population have no education (compared to only about 10 percent in the south) and where most are employed in agrarian activities and live in rural areas.

108. **Some children in Nigeria start working as early as age 6 but the need to work is not the main reason why children are not in school.** Figure 21 presents the breakdown of activity of official school-age children and youth aged 6-24. In this section, out-of-school is defined as those not currently in school without having completed secondary, but the analysis also presents those who have completed secondary, to fully capture the activities of this age group for comparison purposes. Accordingly, the activities of the children-youth cohort are grouped into 7 categories: (i), those currently in school, which includes those who are working and attending school at the same time, (ii), out of-school youth working with no education (never in school), (iii), out-of-school youth working with some education (dropouts), (iv), out-of-school youth not working with no education (never in school), (v), out-of-school youth not working with some education (dropouts), (vi), youth working with secondary completed, and (vii), youth not working with completed secondary. It should be noted that the chance

of future school attendance for those aged 6-11 not currently in school is high given the frequency of delayed entry,[65] where students may even start school at age 11.

109. **Opportunity cost is not the common reason why children are not in school. For example, only 62 percent of the 17 years old are in school, and of the 38 percent not in school, only 16 percent are engaged in some economic activity**. Of those not in school, 15 percent have never been in school of which 9 percent are working and 6 percent are not working, 12 percent are dropouts, of which 5 percent are not working and 7 percent are working, and the remaining 11 percent have completed secondary school of which 7 percent are not working and 4 percent are working. This implies that children with some education have the same probability of engaging in labor market activities as those with no education, meaning that the reasons children are out-of-school are likely other than their desire to join the labor market. In addition, among those who completed high school, there are more children not working (7 percent) than working (4 percent). As stated above, most of the children with better education are from the southern part of the country, while those with no schooling are from the north. For example, for youth aged 15-24, about 30 percent completed secondary in the south compared with only 13 percent in the north (Annex B, Figure B4).

Figure 21: School-work activity of official school-age population and youth

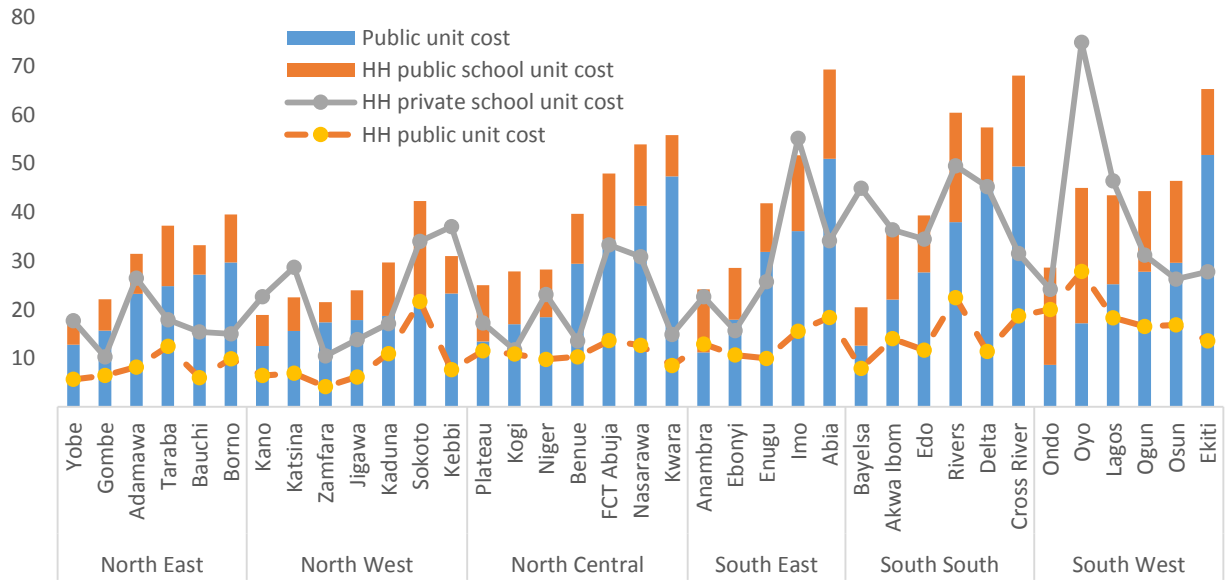


Source: Authors' estimate from General Household Survey Panel 2012/13

[65] According to the UNESCO standard definition, Out-of-school children are broken down into three groups: delayed entry (those who have potential to enroll in school but have not yet started), never in school (those who never entered school and are not expected to start school), and dropout (those who attended school at one point but left the school system and are not expected to re-enter).

110. **Unit cost estimation of spending per student shows large variations across states, and public schools are more expensive than private schools**. Figure 22 shows the household unit cost in public and private schools, and the public unit cost in public schools. At the national level, the average public unit cost in basic education stands at Naira 21,344 per student, ranging from a low of Naira 17,491 per student in the North West zone to a high of Naira 35,043 in South South zone (not shown on figure). There are three key observations from the unit cost analysis: (i) public schools (public and household costs combined) are more expensive than private schools. Under the assumption that private schools provide better quality education, higher unit cost in public schools suggests inefficiencies within the public school system (a detailed analysis of efficiency including a data envelope analysis is presented in the out-of-school section), (ii) large variations across states reflect unequal distribution of resources and unequal resource availability per enrolled child. Children from the southern states receive more allocation from both the public and from households regardless of the type of schools they attend although it varies from zone to zone, and (iii) as expected, household payments in private schools are higher than in public schools. As a result, although enrollment in private schools accounts for about 20 percent of total basic education enrollment, the spending share accounts for 42 percent of total household payment. This is generally expected when private schools provide better quality education, but in Nigeria the quality of private schooling provision is mixed. For example, the SDI report on the four states (Anambra, Bauchi, Ekiti, and Niger) showed mixed results of student learning outcomes (detailed SDI and teacher qualification information is presented in the quality section later in this report).

Figure 22: Public and household unit cost in public school and household unit cost in private schools(in '000 Naira)



Source: Authors' estimate from CBN, OECD, Nigeria, State Budget, Federal Government Budget, and General Household Survey Panel 2010/11

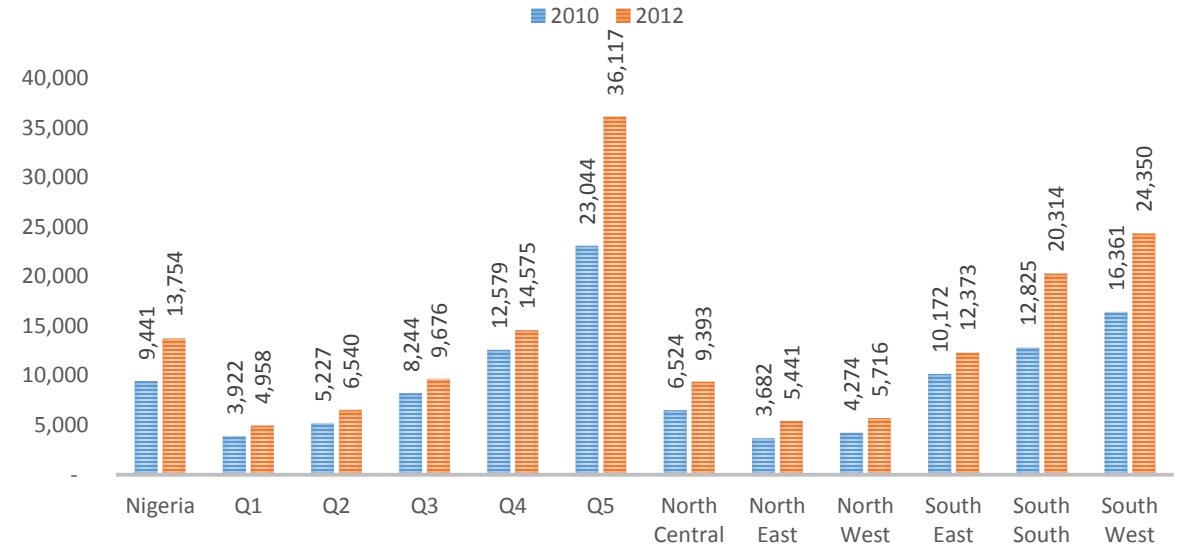
111. **Children from the poorest households and from northern states face a significant resource shortage compared with children from affluent families and from southern states regardless of the type**

of school they attend (public, private and religious). Figure 23 presents the estimates of household education spending per student— average spending of all households regardless of the school type, by quintile and geographical zone. This shows that available resources per student increases with each quintile and is very high in the southern states. For example, households from the richest quintile spend about 8 times more per student than households from the poorest quintile (Naira 36,117 vs. Naira 4,958 per student in 2012). Similarly, households in the South West zone spend 5 times more per child than households in the North East zone (Naira 24, 350 vs Naira 5,441 per student in 2012). This means that two children, from two different income quintiles and geographical zones, have different levels of access to overall resources even though they have equal chances of accessing to public resources. It should also be noted that resources available per child from the affluent and southern states have increased at a higher rate than resources available for the poorest children and those in the north. For example, household spending in the richest quintile increased between 2010 and 2012 by Naira 13,073 (57 percent increase) while the increase is only Naira 1,036 (26 percent increase) for the poorest quintile.

112. **Household spending on education in the south remains much higher than in the north and the trends reveal that spending on religious schools increased much faster than on public or private schools between 2010 and 2012.** As mentioned above, Figure 23 shows the trends in household unit costs by geopolitical zones between 2010 and 2012[66]. The analysis also reveals that religious schools tend to be more accessible than private schools with overall lower unit costs, at times even lower than public school unit cost, while on the other hand, private school unit costs are always higher than public school unit costs for households (Annex B, Figure B5). While unit costs could also reflect living standard differences between the geographical zones, children from the southern states clearly benefit from higher per student allocation in all three school types. It is also worth noting that household unit cost in private and religious schools were almost the same in 2012 (Naira 32,646 in private schools vs. 32,421 in religious), mainly due to increases in North Central and South South zones. Detailed implications on children's educational outcomes of spending on education and per child cost is presented later in the report, while the rest of this section aims to understand the root causes of high unit costs in the southern states and the role of public provision in protecting equity.

[66] Trends of unit cost by state are impossible to determine due to lack of state level representation on the 2012/3 wave 2 panel survey

Figure 23: Available resources per child by quintile and geographic zone (In Naira)



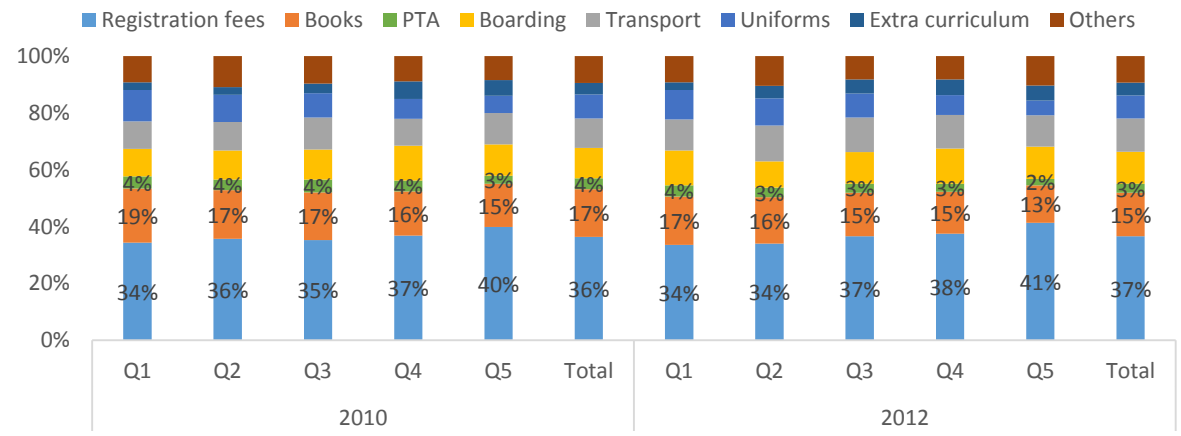
Source: Authors' estimate from General Household Survey Panel 2010/11 and 2012/13

113. **Basic education in Nigeria is free as declared by law. However, fee payments constitute more than half of the total household out-of-pocket education payments**. According to the UBE law, fee collection is illegal, a criminal offense: "—public primary and junior secondary schools are to be free. These include books, instructional materials, classrooms, furniture and free lunch." To ensure this, the law makes it a criminal offense for any person to receive fees from parents in exchange for education services. "Any principal, headmaster, teachers, or P.T.A officials who obtain fees is guilty of the offense punishable with Naira 10, 000 fine or three months imprisonment or both" (UBE Act 2004). This clearly shows that there is a sharp dissonance between the UBE policy and its application, which heavily undermines the effectiveness of the policy, and which may lead to adverse effects on the decision of families to send their children to school. For example, in Kano, where the number of out-of-school children is one of the highest in the country, parents are expected to pay school fees to the SBMC on a voluntary basis, where the fees collected per student are exactly the same amount (300 Naira per student per year) as the previously official fee collection prior to its abolition. The implications of the continued fee collection are explored further in this report.

114. **Trends in household out-of-pocket spending broken-down by payment type show that fees are the key drivers of household education payments, with a slight decrease between 2010 and 2012 from 57 to 55 percent of the total.** Figure 24 presents the trends in household payment by category of education expenditures in public schools. At the national level, the share of household spending attributed to fees (fees which should be free under the law, including registration fees, books and PTA contributions), remained high between 2010 and 2012 at 57 and 55 percent of total household education payments, respectively. There was very little variation by quintile between 2010 and 2012 with marginal increases for the upper three quintiles, and marginal decreases for the two lower quintiles over time. This finding has two general implications, (i) education is not, in actuality, free as declared in the UBE Act, and (ii) more than 50 percent of school payments come from fees—the driver

of per unit spending. However some of the non-fee spending by households is also among key factors determining learning outcomes. As discussed earlier, the resources available for children from poor households are low but this figure also shows the disparities in type of education spending. To the extent that non-fee inputs lead to better student learning and performance, the education outcomes of poor students would be expected to be worse than those of better off students. The distribution of the fees also reflects some dynamic of school payments across different wealth quintiles. While registration fees are the single largest part of all spending across wealth quintiles, fees tied to books are the second largest household payment at national level (17 percent in 2010 and 15 percent in 2012), which is directly correlated to learning outcomes. In addition, payment for extracurricular activities (such as tutoring and after-school programs) is positively correlated with grade 6 test results for the junior secondary entrance exam as shown in Annex B, Figure B6 in annex. The quality section of this report investigates the effect of such charges on learning outcomes.

Figure 24: Breakdown of fees payment by level of education and quintile

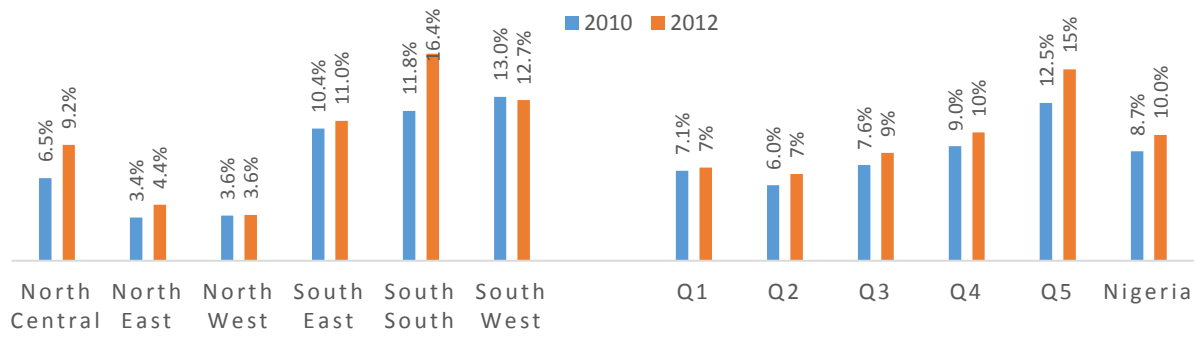


Source: Authors' estimate based on General Household Survey Panel 2010/11 and 2012/13

115. **The trends in household spending on education clearly illustrate the particularly strong commitment to education from the southern states and affluent families**. Figure 25 presents trends in household education spending as a share of total household expenditure by geographical zone and household wealth quintile. Between 2010 and 2012, at the national level, household spending on education as share of their total consumption increased by 1.3 percentage points (from 8.7 percent in 2010 to 10 percent in 2012). This is very close to what the public sector spent on education during the same time as a share of total public spending, as shown earlier. However, the share of household spending on education as a share of total household spending reveals that households from the lowest consumption quintile and northern states spend less on education. The wealthiest households and households from the southern states, which tend to be relatively wealthier, spend relatively more on education. Between 2010 and 2012, the richest quintile also increased their spending on education relative to their income at a faster rate than the poorest quintile. In most countries, the share of education spending of total household spending among poorer households tends to be higher than the share of spending among the richest households due to the poor households' low consumption level, but this is not the case in Nigeria. This leads to the question: why do the poorest families as well as households in the north tend to spend less on their children's education? While the answer to this

question depends on several factors, under the scope of this analysis the following are key factors: (i) poverty status of states—i.e. headcount poverty rate is negatively correlated with education share of total household consumption and most of the northern states are associated with high poverty incidence (Annex B, Figure B7), (ii) returns to education in the northern states are low—mainly driven by a low level of education of the working age population and high alignment of low skilled agricultural activities (Annex B, Figure B4). In particular, this implies that there is limited motivation for household to put their hard earned money into education since they observe no obvious returns, (iii) cultural barriers which are discussed in detail later in the report.

Figure 25: Trends of household share of education spending in the total consumption by zone and quintile, 2010, 2012



Source: Authors' estimate from General Household Survey Panel 2010/11 and 2012/13

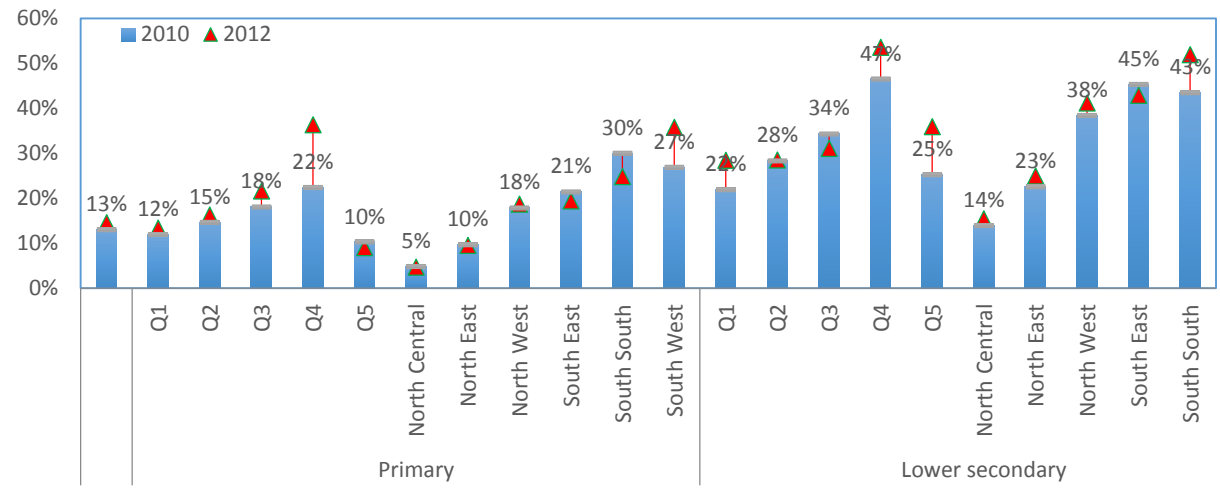
116. **The state-level analysis of household payment on education as a share of total household spending reveals that families in the upper consumption quintiles spend more than lower quintiles within southern states while there is not much difference across quintiles in the northern states.** Annex B, Figure B8 in the Annex shows the education spending as a share of total household consumption for the poorest and richest quintiles and average at state level.[67] In terms of the average share of spending in the northern states, it ranges from a low of 1.7 percent in Bauchi and Kano, to 7.8 percent in Kogi and Benue. The corresponding figures in the southern states is a low of 6.5 percent in Edo state to a high of 15.3 percent in Ondo state. The richest households in the northern states, except in the north central states, tend to spend more on education than the poorest households while in the southern states, although overall the spending share is high, many states show that the poorest quintiles spend a similar share if not more than the highest quintile. Overall, this figure demonstrates that regardless of wealth status, states in the north, which are generally poor, spend less on education both in absolute terms and as related to their overall spending.

117. **Spending per capita shows that education spending in Nigeria is not as high as expected, perhaps because households are too financially constrained to invest in education whereas in other countries the burden that families accept, even among poorer households, tends to be relatively higher.** Figure 26 shows per student per capita spending on education. In order to understand the implication of this pattern on the welfare of the poor, it is necessary to translate the per student payment to per capita payment. This is done by dividing the per student payment by the average per capita

[67] Note that 2012 data is not state representative and 2010 is used for state level comparison

consumption for household for each quintile level, that is, the household unit cost divided by per capita consumption at household level. In general, poor households in Africa are larger in size (in Nigeria, mean household size is 9 in the poorest quintile vs. 6 in the richest quintile). This leads to lower per capita spending, which, in most countries, tends to increase per student per capita spending. However, in Nigeria the lower share of per student per capital spending by the poorest household clearly indicates less spending on education rather than representing a high burden on the poor. On average, at primary level, households' per capita spending on education ranges from 5 percent in North Central to 30 percent in South South. Similarly, at the national level, the per capita spending at primary level increases with each quintile except for the highest quintile, which could be explained by the fact that the income of the highest quintile is much higher than the marginal education household spending. The rates are higher for all other quintiles, increasing from the lowest quintile to the fourth quintile from 12 percent to 22 percent. The trend overtime is almost similar at the junior secondary level, which follows a similar pattern as the primary level.

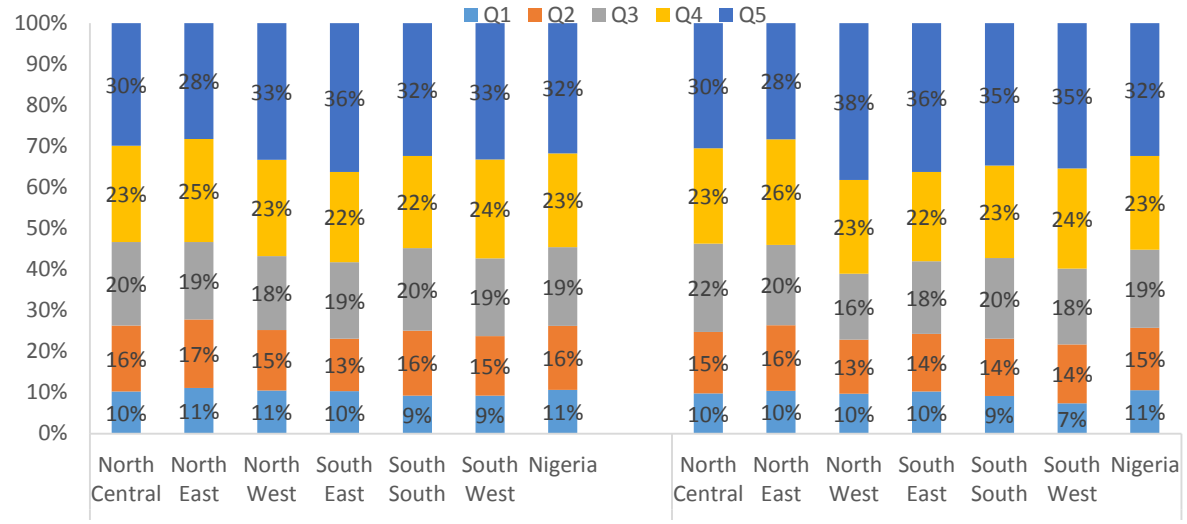
Figure 26: Trends of household per capita spending by quintile and geographic zone, 2010, 2012



Source: Authors' estimate General Household Survey Panel 2010/11 and 2012/13

118. **The trend in income inequality in Nigeria indicates that the income holding of the poor slightly diminished between 2010 and 2012.** Figure 27 shows the income distribution by quintile for 2010 and 2012. The income holding of the poorest quintile is around half of their population share (10.6 percent of income holding vs. 20 percent quintile population share: that is, the poorest 20 percent of the population share in 10.6 percent of the income) and remained unchanged between 2010 and 2012, suggesting no improvement in equality between the two years. Given that spending per student matters and that many children from the northern states have already been excluded from participating in the education system, it is very important for policy makers to institute pro-poor education policies to break the intergenerational poverty trap. The following section employs a benefit incidence analysis to examine the public role in protecting equity.

Figure 27: Income holding per quintile, 2010 and 2012

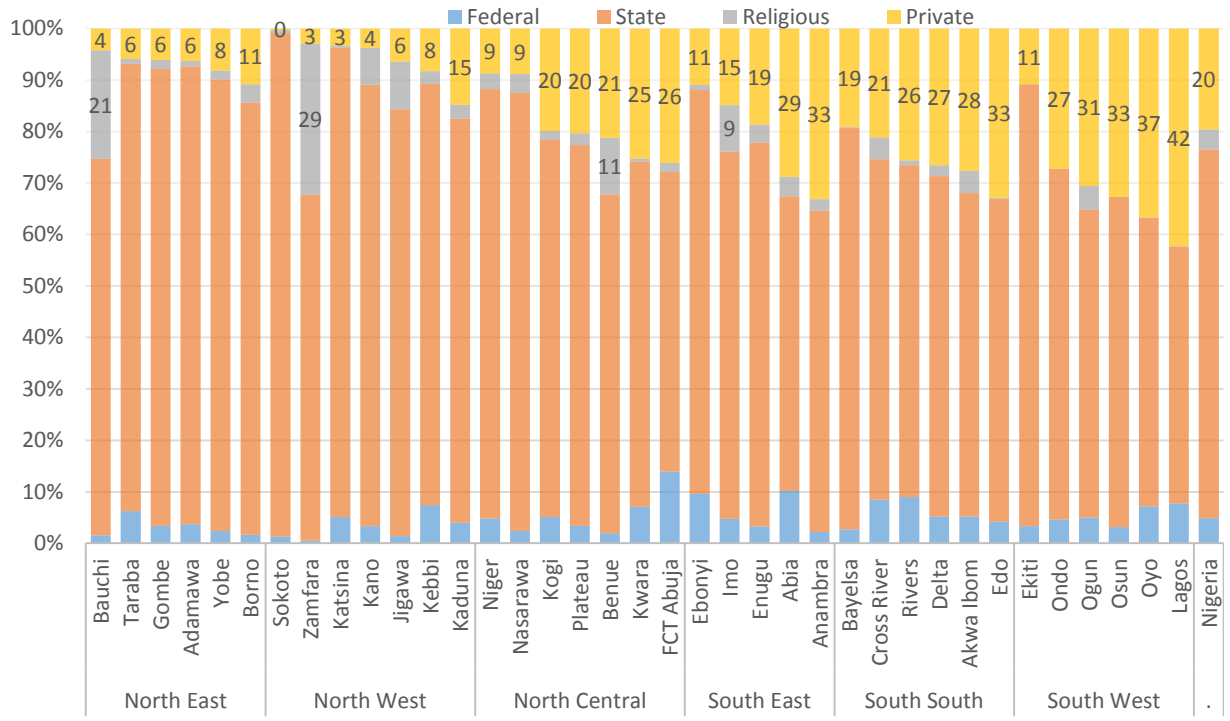


Source: Authors' estimate General Household Survey Panel 2010/11 and 2012/13

Role of private providers and equity in basic education

119. **Private schools are key players in the provision of education in southern states, and thus contribute to the access gap between the north and the south**. Figure 28 shows enrollment of children age 6-14 at the basic education level by type of provider, divided into four categories: (i) Federal, which includes Unity Colleges (federal secondary schools) and some special schools across all states, (ii) state and LGA which are combined as some basic education level schools are managed both by state and LGA, (iii) private schools, and (iv) religious schools. Overall in Nigeria, the majority of basic education schools are under state/LGA management (72 percent), followed by the private sector (20 percent) and federal schools (5 percent), while religious schools only account for 4 percent. In general, religious schools tend to be more prevalent in the north while private schools are more common in the south. In the southern states, private provision of education ranges between 11 to 42 percent, while only 7 northern states registered enrollment rates above 10 percent in the private sector. Only three northern states (Kano, Bauchi and Benue) registered more than 10 percent of enrollment in private schools while in the south, only one state, Imo had a high participation rate for the zone with 9 percent enrollment in private schools.

Figure 28: Enrollment by school management types, federal, state/LGA, religious and private providers



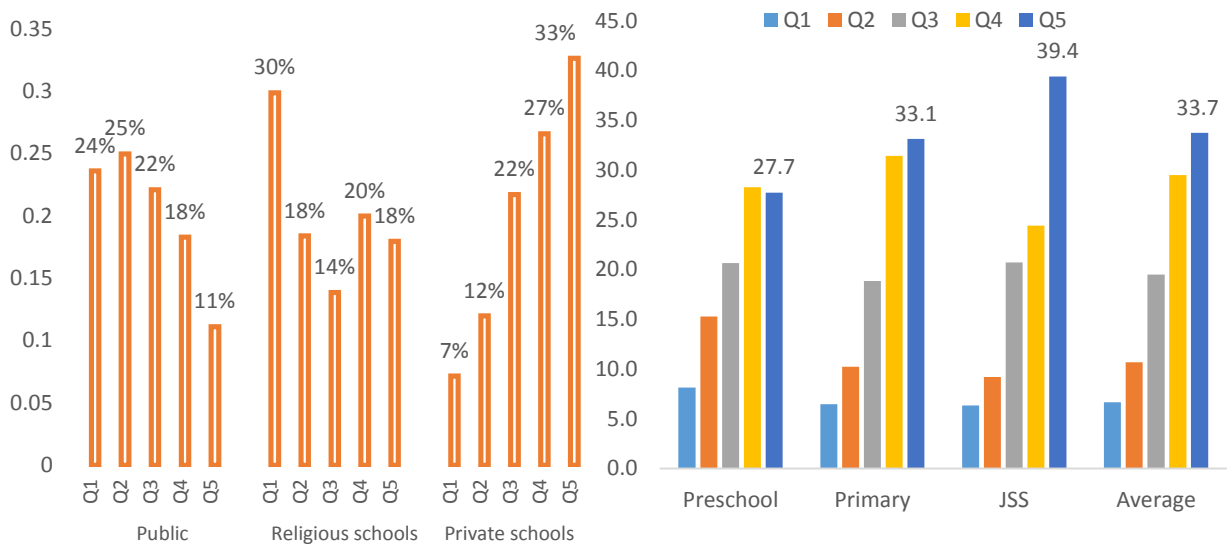
Source: Authors' estimate based on General Household Survey 2010/11

120. **Uneven provision of private schools in Nigeria contributes to the zonal disparities in terms of access**. Annex B, Figure B9 shows the primary GER and share of private school provision by state. The figure indicates that states with high private provision are associated with higher access rates. Most states with primary GER above 95 percent have at least 10 percent of private school enrollment. In general, provision of private schools has been encouraged since (i) it provides alternatives for affluent households who may prefer higher quality education offered in some private institutions, and (ii) it eases the burden on the public sector and allows for greater access for the poor to public schools. While the growth of the private sector provision is, in general, associated with wealthier households and their willingness to pay for generally more expensive private services, many countries are encouraging private or religious providers' participation in order to help broaden access, offer better services and provide greater coverage. For example, a recent 2014 report "The Role and Impact of Private Schools in Developing Countries" released by the United Kingdom's Department for International Development (DFID), argues for a paradigm shift in favor of low-cost private provision to improve equity through provision of services in remote places and to reach the poorest families.[68] In Nigeria, the government has not been able to fully harness the potential of private providers in increasing access to education in a way that focuses on increasing equity and reducing disparities.

[68] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/307032/Private-schools-2014.pdf

121. **Private schools in Nigeria tend to provide services for affluent families while religious schools and public schools are important providers for the poor.** Figure 29 shows education provision of public, religious and private schools by income quintile (left) and provision of private schools by level of education(right). Enrollment in the private school system at all levels of education (pre-school to junior secondary) is dominated by children from wealthier families. Enrollment in the religious schools tends to be slightly higher among children from poor families. Likewise, enrollment in public schools tends to accommodate children from poorer families at the basic education level. Poor families tend to be associated with larger family sizes, increasing the share of children from the poorer families using public services. In particular, as shown in Figure 28 above, most of the children from the northern states use public services.

Figure 29: Education provision by type (left) and level of education (right) for each income quintile, (%)



Source: Authors' estimate based on General Household Survey 2010/11

122. **In the states where school access rates are high, poor families use public resources the most**. Annex B, Figure B 10 in annex shows the relationship between the gross primary enrollment rate and share of the poorest quintile enrolled in public schools. It shows that in those states with high enrollment rates, poor families rely on public school provision the most. As shown earlier, high access rates among the southern states are in part facilitated by the provision of private schools for affluent families, creating more opportunity for the poor to use public services. However, this is not the case in the north where access is very limited. This implies that encouraging private providers in the north would allow children from wealthier quintiles there to attend private schools, freeing up public resources that could be channeled towards poorer families and improve overall access. Provision of private schools in such a fragmented manner, however, undermines the efficient planning of education finance, leading to various large discrepancies in public spending across states. The following section shares some of the implications of this variation, including unit cost variation by state, rationale for private provision, and public role in protecting equity.

123. **In light of the key role that non-public service delivery providers play in the education sector, the government lacks a clear strategy and guidelines for partnership**. The lack of clear policy guidelines and lack of enforcement of rules and regulations regarding how private schools should operate in Nigeria is a clear source of misconduct and failure for some private schools, even encouraging practices such as academic fraud. Such schools tend to use cheap and unqualified teachers, exploiting the failures and instability in the public school system and even appealing to cultural sensibilities within the Nigerian population. These issues have been well recognized by policymakers; for example, the FMOE (2012) stated "the poor monitoring of private schools across the country poses the risk of abuse by profiteering private providers. It is therefore important to revisit the policy on private education provision and review the nature of state collaboration with these non-state providers to strengthen and streamline education provision across the country," but little action has been taken. In states where provision by private schools is high, the legal framework governing the sector is not conducive to attracting participation though formal channels (formal registration). For example, in Lagos state, regulatory requirements are so high that many private schools may prefer to avoid registering all together.[69] However, for the religious schools several actions have been underway under the UBEC intervention fund. For example, federal and state governments are committed to maintain efforts to integrate Qur'anic schools through the UBEC Integrated Qur'anic Teaching and Education (IQTE) program as well as efforts to establish integrated Islamiyya schools where an integrated curriculum with a combination of secular and religious subjects is taught.[70]

124. **The institutional framework set up by the UBE Act has also failed to provide for adequate supervision of private schools. Moreover, private schools are relatively very efficient in terms of costs but, as mentioned earlier, the UBEC policy intervention does not have a clear vision for mobilizing the private sector to foster alternative provision of service delivery in education**. Given that private schools play a major role in increasing access to education, especially in the south, and given the value added they bring to service delivery in education, the UBEC intervention fund should ensure this channel of service delivery is also exploited. Annex B, Figure B11 in annex B shows that the out-of-school rate is inversely related to the share of private school enrollment. This implies that without the presence of private school provision in the south, the burden on the government and the outcome in terms of efficiency would perhaps be closer to the current situation in the north. But the key difference is that the poverty status of the north is much worse than that of the south and, therefore, households from the north may not be able to afford the private school fees. It is also clear that while private school attendees clearly perform better on exams, there is very limited guidance for the private sector providers. Given their relative autonomy, government does not tend to reflect on the role of the private sector in the states during resource allocation decisions. The fact that the UBEC policy intervention fund shares resources equally among all states regardless of the need level is clear evidence of the lack of sound and effective management of the role of private schools in the wider education system. In addition, given that private schools are cheaper to operate than public schools, government could use

[69] In Lagos states for example, prospective proprietors must have a minimum of 5 classrooms, including special rooms such as library, sickbay, and administrative office computer room. A minimum of eight (8) toilets for students and at least two (2) toilets for teachers must be made available, as well as adequate instructional materials and furniture for both teachers and students, laboratories for physics, chemistry, intro-tech, biology, and a fine arts studio (Härmä, 2013).

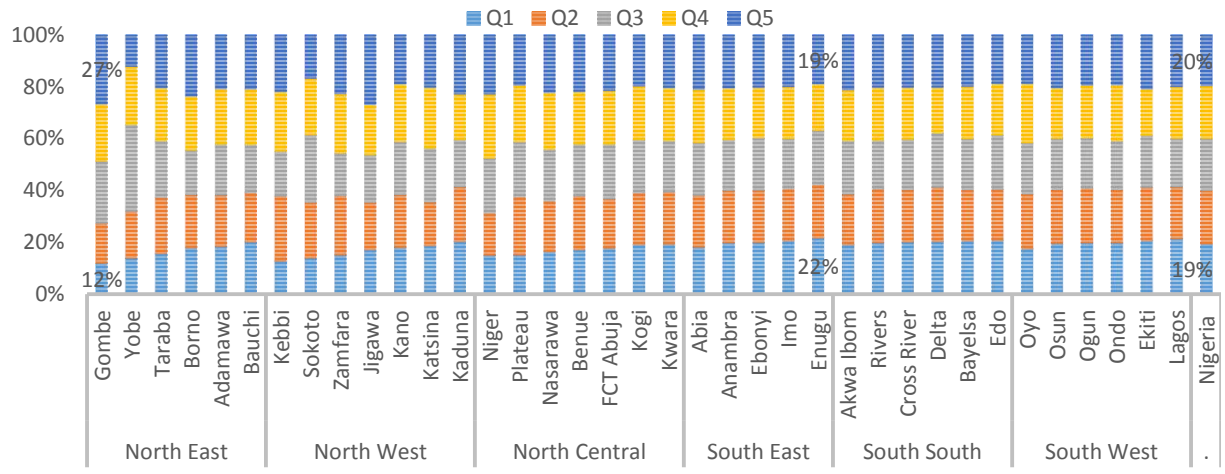
[70] World Bank, 2015(d).

this advantage to promote a scaling up of access in the northern part of the country as an alternative to federal intervention. The issue will be further developed as part of the policy recommendations below.

Constraints on the federal government in protecting equity[71]

125. **At the national level, public spending in basic education is poverty neutral but given that decisions are made at the state level, equity in access to public resources varies by state.** Figure 30 shows the distribution of public spending across quintiles by state. A detailed description of the benefits incidence analysis (BIA) methodology is presented in Annex E (Annex E1) and this section summarizes the main findings. In some states, especially in the south, public spending tends to be allocated across each income quintile in equal measure, while in the other states, particularly in the north, spending tends to be pro-rich. The analysis of public spending on basic education for the country as a whole shows that the poorest quintile receives almost as much as their proportion share of population (19 percent) suggesting that the average public spending at national level is close to being equitable. However, as mentioned above, some states demonstrate various degrees of bias towards the rich in public spending on basic education. At the state level, the share of benefits that go to the lowest quintile varies greatly ranging from 12 percent in Gombe to 22 percent in Enugu. The corresponding figures for the richest quintile are 27 percent and 19 percent, respectively for Gombe and Enugu states. This implies that public spending in Gombe state is highly inequitable, disfavoring the poor while Enugu shows a slight pro-poor spending pattern. Overall, in all northern states except for Bauchi and Kaduna, the poorest households benefit less from public spending, that is, the lowest quintile receives less public benefits than their population share (20 percent). In contrast, public spending in the southern part of the country tends to be generally pro-poor except in the three states (Abia, Awka Ibom and Oyo).

Figure 30: Benefits incidence analysis of public spending on basic education by geographical zone



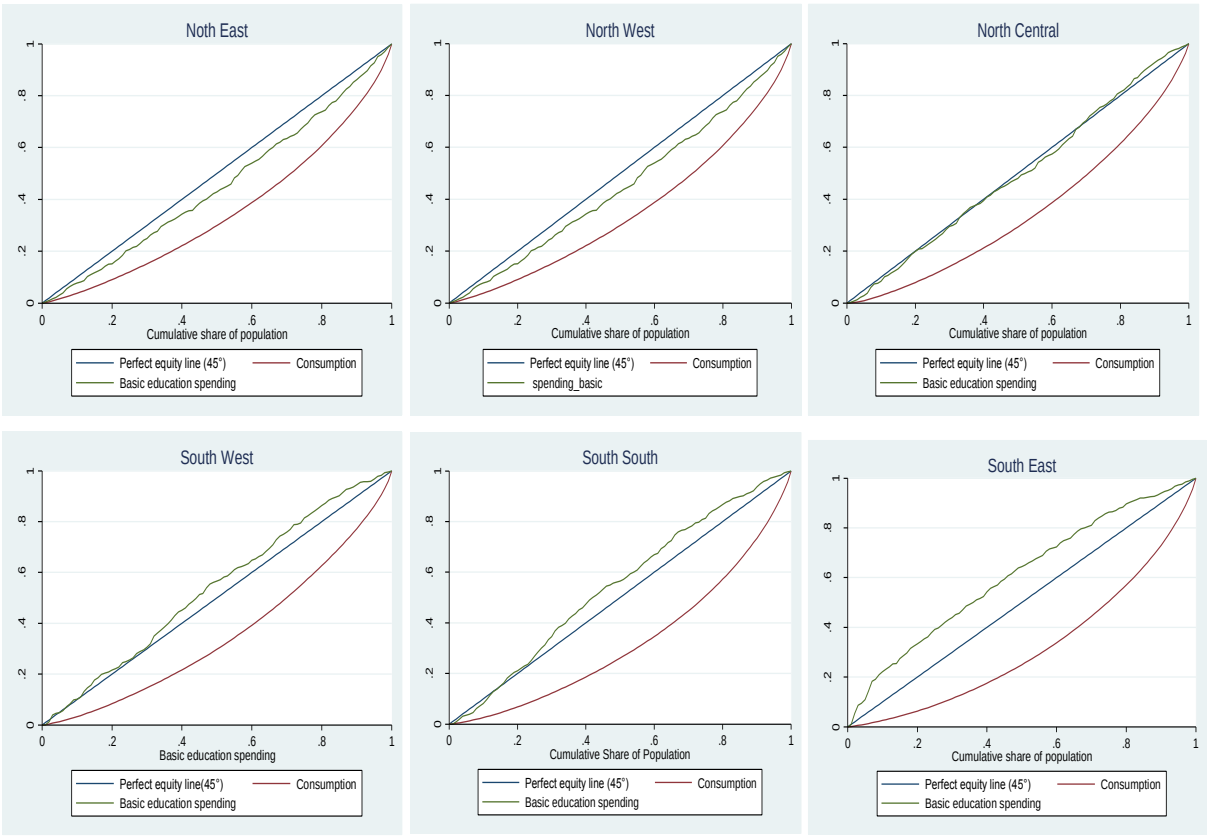
Source: Authors' estimate from CBN, OECD, Nigeria, State Budget, Federal Government Budget, and General Household Survey Panel 2010/11

[71] The concept of benefit incidence analysis (BIA) was originally pioneered in studies by Gillespie on Canada 1965, and extended to the developing countries context by Meerman (1979) on Columbia, and Seloswski (1979) on Malaysia and in its modern stage by Need (1995), Selden and Wasylenko (1992), Sahn and Yonger (1999) on Africa, Demery (2000).

126. **Although income inequality is higher than inequality in education spending, the northern zones are clearly pro-rich in their spending while the southern ones tend to demonstrate pro-poor spending.** A BIA is presented in an alternative way using the concentration curve to evaluate the targeting of government subsidies. Figure 31 presents the BIA results for the six geographic zones. This also includes the consumption concentration curve, which is a proxy for the general wealth and income inequality across quintiles. In general, public spending on education is pro-poor if the concentration curve for education is above the 45-degree line.[72] The result shows that the concentration curve for basic education spending is just above the line of perfect equity in the three southern states while in the three northern states basic education spending is entirely below the line of equity. This suggests that public spending in education in the Nigeria favors the relatively wealthier households in the northern part of the country while it favors the poor in the southern part of the country. In addition, the fact that the education spending curve is above the concentration curve in all zones implies that, the benefits of public expenditure in basic education are relatively more biased towards the poor than the distribution of income. It is also worthwhile to note that, while public spending at the basic education level is not pro-poor in the north per se, spending in basic education promotes greater equality than the general observed income inequality.

[72] The Lorenz curve is a graphical interpretation of the cumulative distribution of income on the vertical axis against the cumulative distribution of population on the horizontal axis. Spending is pro-poor if the poor receive more of the program's benefits than the non-poor and more than their share of the population; graphically this line appears above the diagonal since the 45° line indicates that each quintile in the distribution is receiving the same share, or in other words, each quintile (which represents 20 percent of the population) would receive 20 percent of spending. Not-pro-poor but progressive is if the non-poor receive more than the poor, but still the poor receive a share larger than their share of consumption; graphically this line appears below the diagonal but above the Lorenz curve. Not-pro-poor and regressive occurs if the non-poor receive more than the poor, and the share of the poor is less than their share of consumption; graphically this line appears below the diagonal and below the Lorenz curve.

Figure 31: Lorenz Curve for Household consumption expenditure and public spending on education by geographical zone



Source: Authors' estimate from CBN, OECD, Nigeria, State Budget, Federal Government Budget, and General Household Survey Panel 2010/11

Factors that affect school participation

127. **In addition to disparities in public spending, there are other key factors that affect education participation and outcomes.** Several econometric models are employed to investigate how demand and supply side factors affect the probability of school participation (full results are presented in Annex B). The following are key supply side factors used in the analysis: (i) public spending on education at the state level measured in terms of per student spending (unit cost) which allows us to determine whether there is a shortage of public resources devoted to basic education at the state level, and (ii) state total revenue per official school-age child which is a proxy for the financial constraints facing the state in the provision of education. The first analysis is used to determine whether finance really matters in Nigeria. The following are demand side factors included in the model[73]: (i) household head education, gender, sex and sector of employment, (ii) household wealth status and family size, (iii) prevalence of conflicts, (iv) areas of residence, (v) child sex and age, and (vi) household spending per child. In summary, the result shows that (i) three supply side financial indicators, total public spending, state

[73] Note that religion was deliberately excluded from the determinants as it is strongly correlated with the north and south geographic divide.

revenue and household spending, are strong predictors of children's school participation, with state revenue and household spending having the two largest effects on education outcomes, (ii) from demand side factors, while household head education is the most predominant determinant of schooling, all other factors such as household head sector of activity, wealth status, areas of residence, head age, household size and children age and gender also play crucial roles in schooling decisions, (iii) analysis of the model separately between the northern and southern parts of the country shows that all supply and demand side factors listed above have a strong influence in the north while household spending and education of household head seems to matter the most in the south and (iv) finally, the decomposition results under the four categories (north vs. south, urban vs. rural, male vs. female and poorest vs. richest) show that the endowment (or explained factors) plays a significant role in explaining the difference across the four categories.

128. **As indicated, despite the fact that public spending is a key factor in determining school participation, the analysis clearly highlights that children from poor households face resource shortages and that public funds are not equally available for all Nigerian children, as stipulated in the UBE Act.** In practical terms, the constitutional breakdown of responsibilities, as reflected in the mandated formula for resource mobilization and reallocation, has been difficult to implement. Although several criteria are used to determine the amount allocated to each state and local government from the Federation Account, including consideration of inequalities, in practice this is not happening. For example, the government is constrained in its ability to direct the UBE intervention funds to the areas where the need is highest due to political sensitivities and rigidities in the system. As a result, UBE funds are distributed almost entirely equally across states. Information gathered from the education services delivery value chain also confirms that funding is one of the key challenges for basic education, leading to calls for increases in funding as a possible solution to service delivery issues. Policy inconsistency is also referred to as another key challenge area, which is mostly connected to states' willingness, or lack of willingness, to implement national policy such as the UBE law. Box 5 Summarizes key challenges of the basic education subsector in terms of problems, and offers possible solutions.

Box 5: Key challenges and possible solutions proposed by policy makers

Policymakers concur that inadequacy of funding and poor levels of teacher qualifications are among the top challenges of the education sector. The table below shows the response from the three groups of administrative representatives attending the first workshop held on these issues, in response to the question asking them to list the top five key challenges in the education sector and possible solutions for the government to consider. The result is a group discussion output, which was sorted in order of importance. The group discussion was structured around key discussion topics on (i) Institutional Effectiveness, (ii) Accountability, and (iii) Fiduciary Integrity. The responses were, naturally, guided and informed by the role of the respondent within the responsibilities of the administration system. For example, among the commissioner/permanent secretary group of respondents, the main issue and solutions flagged were related to finance. Similarly, for the director's group, planning and policy inconsistencies were identified as the key challenges, while the data-driven NEMIS group picked availability of data as one of the key challenges. Overall three areas were flagged as the main cross-cutting issues: (i) finance, (ii) teachers, and (iii) consistency of policy implementation. This finding is consistent with issues identified as key determinants of learning outcomes in basic education above, which suggests that policymakers are very much aware of the issues that that affect learning outcomes.

Commissioners and Permanent Secretary Group	Directors	NEMIS officers
List five top challenges in order of severity		
1. Inadequate funding 2. Lack of qualified teachers 3. Proliferation of private schools 4. Inadequate infrastructure 5. Policy inconsistencies	1.Policy inconsistencies 2.Inadequate professional personnel 3. Poor learning environment 4. Inadequate funding 5. Poor monitoring and evaluation	1. Number of teachers/Qualified 2. Funding 3. Data 4. Infrastructure 5. Political Will/influence
Propose five top actions the government should take to address the challenge		
1. Adequate funding 2. Recruitment of teachers/sustained capacity building 3. Effective monitoring of schools and sanctions 4. Provision of adequate infrastructure 5. Consistency in policy implementation	1. Recruitment, re-training 2. Adequate funding/better management 3. Training, budget and facilities 4. Funding and Good standards 5. Sensitization of policy makers	1. Consistency in policy 2. Training and re-training 3. Provision of child friendly environment 4. Provision of adequate funding 5. Effective monitoring and evaluation

Source: Qualitative data from state representative workshop

Efficiency of resource utilization and implication of drop in oil price

129. **While the equity analysis highlights the fact that resources are not equally distributed, in particular given that less is spent per child on education in the north, this section investigates whether the available resources are efficiently and effectively utilized**. As such, this section covers the following: (i), an analysis of the efficient utilization of resources using the Data Envelopment Analysis (DEA) model, (ii) an analysis identifying the states with potential to expand access through efficiency improvement and those that require additional help, and (iii) an estimate of the amounts needed to accommodate the out-of-school children, in terms of both additional students waiting to be accommodated and associated costs, and the additional implied teacher requirement, also in terms of

numbers and associated costs. Given the recent developments in the oil market and Nigeria's heavy reliance on oil revenue, efficient utilization of resources is all the more necessary.

130. **The main purpose of the DEA model is to analyze how different states utilize the available resources available to them in light of their associated education outcomes**. In other words, the analysis seeks to identify those states that are able to generate the best educational outcomes relative to their means. We used 7 inputs and 4 outputs for the efficiency score calculation. The input variables include public expenditure, household spending, total teachers, share of qualified teachers, total number of schools, total classrooms, and share of good classrooms. The output variables include: GER (both for primary and junior secondary), percentage of out-of-school children, NER (primary and junior secondary), and gender parity ratio (primary and junior secondary). The methodological framework and descriptive statistics for all input and output variables are displayed in Annex (Annex B).

131. **The overall result of the DEA model shows that the efficiency score varies from 32 percent in Sokoto to 90 percent in Ebonyi state.**[74] Figure 32 shows the efficiency score by state and identifies the states that need additional resources after accounting for optimal use of the existing resources. Most states in the north are associated with a low efficiency score such as Sokoto, Katsina, Benue and Niger, each with an efficiency score below 50 percent while at least some high efficiency scores are observed across all the geographic zones. This is particularly consistent with the high out-of-school rate in the North East and North West zones given that the existing resources only serve few school-age children since there is a high out-of-school incidence. It should be noted that the DEA result is a relative comparison model and therefore, it does not mean that states with high efficiency scores are efficient in absolute terms, or that those with low efficiency are inefficient in absolute terms. Rather, this should be seen as a measure of relative efficiency of one state compared to another. This could also be used as a benchmark of good practice for south-south knowledge exchange on efficiency improvement.

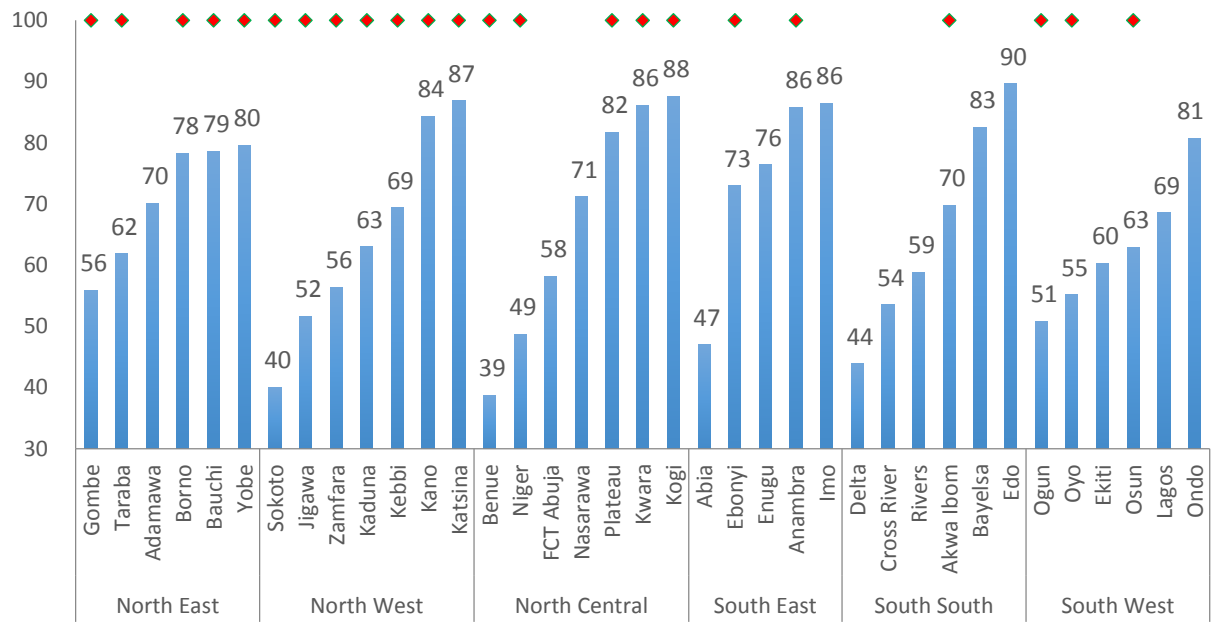
132. **Overall, the efficiency level in Nigeria's public basic education system is about 75 percent, which implies that there is a room for efficiency improvement.** An average efficiency score of 75 percent implies that 25 percent of resources could have been saved if all states were as efficient as the relatively most efficient state among them. In other words, the same level of education outcomes could be achieved with about 25 percent less resources if all states were as efficient as the most efficient states in Nigeria.

133. **After accounting for the optimal utilization of resources, the DEA analysis suggest that most of the northern states need additional resources in order to provide full access to all children while only a few states in the south need such help**. The estimate shows that from 19 northern states, 17 need additional resources in order to achieve full access while only 6 of the 17 southern states need help in order achieve full access. It is also important to note that even among the states that need additional resources, the extent of this need varies. The spectrum of additional resources needed is detailed below for each state. The key assumptions considered in determining the needs are summarized as follows:

[74] As stated above the UBEC matching grant fund was not disbursed to Ebonyi state and the high efficiency score is partly explained by low utilization of resources.

- The optimal student teacher ratio (STR), is set at 40:1 for primary education and 25:1 for junior secondary[75]. An STR close to the recommended values indicates, on one hand, adequate number of teachers for all students in the system and on the other, adequate attendance/ capacity of students in each class and is therefore a key determinant of access to schooling. Many states underutilize their resources, such as in Ekiti, Lagos, Cross River, Delta and Enugu in the southern zones with STRs below 25:1 at the primary level, while some northern states have very high rates, such as Kano and Tabara with STRs above 75:1. There are also some northern states with lower STRs, such as Zamfara, Niger, Adamawa, and Borno, and some southern states with relatively high STRs such as Kogi, Anambra, and Akwa Ibom. Similar scenarios are present in junior secondary. Thus, the efficiency improvement (optimal use of exiting STR) implies that those who have lower STRs would increase the STR without additional resources and those above the optimal STR would reduce it to optimal levels.
- The out-of-school rate is assumed to determine how many students need to be accommodated. Note that the total students to be accommodated may be below or above the current number of out-of-school children.
- Public and private household unit costs are used to estimate how much accommodating the out-of-school children would cost.

Figure 32: Efficiency scores and states that needs additional resources



Source: Authors' estimate from CBN, OECD, Nigeria, State Budget, Federal Government Budget, and General Household Survey Panel 2010/11and NEMIS , 2010 to 2012

134. **At the national level, the estimate of additional funding needed to ensure full access in basic education requires a funding increase equivalent to 36 percent of current spending.** Table 2 presents

[75] World Banks empirical studies (2005) indicate that optimal use of STR for secondary is 25:1 and GPE best practice suggests 40:1 for primary education.

the summary of additional children to be accommodated and the associated cost under different scenarios by state. The total number of teachers and students were determined based on the above assumptions about the STR and out-of-school children. We estimated cost under two scenarios: (i) given that basic education is compulsory by law in Nigeria, the cost estimate assumed that the public sector would accommodate all children of official basic education school-age (age 6-14) by covering all costs including full household out-of-pocket expenses, such as learning materials and uniforms (labeled Full cost), and (ii) assuming a free fee policy, the second option considers no school fees but does not account for households' other non-fee education costs (labeled public + HH fees). The last column of the table (share of current spending) is estimated based on the second scenario (i.e. including only fees paid by households to the total cost of schooling).

135. **Although the estimate shows that 23 of the 37 states (including F.C.T. Abuja) need some level of additional help, the extent of financial support needed as a share of their current spending ranges from 1 percent in Kwara to 149 percent in Kogi state.** Almost all states demonstrating additional funding needs are from the north with the exception of five states in the south, although the latter have comparatively low needs. While this exercise calculates the financial cost associated with ensuring full access to basic education, all things being equal, given that the main reason for out-of-school children is not a financial one, additional funding might be needed to address the other socio-economic issues that hinder schooling. For example, although opportunity cost is not a main reason at the national level, there are some states where it matters and in such cases a financial boost would help. In other states where parent education is the main issue, arrangements of an alternative education system or second chance schooling may be needed, which often costs more than formal schooling as it involves high opportunity costs for prospective students. Similarly, in states where parents and children do not place a high premium on education because they do not see the returns to education, more awareness campaigns might be needed along with clear economic plans to develop the labor market to create clear opportunities for children graduating from the education system. Thus, the cost estimate in this exercise is a minimum requirement benchmark rather than what is actually needed to truly engage in reform. The summary section will provide specific implications and priorities including those stemming from the equity and quality sections of this report.

136. **Overall, the national STR indicates that Nigeria is in line with the recommended GPE STR level of 40:1 at the primary level, but the variation by state is large.** The national junior secondary STR was 33:1, compared to the SSA average of 25:1. Annex B, Figure B12 shows STR by zone for both primary and junior secondary levels of education. The primary STR was the highest in the South East and South West with STRs of 50 and 42, respectively, while the North East (38) and North West (37) had STRs slightly below the recommended levels for the primary level. Given the high incidence of out-of-school children in the northern states, it is not entirely surprising that the STR levels tend to be relatively lower in the north but differences within each zone and within each state need to be tracked. With respect to within-state differences, for example, in Kano, STR at the LGA level ranges from a low of 26 to 90 with an average of 46. On the other hand at the junior secondary level, the STR in the North East (45:1) and North West (46:1) tends to be much higher than the national average and much higher than in the southern zone. This is mostly indicative of the lack of teachers at this level of education. In fact, although the north accounts for about 52 percent of all enrolled students in junior secondary, only about 43 percent of all junior secondary teachers are located in the northern states. This clearly shows

that further analysis is required to provide an accurate cost estimate to arrive at the indicated number of teachers.

137. **When accounting for all school-age children within the primary and junior secondary school-age, the adjusted STRs indicate that the current teaching staff resources are not adequate to accommodate all children, especially in the North East and North West.** Annex B, Figure B13 shows the adjusted STR for all school-age children only, meaning for children aged 6-11 for primary level and 12-14 for junior secondary. The national average for the adjusted STR indicates that, ignoring the overage issue, if all school-age children were to be absorbed into the education system in Nigeria, the STR at the primary level would be about 54:1 while at the junior secondary it would be 68:1, both higher than the GPE recommended levels of 40:1 and 25:1, respectively. The inadequacy of the current resources highlights the current supply side barriers facing the education system, in particular the difficulty the system would face in accommodating out-of-school children, should they be able to join. This inadequacy is particularly strong in the north, where the adjusted STR at the primary level was about 48:1 in the North East and 61:1 in the North West and 101:1 and 119:1, respectively, at the junior secondary level.

Table 2 : States need extra help to leverage out-of-school children with optimal STR 40:1 at primary schools

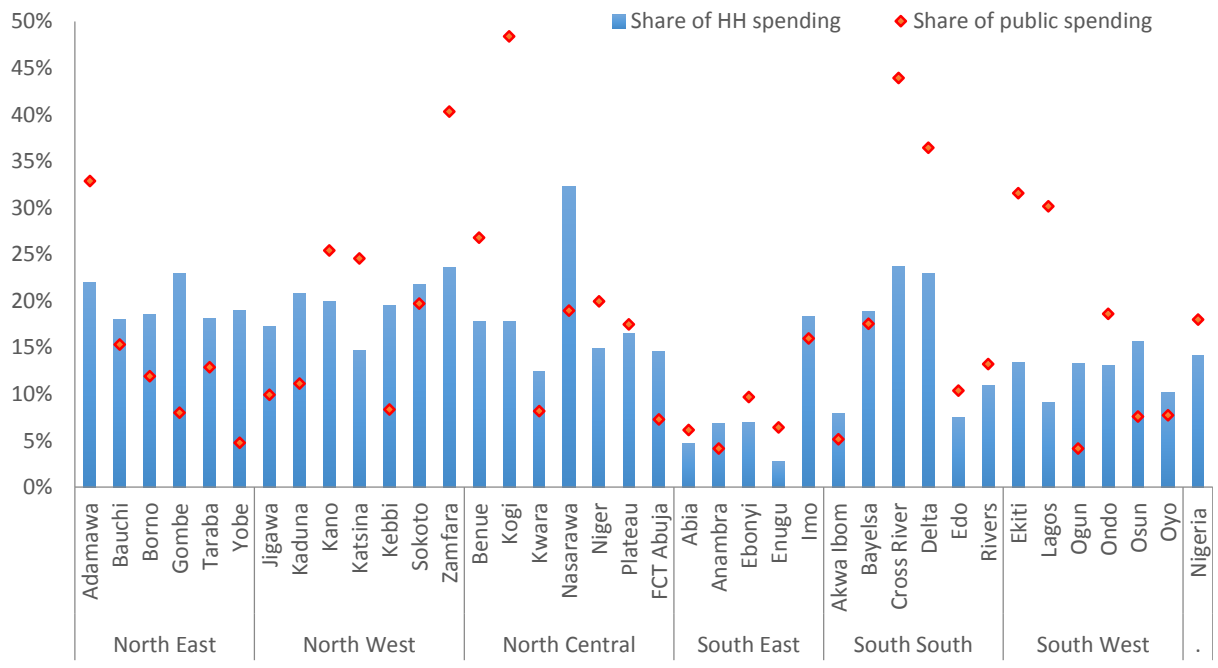
		Needs		Cost in Billions of Naira			
zone	State	Students	Teachers	Full cost	Public + HH fees	Total current spending	Share of need under fee
North Central	Benue	21,537	538	1	1	22.1	3%
	Plateau	414,325	10,358	13	12	15.2	78%
	Niger	76,890	1,922	2	2	17.6	11%
	Kogi	586,645	14,666	39	37	20.3	184%
North East	Borno	253,976	6,349	8	8	18.6	42%
	Gombe	309,774	7,744	3	2	9.6	24%
	Taraba	79,660	1,991	2	2	16.1	10%
	Yobe	946,069	23,652	23	21	11.3	185%
	Bauchi	739,927	18,498	22	21	27.6	75%
North West	Jigawa	857,799	21,445	12	10	16.2	63%
	Zamfara	603,738	15,093	18	17	9.2	188%
	Sokoto	557,601	13,940	18	15	15.4	98%
	Kebbi	588,186	14,705	10	8	14.6	56%
	Katsina	1,614,828	40,371	77	74	27.9	265%
	Kaduna	229,215	5,730	3	3	27.8	10%
	Kano	1,330,834	33,271	27	25	32.2	76%
South East	Ebonyi	22,282	557	0	0	8.4	5%
	Anambra	433,754	10,844	9	6	13.7	47%
South South	Akwa Ibom	438,055	10,951	14	12	26.8	45%
	Oyo	228,490	5,712	9	6	23.0	28%
	Nigeria	10,333,584	258,340	309.23	282.57	673	42%

Source: Authors' estimate from CBN, OECD, Nigeria, State Budget, Federal Government Budget, and General Household Survey Panel 2010/11 and NEMIS 2010-2012

138. **Lack of consistency in the enforcement of the UBE law has also contributed to internal inefficiency in the education system.** Although Nigeria has invested heavily in M&E systems and

quality assurance, at times with duplicate efforts, the country still suffers from the loss of already scarce resources through internal inefficiency. In particular, the incidence of repetition and dropout at the basic education level corresponds to a public deadweight loss equivalent to 18 percent of total public spending and 14 percent of household spending. Figure 33 presents the cost of repetition and dropout as a share of (i) total public spending, and (ii) household spending on basic education. Although Nigeria has an automatic promotion policy, repetition and delayed entry leads to overage enrollment, which also factors into why students tend to dropout prior to completion. The associated cost was calculated using the number of dropouts and repetitions per year at the basic education level and was based on the unit costs of public and private per student payment. In particular, the cost was estimated from the total number of repeaters and based on per student annual unit cost in public schools. Note that due to the lack of significant returns to education in the northern states, the discounted value of forgone opportunity in terms of expected earnings – is not included into the estimate. However, from the current estimate, it is clear that given the already strained budget for some states, wastage of resources due to internal inefficiency represents a significant loss to the sector, one that could be saved and redirected to productive investments instead. Reducing repetition not only improves the internal efficiency but also leads to better completion rates and better lifetime earnings prospects. This is a key area where the states, particularly those with very tight budgets, can create some room to enable expansion of access to education.

Figure 33: Repetition and dropout cost as a share of total household spending and total public spending at basic level of education

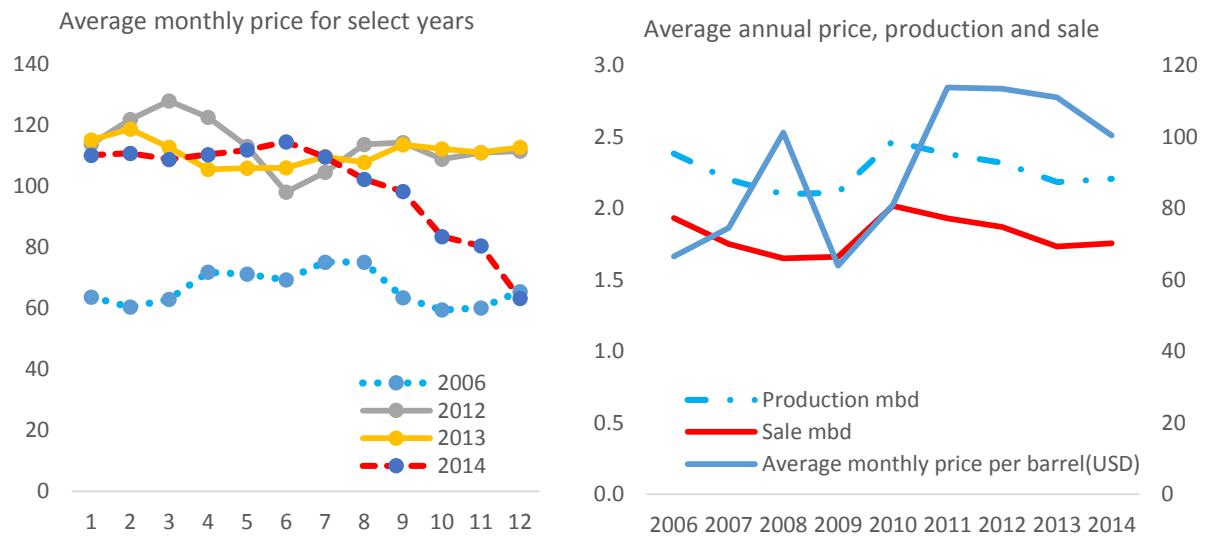


Source: Authors' estimate from CBN, State Budget, Federal Government Budget, and General Household Survey Panel 2010/11

139. **The current drop in oil prices, Nigeria's main source of revenue, has direct implications for the sustainability of basic education spending and provides a strong rationale for greater efficiency in**

utilization of the existing resources. This study covered data from 2009-2014 given that there is a lack of complete data from the post-price-drop period. Figure 34 shows average monthly oil prices for select years from 2006 to 2014 and trends of average production, sale and price between 2006 and 2014. The result shows that although the price between 2011 and 2013 remained almost constant, the sale and production figures decreased slightly. This implies that with the current sales and production trends, increase in production to overcome the revenue drop due to drop in the price oil is unlikely. This could be justified by limitation of the capacity to increase production at least in the short run and is highly likely to affect budget sources especially for social sectors given the already tight budget and limited availability of spending on education.

Figure 34: Oil price pattern (left) and trends in annual price, production and sale (right)

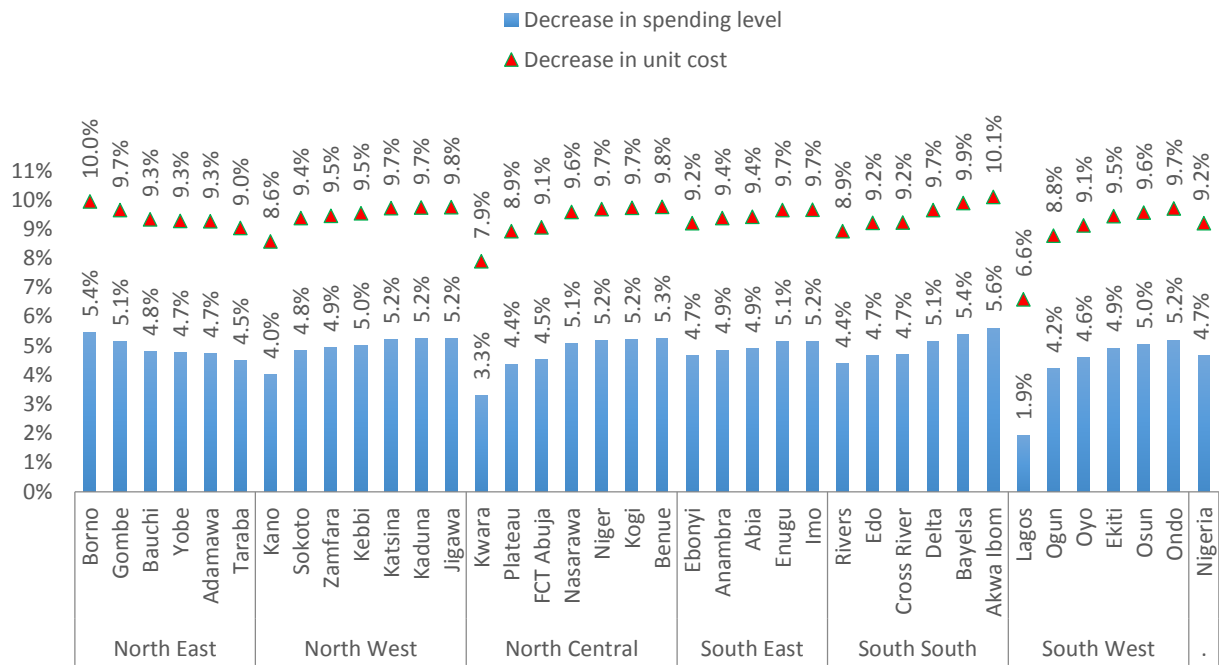


Source: CBN, 2014

140. **The estimated cost of the oil price drop on the basic education sector at the national level has been a 5 percent cut in total spending on basic education and 9 percent of resources allocated per students and it greatly varies by state.** Figure 35 shows the effect of the oil price drop in the second half of 2014 on basic education spending by state. The estimate is based on the average oil price in 2014, although the price fall was observed especially in the second half of the year. If the oil price remains at current depressed levels the effect on basic education spending at the national level will lead to a 25 percent cut in the basic education budget which is associated with about a 29 percent drop in resources available per student (unit cost). It is apparent that the effect is much more severe in states which heavily depend on federal allocations, implying that states with better IGR patterns face a smaller decrease. For example, Lagos, whose internal revenue share accounts for more than half of its total education budget, the effect was only a 2 percent budget cut based on the 2014 average and 10 percent if the oil price continues at the current price during the upcoming years. In contrast, states such as Borno, which heavily depend on oil revenue either because, like Akwa Ibom, they are oil producers, or because they depend heavily on this source due to a lack of other IGR, face large cuts to their education budget. Given that there was already low spending on the education sector in the favorable

macroeconomic environment, the current trend of dropping oil prices strongly suggests the need for improvement of efficiency of resource utilization to cope with the challenges.

Figure 35: Effect of oil price drop on education spending by state



Sources: Authors; estimation based on CBN oil prices and spending estimated above

Challenges of uniform UBE provision and implementation of UBEC intervention funds

141. **The institutional framework set up by the UBE Act of 2004 has succeeded in promoting a fair level of policy alignment and coordination between the federal and the state governments. However, it suffers from weak accountability mechanisms—political, managerial and professional—which prevent it from achieving stated policy objectives.** Since UBEC manages funds belonging to the federation (and not transferred from the budget of the federal government), it should be accountable to the state and federal governments together. During the program's 10 years of existence, no evaluation has been conducted to assess whether the program works or not, including no assessment of the various changes that were made to the UBEC requirements, for example the change from a 70 to a 50 percent matching requirement.

142. **Federal resource allocation aims at political equity (by granting each state the same share of the whole) without consideration for financing needs, absorption capacity (including their own financial capacity) or policy performance at the state level.** Lack of intergovernmental coordination in resource mobilization is reflected in the rapidly decreasing disbursement rate of these fiscal transfers. In particular, the matching grant component, which takes the highest share of the UBEC program, changed its matching requirements from 70 percent in 2004 to 50 percent in 2010 without any assessment to support this change. The change is largely a political move as many states were not willing to meet the requirement to match 70 percent of the funds disbursed by UBEC. As it faced resistance,

UBEC entered into negotiations with the states and agreed to lower their obligation to a 50 percent matching requirement, as well as to establish a loan arrangement with a local commercial bank for collateral funds for UBEC fund release. However, although UBEC gradually relaxed the rules, most of the states tend to see UBEC intervention as a challenge to their constitutional rights, which means that the conflict in this aspect is still ongoing. Another source of conflict is the fact that UBEC distributes most resources equally to all states, despite the wide spectrum of needs across states and of education performance in enrollment rates, gender parity ratio, learning outcomes etc. Lastly, while states recognize the importance of the UBEC fund, they do not seem convinced that UBEC, which is a centralized program, could ever be more efficient than the states in using the support.

143. **The institutional framework set up by the UBE Act in effect deprives local governments of any significant responsibility in the provision of basic education. It also introduces confusion in secondary school management (as a result of the challenging disarticulation of junior and senior secondary schools).** For example, prior to the UBE Act, the LGAs were responsible for personnel costs within the primary school network but since then personnel costs have been automatically deducted from the LGA allocations at the source for basic education, which in addition to primary level also includes JSS salaries. As per the stipulations under the UBE regulations, the new structure called for the disarticulation of junior secondary schools from senior secondary schools, effectively moving JSS schools under the SUBEB management. Some states were unable to complete the disarticulation process, while others did and still others even went through a re-articulation process, moving junior secondary back under the board of senior secondary management. This unclear division of responsibilities renders UBEC's responsibilities to basic education less obvious. In particular, states tend to believe that UBEC is not helping to achieve the UBE goals and would rather go back to the original management structure.

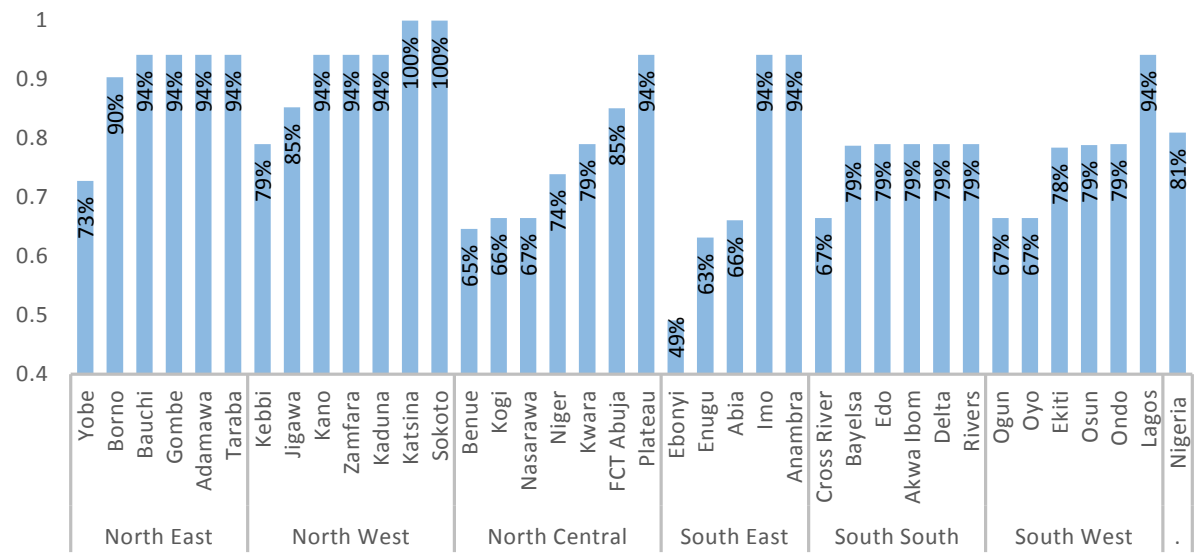
144. **To further understand the issues of disarticulation and the reasons behind the lack of compliance on this aspect of the UBE law, and to better understand the chances of the law being implemented, we carried out interviews at the state ministry of education as well as at the SUBEB level in Edo, Kano, Kogi and Lagos.** The key findings to this question are: (i) Kogi: Lack of adequate funding made total transition impossible. There is already financial pressure on SUBEB to manage the salaries for the schools that fall under their responsibility and the fiscal space does not allow them to accommodate other staff, i.e. incorporate the JSS that are currently still under state administrative and financial management; (ii) Lagos: the state wanted to engage in the management of basic education to ensure the quality of the basic education level and there is no conflict in such arrangements between the state and SUBEB; (iii) Edo: SUBEB cannot manage both Primary and JSS since this represents an overwhelming task given their resources, and while there is no conflict per se, there is a lack of communication between the two managements. For example, SUBEB does not receive any reports or evaluations from the state although they do provide such information on their activities back to the state; and (iv) Kano: JSS management is under SSSMB because the state has re-articulated JSS schools, but SUBEB still has a mandate by virtue of the UBE Act. The overlap creates confusion in the M&E system.

145. **In summary, it is evident that the federal government is unable to assume the additional costs associated with the disarticulation process, which has forced SUBEBs and state ministries of education to find compromises to effectively fund the JSS education level**, despite the stipulations in the UBE Act that made JSS a federal responsibility. An important question is whether these solutions are satisfactory;

it is perhaps preferable to the situation in which, SUBEBs managed JSS schools, assuming they had funding for that purpose. On the other hand if the reason for the messy outcome offered by the four focus states accurately reflects the situation across Nigeria, then it points to a serious problem, since management should cost a fraction of the total teacher salaries. For example, the reason offered by Lagos' MOE is quite plausible, but indicates a fundamental flaw in the elaboration of the UBE legislation: the absence of preliminary negotiations with the states. Such negotiations would have prevented the confusion and complications created by the move to disarticulate, then to re-articulate as in some states, like Kano. The confusion in the system is real and has morphed into formal policy action, leaving states to formulate their own state-specific suitable management approach. In order for the UBE Act to be fully implemented, the current law and its application needs to be investigated, evaluated and updated to ensure the uniformity in the provision of basic education.

146. **In response to questions from some of the states, UBEC has been adjusting the formula for resource allocation in the agreed program including changing the matching grant allocation formula which is mostly motivated by political reasons rather than a problem-driven approach.** For example, in the northern part of the country, infrastructure is a key challenge as observed from large class sizes on top of the high incidence of out-of-school children. In particular, the reduction in the matching grant requirement from 70 to 50 percent did not take into account that the infrastructure needs in the north are far greater than those in the south. In the North East and North West zones, where the infrastructure shortage is the greatest, the matching grant disbursements were all above 80 percent compared with the south where only three states had disbursements above 80 percent (Figure 36).

Figure 36: Percentage of cumulative UBEC matching grant disbursement between 2005 and 2013 by state



Source: UBEC

147. **The question surrounding the frequency of disbursement of UBEC funds has generated some confusion and led to assumptions that UBEC was not releasing funds, when the reality was more complicated**. In particular, although UBEC is expected to release matching grant funds every quarter, it does not necessarily do so at this frequency. Given that each state has different fiscal space and may

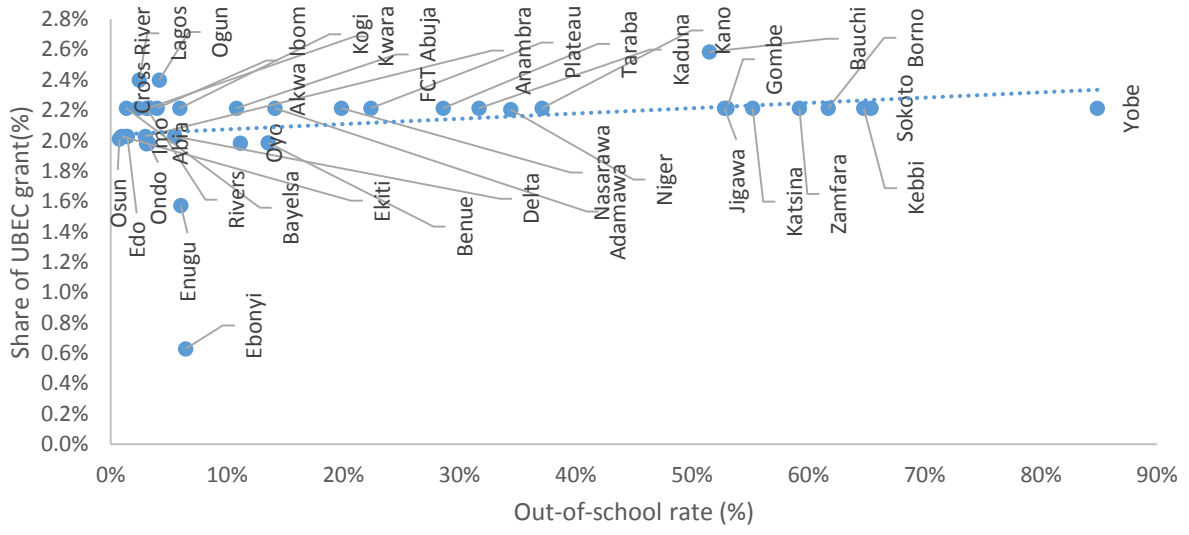
need more time to meet the 50 percent requirement, states are granted a 5-year grace period to provide the funds. Therefore, an annual evaluation of disbursements may be misleading and does not really make sense given the context. There have been more recent discussions by UBEC on reducing the grace period to 2 years and offering increased access to banking facilities for the states to borrow, if they wish, to match the amount. This would also help control potential opportunities for misuse of funds. It is also noteworthy that matching grant funds are off-budget since they are neither in the federal nor the state level budgets.

148. **That said, there are two additional reasons that prevent states from accessing matching grant funds despite UBEC having relaxed the matching requirement from 70 to 50 percent, technically making it easier for states to meet the requirement:** (1) some states (such as Lagos, Edo and Kogi) do not accurately plan for the financial needs over time and do not take into account inflation, displaying institutional inefficiency in managing projects. In Lagos, for example, utilization of funds is affected by inflationary pressures, where the initial cost evaluation of the project may not reflect the actual cost at the implementation stage, making it difficult to complete the initial project phases before requesting the next round of release. This is a problem since one of the conditions for release is the execution of the previous request. In addition, the fact that the slow pace of procurement and construction allows inflation to manifest and translate into higher costs is also in itself a source of inefficiency. (2) How much a state government is willing to commit to the infrastructure fund, and how fast it accesses these funds, depends on political will, and on its stake in education matters. But overall, as stated above, states with a significant need for infrastructure development tend to access matching grants at a higher rate (such as Kano, Bauchi and Anambra).

149. **As indicated above, observations on fund utilization across states reveal that there is a clear lack of evidence-based, problem-driven policy choices; instead policy often appears to be motivated by political considerations.** Different states in Nigeria face different challenges but the UBEC program tends to implement uniform intervention in all states regardless of the need. For example, regarding the share of funds allocated to redress educational imbalances, all funds have been distributed equally to each state. Based on the most complete data year (2011), all states received about 2.2 percent of all allocations, except for a few states that did not tap into their matching grant funds (Ebonyi) or that only collected part of it (Enugu). Figure 37 presents funds disbursed by UBEC in 2011 against the out-of-school rate, which clearly shows the need-blind, equal allocation practice.[76]

[76] We used 2011 disbursement as it represents the most reliable data because of the five-year grace period of matching grant release.

Figure 37: UBEC funding is not aligned to out-of-school or UBEC objective for Universal access



Source: UBEC 2011 an Household Panel Survey 2010/11

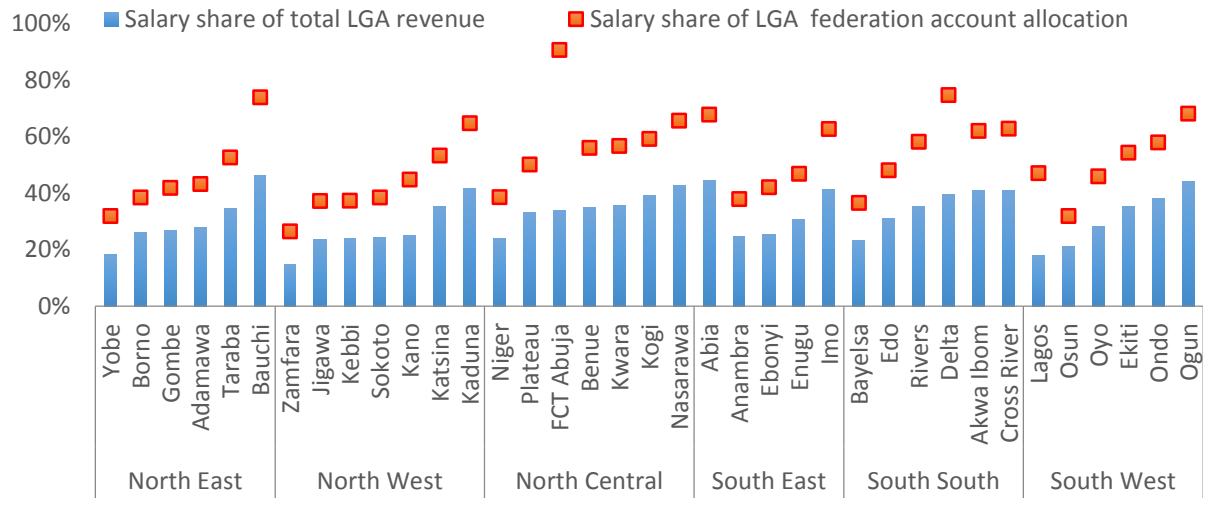
150. **Some aspects of the creation of UBEC and its affiliated programs have been successful and others less so**. The establishment of SBMCs in all basic education institutions in Nigeria is one of the two main potentially successful provisions of the UBE Act, the other success being the establishment of the automation of teachers' salary payment. Although there has been no rigorous impact evaluation of the UBEC program since its inception, there is much evidence showing that automation of salary payment is a key milestone for the UBE law. On the other hand, the evidence is less readily available regarding the SBMCs and its full impact is yet to unfold; most SBMCs were established between 2011 and 2014 and most started their activities between 2012 and 2014. Even though it is too soon to evaluate the effect of SBMCs on basic education service delivery, there are two concerns at this early stage for policymakers to consider: (i) although education is free and compulsory by law it appears that SBMC leaders tend to substitute an informal fee collection for the now abolished formal fee. For example in Kano, schools, through the SBMC, still collect about the same amount from parent contributions as they did before the abolition of fees. In addition, parents with more than one child in school have to contribute to the SBMC for each child. This situation may counter the intended effect, given that although one of the objectives of SBMC is to raise funds for the school with the intention of providing required resources and expand access to education for the community, it may also cause parents who are unable to pay the fees to withdraw the children from school. (ii) If SBMCs are not fully engaged in the decisions on key issues in the running of the school, including teacher evaluations and financial management, the SBMC itself may become a weak and ineffective institution, especially since its members are there on a voluntary basis, which has implications for the sustainability of the committee. In all six of the focus states, none of the SBMCs are empowered to fulfill their intended purpose, which suggests a close monitoring of the role effectively assigned to SBMCs.

151. **Under the current resource allocation formula and given the states' ability to generate internal revenue, it is apparent that some states have already stretched their resource use and are very unlikely**

to mobilize additional funds[77] to achieve the universal basic education full access target. Figure 38 presents the salaries in basic education as a share of (i) the total of LGA revenue and (ii) the statutory allocation from federation accounts. In some states, the share of salaries is already taking up more than half of their total statutory allocation or more than a third of their total revenue, and therefore, with the given resources, it is impossible to cover the cost needed. For example, in Kogi state, 149 percent of the current spending is needed, but given that they already spend close to 60 percent of their statutory allocation on salaries, and even if all of the LGA's statutory allocation is spent on salaries, they can only increase their spending by 40 percent instead of 149 percent. In addition, many states face state-specific political challenges—at times intangible—to expanding access, that affect the proper utilization of the available resources, let alone allowing an increase in resources.

152. **While all states have their own specific issues, it is very clear that some Nigerian states are fiscally or geopolitically constrained in their efforts to achieve universal basic education and there is a rationale for the federal government to scale-up assistance in such areas for greater improvements of efficiency.** In reference to this issue, the following question was asked during the qualitative data collection: "From your assessment what are the key political economy, cultural and social factors that affect outcomes of equity, quality and access to schooling in the state?" and the answer varies greatly across the six states. For example, access is not an issue in some states but a challenge in many others states mainly due to parents' views of education as alien to their culture. In contrast, poverty and limited funds constitute the main problem in almost all northern states, albeit for different reasons.

Figure 38: Share of basic education salaries of the total revenue and statutory allocation for local government



Source: Authors' estimate from CBN, Nigeria, State Budget, Federal Government Budget, and General Household Survey Panel 2010/11

[77] The lack of fund mobilization abilities also hinges on two factors: (i) given the decrease in oil revenues, there are concerns that states might cut back on spending in human development areas such as education; better contingency planning is needed to avoid such scenarios, (ii) given the relative fiscal autonomy of each state, reallocation of resources across state borders is not a viable possibility and, therefore, limits options that might otherwise be available.

Summary of key conclusions

153. Inequality in access to education widely observed in the Nigeria across geographical zones, incomes status, gender, and areas of residence, but there are specific concerns about inequality facing the children from poor families, in particular those from the northern part of the country. Nigeria's overall low education performance is clearly driven by the poor performance in the northern states. In particular, 30 percent of children aged 6-14 years old are out-of-school in Nigeria, and 95 percent of them live in the northern states, with the incidence increasing faster among girls, children from the poorest two income quintiles and in rural areas. In particular, although there are both demand and supply side reasons that explain this finding, the analysis clearly shows that public finance matters in reducing the out-of-school rate.

154. The analysis shows that the reason Nigeria is not achieving key milestones in basic education such as the MDGs, is the lag in the northern states. This has been observed through all levels of education, pre-school to junior secondary. For example the primary GER is as low as 17 percent in the north compared with the highest rate of 133 percent in the south. Similarly, NER at ECD stands at 2 percent in the poorest quintile while in the richest it goes up to 5 percent, which is another key driver of inequality. To a lesser extent, inequalities in gender and across areas, also contribute to the problem.

155. Despite ECD provision being a key focus of efforts to reduce inequality, the UBE program currently covers only one year of pre-primary education, although the sector officially recognizes ECD as covering children aged 3-5 years old. The current enrollment in ECD shows that this level of education is mostly used by children from wealthier households, but there are clear benefits that could accrue to children from lower income households as well, such as greater on-time enrollment. Given the three tenets of education investment: invest early, invest smartly and invest for all, the weaker focus on ECD programs and the inequality at this stage could hamper future efforts for inclusive growth and equal opportunities.

156. As indicated in the previous chapter, total public spending in education as a share of GDP stagnated at 1.7 percent between 2009 and 2013. It remains low compared to the average SSA spending (4.6%) and is also below GPE recommended levels (4.7%). Even in terms of the share of total public spending, education only represented about 12.5 percent of total spending in 2013, whereas the GPE sets its recommendation at 20 percent of total spending. In addition, the analysis shows that public spending also tends to be pro-rich in the north while spending in the south tends to be pro-poor, therefore reinforcing inequalities in the northern part of the country, instead of alleviating them.

157. Higher financial commitment both from the public budget and from households could lead to a reduction in the out-of-school incidence. According to the analysis, greater public as well as household spending per student tends to be associated with higher probability of school attendance. Indeed, states with higher revenue generating capacities are better equipped to spend more on education, as households from the southern states, and more generally affluent households, tend to prioritize education more as reflected in their investment patterns in education. These households also tend to increase their investment proportionately more over time than poorer households or households from the northern states. As a result, resources available per child in the northern states and in general from poorer households tend to be significantly lower, negatively impacting education outcomes.

158. Public spending in education tends to be pro-rich, or benefit the rich more, in the northern zones while the southern states tend to demonstrate pro-poor spending. Education spending however is still more equitable than income disparity across all zones. The fact that education outcomes are lower in northern states, this highlights the failure of the financial allocation mechanism to adequately respond to the needs on the ground. The available regional-level data clearly show positive correlations between government spending and education outcomes. These findings suggest that increasing spending in lagging states is likely to narrow the geographic inequalities. Yet, in the current allocation framework, federal government spending on basic education is not related to regional income inequality or other social factors that determine participation rates in schooling. Since the federal government does not have a policy for providing compensatory funding for poorer states, total government spending is biased towards wealthier states as well as affluent families within the states.

159. There are large variations in unit costs across states, which could indicate underlying differences in the governance system linked to resource allocation, distribution and utilization. The variation in unit costs across states could reflect (i) unequal variations in resource allocations, (ii) variations in efficiency, and (iii) variations in the number of children in the education system in each province. These variations could also translate into differences in the amount charged as school fees to households. Furthermore, this also reflects the capacity of the state to generate internal revenue and free up additional resources for schooling. Given that the resource allocation formula is politically determined, it is impossible for the states to equalize unit cost under the current governance structure.

160. To accommodate all out-of-school children, it is estimated that spending in education should increase by about 36 percent. An analysis of the efficiency in the use of resources indicates that Nigeria could save 25 percent of its resources if all states were as effective as the most efficient state, but that even if states were to utilize the resources efficiently, 17 of the 19 northern states would still require additional resources compared to only 6 of the 17 in the south. The extent of the additional help required by states ranges from 1 percent in Kwara to 149 percent in Kogi state. However, the states' ability to respond to this need is, as described earlier, limited to their revenue generating capacity, and therefore on the flexibility within their fiscal space to accommodate higher spending in education, including increasing human resources.

161. Although the UBE legal framework allows for a fair level of intergovernmental policy alignment and coordination, it also entails implementation challenges at the secondary school level and does not provide a clear accountability framework. As for school management for example, one of the key components of the UBE Act (2004) entails the disarticulation of junior secondary from senior secondary schools. However, the application of this component has not been uniform across all states, in part due to the fact that the UBE law has been ratified in each state with modifications. Some states have chosen to physically combine their primary and junior secondary schools by building onto existing primary schools, for example, while others have not. Some states facing fiscal constraints have yet to start the disarticulation process at all. And due to general dissatisfaction with the rolling out of the disarticulation process, some states have even started a re-articulation process, bringing back the junior secondary schools to their original arrangements. This has resulted in various degrees of disarticulation across the country and therefore an uneven application of the law.

162. The institutional framework set up by the UBE Act, which aims at to ensure both implementation effectiveness and policy alignment and coordination in the provision of universal basic

education, fails to ensure performance and only succeeds, to some extent, in intergovernmental and interagency coordination. The institutional framework does not ensure full alignment of political, managerial, professional and social accountability: UBE executive agencies at federal and state levels (UBEC and SUBEBs) are not accountable to the line ministry; UBEC is not accountable to state governments; teachers are not held accountable for results; SBMCs' oversight of school management has yet to be operationalized, and LGEAs are not accountable to local governments.

163. There is a disconnect between the objective of UBE and the allocation of the intervention fund across the states, which rests on a principle of political equity and is not determined on needs or performance. Although the objectives of the law are clearly laid out: to ensure "free, compulsory and universal basic education for every child of primary and junior secondary school-age," the allocation of UBE funds has not been targeted to the geographical areas which demonstrate the greatest gaps in access to education, and therefore have the greatest need for intervention. For example, the matching grant allocation formula is mostly motivated by a principle of political equity rather than a problem-driven approach.

164. The UBE Act also provides that "any principal, headmaster, teacher or P.T.A official who obtains fees is guilty of an offence punishable with a N10,000 fine or three months of imprisonment or both" and that "the stipulated period of schooling is free and no one is allowed to charge for it" (UBE Act 2004). However, it is common practice for schools to charge parents with PTA contributions or other fee collections; in fact, school fees constitute around 55 percent of total education expenditures, which constitutes a violation of the UBE law and, as mentioned earlier, is an indication of the inconsistency in its implementation. The law requires parents to send their children to school. But this gap in the application of UBE renders enforcement difficult and by failing to enact the free education component, could also promote the exclusion of poorer children from school, thus increasing inequity in access. In particular, given that the northern part of the country has higher poverty rates, such a failure could further exacerbate the exclusion rate there.

165. Cost sharing by state governments as a requirement for accessing UBE funds, such as the 50 percent requirement on the matching grant component of funds channeled through UBEC, has created constraints on states to adequately access the funds, especially on those states that are already fiscally more constrained, and therefore has limited the application and success of the implementation of the UBE program. The matching grant allocation formula is mostly motivated by a principle of political equity rather than a problem-driven approach. In effect, it has resulted in uneven disbursement rates across the states, i.e. an actual distribution of funds which is at odds with the allocation formula.

166. Private schools tend to be more present in the south than in the north, contributing to the access gap between the two zones, and they tend to accommodate children from affluent families more while religious and public schools tend to be more important for children from poorer households. Increasing private school provision, and thereby providing alternatives for more affluent households, would free up resources in the public sector that could be used to target children from poorer households. However, the current management system does not account for an increased provision of private providers as part of the UBE program, or in the budget allocation framework.

167. Despite the implementation of automatic promotion, repetition rates and dropout rates are still a source of internal inefficiency in basic education, with 11 percent dropout rate in primary, a 6 percent

rate in junior secondary, and repetition rates close to 5 percent for both levels. The analysis shows that the incidence of repetition and dropout in basic education corresponds to a public deadweight loss equivalent to 18 percent of total spending and 14 percent of household spending.

168. The existing accountability framework does not promote performance. For example, there is no incentive built-into the UBE law that would reward adherence to the disarticulation process of junior secondary schools, such as financial incentives tied to the rate of disarticulation. As a result states have no added motivation to obey the law and rather prefer to modify it as they see fit given their socio-economic context. At the same time, the partial enforcement of the law effectively undermines the relevance of the other components of the law, which could have been easily implemented. For example, if the disarticulation process has not taken place in a secondary school, given that the school collects fees from parents of senior secondary students, it is typically next to impossible to prevent fee collection from the junior secondary parents as well, even though junior secondary is supposed to be free according to the law.

169. A lack of transparency and awareness in basic education management renders the system complex and creates a fragile environment. There is a clear lack of communication between the different actors in the service delivery value chain, and their associated roles and responsibilities are often unclear, which creates confusion and affects the ability to properly enforce accountability. For example, it is very common for teachers to be unaware of the source of financing of their salaries and it is often unclear to them whom to contact in order to raise issues to. In Kano, although UBEC discontinued the school feeding program (even though the program is required under the UBE Act), it was later taken up by the state. However, it is usual to still find the common misconception that UBEC is still funding the school feeding program. In yet another case, although it happens that UBE policy on resource allocation changes from time to time, it is not clear whether the changes are initiated based on a critical assessment of the program or due to pressure in the form of criticism from the states. In such circumstances, it is hard to enforce other stipulations of the law, for example, requiring that parents must send their children to school.

Key policy recommendations

Strengthen the legal and institutional environment in education policy implementation

170. To improve policy implementation and ensure policy objectives are met, executive agencies should be accountable for the results to the relevant line ministries. For that purpose, a performance agreement would be helpful to frame the relationship between the ministry of education and UBEC at federal level and between SUBEBs and the state ministries of education at state level. A similar agreement could be envisaged at the local level to link LGEAs and LGAs. This would also help leverage synergies and complementarities between the respective institutional capacities and mandates of the principals (ministries) and their agents (UBEC, SUBEBs, LGEAs) and reduce the overall cost of the governance framework in basic education.

171. There should be a national framework ensuring enforcement and compliance with education policy across states while operating within the boundaries of the states' constitutional rights. An

education policy framework would enable the enforcement of disarticulation, for example, taking into account the variation in the states' fiscal rigidities and therefore their ability to financially take on the associated costs of disarticulation. This would allow channeling of additional funds to support those states that need additional help.

172. The role of local governments can be better leveraged. As it is, local governments are hardly autonomous in Nigeria; their chairman is often appointed by the state governor and local elections are a rare occurrence. Although in principle they spend, on average, close to one-third of their resources on primary education (CBN, 2013), they also hardly play any effective role in basic education since their funds are, in effect, mostly managed by state governments; this deprives basic education of a potentially useful institutional lever and social accountability mechanism. The role of local governments in basic education remains a topic of political debate; there is an urgent need for a review of this role, as local governments are a critical factor in local education governance, potentially both positive and negative. The participation of local government councils in SBMCs and LGEAs can be considered as well as their involvement in the decision-making process and supervision of school performance.

Create incentive mechanisms in basic education policies and ensure alignment of resources with sector priorities

173. To ensure successful implementation of national policies, there should be an incentives framework encouraging compliance and an adequate budget should be allotted to that effect. To effectively achieve the objectives of the UBE Act, the resource allocation formula of the UBE intervention fund should be defined within a results-based intervention framework and therefore should be policy-driven, and as such it should focus on states with the greatest needs.

174. In order to enhance the implementation effectiveness of basic education policies, the institutional framework needs to be streamlined horizontally by rationalizing the distribution of roles and responsibility between the line ministry and the executive agencies at federal and state level and pooling their resources (e.g. for quality assurance and M&E). It should also be streamlined vertically by ensuring effective subsidiarity of higher levels of government through adequate devolution of responsibility and integration of information. This can be done by framing the relationship between the ministry of education and UBEC at federal level and between SUBEBs and the state ministries of education at state level. A similar agreement could be envisaged at local level to link LGEAs and LGAs. This would also help leverage synergies and complementarities between the respective institutional capacities and mandates of the principals (ministries) and their agents (UBEC, SUBEBs, LGEAs) and reduce the overall cost of the governance framework of basic education.

175. Building on interstate coordination/consultation could help foster emulation and mainstreaming of best practices across the states, especially given the variety of institutional set ups and practices across Nigerian states. The National Council of Education could anchor such peer learning and exchange of experience between state officials and other stakeholders. A benchmarking framework of education indicators at the state level should be established to promote such knowledge exchange. For example, states that successfully went through disarticulation of junior secondary schools should be taken as an example for other states to estimate the cost and learn from the process.

176. In addition to strengthening the managerial accountability of basic education executive agencies (UBEC, SUBEBs, LGEAs), the role of school principals should also be further strengthened and operationalized: 1) school principals need be granted leeway to exercise their important role in managing, supervising and mentoring teachers and endowed with the qualifications to do so; and 2) they need to be provided the necessary management tools to that effect, i.e. the information to allow them to assess and benchmark their school performance (school score cards are essential for that purpose – the experience in Lagos state under the World Bank EKO secondary education project showed that such assessment and benchmarking tools also help build collective accountability and leadership at the school level, supporting further the school principal in the exercise of their managerial responsibilities); 3) the oversight of School-Based Management Committees on school management should also be a potent social accountability check and should be operationalized to that effect.

177. Establish goals and targets that could be nurtured from time-to-time with commensurate incentive packages focusing on policy priorities. For example, in states with high-out-of-school rates, results-based contractual agreements could be made with incentive packages added upfront at the project design stage.

Ensure adequate education budget with focus on lagging states and communities

178. Increase spending on education targeting the challenge areas. As it currently stands, public investment in education in Nigeria, at 12.9 percent of total public spending and 1.7 percent of GDP is far below the recommended levels to effectuate any real change in the sector. In addition, due to the constraints of operating within the federal system, federal intervention should be carried out in coordination with the states. Higher education spending would enable states to meet their biggest challenges, including helping to increase access, through targeted investments.

179. An increase in public education spending would enable the states to carry out necessary interventions to target basic education challenges and to address the inequity issues. Introducing explicit mechanisms to ensure more effective coordination of resource mobilization between the three tiers of government would allow the country to reach its goals faster and more efficiently. In particular, given that all tiers of government share the same goals in basic education, it is vital to ensure they are all coordinating their efforts and resources to achieve these goals in the most efficient way possible. This should include: clearly identifying how much each tier is contributing to basic education, where the gaps are in education outcomes, and how to help bridge the financial need.

180. Use unit cost as an instrument in the preparation of policies aimed at accommodating out-of-school children into the education system. The cost of accommodating the out-of-school children is and reasonably within the means of the country but requires a strong financial commitment on behalf of the government. The analysis shows that to accommodate all out-of-school children, spending in education should increase by about 42 percent. In addition, given that the issue is one that especially affects girls and children from poor households, this would be one of the key areas in which the government could clearly align its investment strategy with its agenda for greater equity.

181. Decentralization, under the right conditions, can help foster political accountability, but does not remedy the inequality across states. On the contrary, financial decentralization can widen

disparities to the detriment of poorer states. In order to redress this issue, there should be a built-in commitment to equity in the financing formula adopted for resource allocation. It is important for the federal government to retain a strong redistributive role, facilitating the transfer of resources from federal sources to poorer states and LGAs. In determining the financing formula underlying transfers to states, the federal government should pay particular attention to equity indicators—such as poverty levels, resource availability and share of children out of school—guided by the principle that those in greatest need should receive the most support.

Earmark budget for basic education reducing potential inefficient use of funds in the sector

182. The basic education sector budget should be earmarked. As it currently stands, staff salary is withheld at source based on the number of staff in the system, which is a first step, but having a full-fledged earmarked budget is necessary for proper planning and evaluation of the sector. In addition, adequate Human Resources management should be prioritized as a way to save misallocated resources (e.g. inflated administrative and non-teaching staff) while incentivizing teachers' and school managers' performance, for example through a more enticing wage structure.

Adopt governance and financing strategies to address poverty, social, cultural and other barriers to achieving education goals

183. Institute pro-poor education policy intervention programs focusing on marginalized communities. This may include conditional cash transfers (CCT) to parents to send their children to school, or school feeding programs targeting children from poor families, rural areas or even girls, as poverty is one of the factors that hinders school participation. Impact evaluations in a number of countries show positive results from such targeted interventions on school attendance rates including CCTs targeting girls in Pakistan, Mexico and Brazil, school meals in rural India and Kenya, and girls' scholarship programs in Cambodia and Indonesia, (see Annex D for details).

184. Ensure schools are equipped to provide a gender-friendly environment, for example, having adequate toilets and sanitary facilities on the school premises, and access to water; but also ensuring female teachers and staff are adequately represented to make the school environment attractive and safe for female students and give parents confidence to send their children to school. For example, with assistance from UNICEF, Ethiopia began implementing the CFS program in 2007 in 51 selected primary schools with an estimated reach of more than 80,000 students. The program sought to improve education quality, outcomes and childhood development by addressing perceived school-based barriers that limit access to education and participation in school. Interventions included renovation or construction of classrooms, teaching and ECD centers, libraries, and water and sanitation facilities; provision of furniture, education materials, equipment, and uniforms. The results were positive in all aspects (see Annex D for details).

185. Government should consider the expansion of alternative learning programs to provide second chance education for parents and youth. Adequate provision of UBE opportunities for parents could have positive effects, not only in raising their own education level, but also in motivating them to send their own children to school and gradually narrow the equity gap. For example, given that the out-of-

school issue is most pressing in the north, where poverty rates are higher, parents are less educated, and resources are sparser, funds could be dedicated to increasing the public provision of schooling. As found in the analysis, poorer households tend to depend on public and religious schools more, and targeting an increase in public provision in the north could have a significant impact on reducing the out-of-school incidence for inequality improvement. This program has been implemented in several countries with similar issues. For example, Alistair Smith (2008) noted the benefits of accelerated learning programs across four core dimensions: (i) process: creating awareness of learning, (ii) psychological: developing relationships for learning, (iii) psychological: ensuring readiness for learning, and (iv) physical: creating movement and space for learning. Such programs have been successfully implemented in emergency and post-conflict situations (Baxter and Bethke, UNESCO 2009).[78] Similarly, an impact evaluation of Mali's speed schools confirms that such programs successful reintegrate out-of-school children into the formal public school system[79] (see Annex D for details).

186. Strengthen SBMCs and other community-level grassroots mobilization to generate awareness for education. SBMCs could also develop sensitization campaigns for communities to overcome social and cultural barriers to such practices as girls' education in those areas that are more sensitive to these issues and where girls might be lagging. This can be done by providing enough resources, both technical and financial, for effective utilization of SBMCs. Regularly prepare community oriented programs through the SBMC to increase parent participation in school events and child activities at school. Given that one of the main factors explaining why children are out of school is the fact that many parents of children and children themselves express no interest in pursuing an education, SBMCs have a particularly important role in creating awareness about the benefits of education. For example, in 2002 the Government of Indonesia empowered public school committees with a greater role in advising and supporting school management, and also promoting engagement with the community. School committees in treatment schools received a grant conditional on the school committees developing an expenditure plan, which had to be posted on the school notice board. They also received a combination of three interventions – training, democratic election of school committee members, or a linkage to the village council through facilitated meetings. The impact was positive and was measured based on education outcomes (i.e. dropout rate, repetition rate, and test scores), and intermediate outcomes, for example public perceptions of student learning, awareness of school committees, parental level inputs etc. (see annex D for details).

Establish a strategic non-public school management system

187. Enhance public-private partnerships (PPPs) within a coherent policy and regulatory framework. Private schools in the southern part of the country are important service providers in education, offering strong alternatives to parents, and when compared to the total unit cost in public schools (household and public sector spending per child), private providers appear to be overall more cost-effective. Given their apparent cost-effectiveness, and their ability to increase access to schooling, there are clear benefits to extend private participation in the northern states where the out-of-school issue is critical. This can be done, for example, by providing grants to private schools to enroll children

[78] http://www.ineesite.org/uploads/files/resources/Alternative_education.pdf

[79] http://www.poverty-action.org/burkinafaso).

from poor households. Such a program would significantly alleviate the pressure on the public school system to build thousands of additional classrooms to accommodate both current and future students. At the same time, increasing private school provision would give affluent families the opportunity to increase their use of the often more attractive private schools, creating room for the public sector to accommodate children from low and middle income families. For example, in Pakistan a Low-Cost Private Schooling program in Rural Sindh was implemented by the Sindh Education Foundation to increase access to primary education in underserved rural communities through PPPs with local entrepreneurs. The program led to large gains in enrollment within both the targeted age group and older children, with similar impacts on both girls and boys (see Annex D for details).

188. However, for this partnership to be effective, there should be an accompanying and enforceable accountability structure, regulating the quality and standards of education provision such as regular monitoring and evaluation to ensure high standards of provision of services and avoid the risk of sub-par, predatory provision. There should be a clear policy for management of private schools with clear standards of accreditation and development of curriculum. As mentioned earlier, private school providers can be important partners for the public sector in the provision of education services in Nigeria, especially in remote or difficult to reach areas.

189. The governance framework for public schools needs to be extended to government oversight of private and religious schools, which do not yet satisfy all standards and, therefore, would gain from being streamlined. Nigeria can benefit from the experience of other developing countries in this regard such as Indonesia, where madrasahs have been fully integrated since 1989 and redefined from religious schools to "regular schools with religious characteristics" (EDOREN, 2015).

Strengthen M&E system and practices to ensure consistency and enforceability

190. The role of local governments needs to be clarified and strengthened. SBMCs and LGEAs should establish clear accountability channels with the LGA, with regular reporting mechanisms, and LGAs should be involved in the decision-making process for the allocation of funds to the schools that belong to their area. They should be fully engaged in the M&E process. Empowerment of the LGA is key in communities where grassroots campaigning for access expansion is needed.

191. Given the financial resource constraints under which the public sector is operating, there is a strong rationale to explore potential efficiency savings, that is, savings arising from more efficient use of resources. Repetition and dropout rates are a source of internal inefficiency and in order to address these issues, it is essential to ensure that the automatic promotion policy is effectively applied. In addition, the community, through the SBMC, could coordinate with the school and parents more closely to ensure that children stay in school. For example, an impact evaluation was carried out on a program that involves parents directly in the management of schools located in highly disadvantaged rural communities. The program finances parent associations and motivates parental participation by involving them in the management of the school grants. The program resulted in an increase in the participation of parents in monitoring school performance and decision-making as well as improved intermediate school quality indicators (see annex D for details).

192. Social accountability mechanisms should be used for the monitoring of school performance. SBMCs can be further operationalized to strengthen school management and performance oversight and effective social accountability. In order for SBMCs to contribute effectively to the improvement of basic education in Nigeria, their feedback and reports to state governments need to be consolidated and publicly disclosed. This would provide all stakeholders with data on the quality of basic education—both aggregate (at state and national level) and disaggregated (at school level); for that purpose, they should be provided simple templates to report on a set of school-level performance indicators (student and teacher attendance, quality of school infrastructure, etc.).

193. Reduce duplication of efforts in basic education management, especially with respect to supervisory roles. There are currently overlapping supervisory responsibilities across UBEC, SUBEBs and LGEAs. This duplication of efforts has led to inefficiencies in the use of resources, and unclear accountability channels without the added benefit of improved outcomes.

Establish response measures to direct and indirect impacts of armed conflicts on the education sector

194. Ongoing conflict is one of the drivers of inequity in access to basic education, affecting mainly the northern states with some spillover to nearby states. Prolonged instability could create longer term consequences for education outcomes in those affected areas. The analysis only captured the effect of the conflict on school participation the effect on school infrastructure and other school inputs, including teachers, is not within the scope of this study. It is also clear that the increase in the out-of-school rate (drop in the access rate) following the outbreak of the conflict as well as the actual damage to the school system and infrastructure requires further investigation. The conflict may be expected to compound the impact of pre-existing problems, such as high class size, large STR, low qualified teachers, and poor classroom conditions. Therefore, there is a clear rationale for federal government intervention with special technical support and additional funding to address such problems that were direct results of the conflict.

Quality of basic education

195. **In Nigeria, concerns about the quality of education are perhaps a more pronounced issue than concerns about access, especially since access is mainly a concern among northern states.** As discussed in the introduction, quality of learning outcomes is narrowly defined as the performance of children in schooling at the basic education level in terms of (i) learning assessment results (ii) on time completion of appropriate basic education levels and (iii) literacy and numeracy skills. This section investigates whether the north-south divide, which is a central feature in the issue of access to education, is also a prominent feature in the diagnosis of the quality of education and the outcomes from schooling. This section is organized as follows: (i) descriptive statistics of quality indicators, (ii) an analysis of both demand and supply side determinants of key quality indicators, including a breakdown of key drivers of quality by social group (full analysis is presented in Annex C), and (iii) key areas where quality improvement is needed, followed by a summary conclusion and policy recommendations. In particular, this section aims to address the following questions:

- Are quality of education and learning outcomes varies across geographic areas?
- Does finance matter for quality of education?
- What are key determinants of learning outcomes and what should be done to improve quality of education?
- Is the M&E framework adequate and reliable to implement quality services delivery?
- Does the political economy of the Nigerian education sector context promote quality education?

Proxy for basic education quality

196. **While many studies employ test scores or learning assessment results as proxies for quality of education, in this section we use the broader definition of quality of education based on the Dakar Framework for Action**, adopted in 2000, which affirmed that quality was 'at the heart of education' – a fundamental determinant of enrollment, retention and achievement.[80] Accordingly, the following quality indicators are used to measure quality of basic education in Nigeria: (i) primary completion rate and on-time completion of junior secondary school; this is based on the fact that completion of education by the official completion age leads to better post-education outcomes, including enhanced social and economic benefits, (ii) grade 6 test results for entrance to unity college[81], and (iii) numeracy and literacy rates based on the national learning assessment in 2010/2011 and literacy rates of children (age 11 to 14) currently enrolled in grade 4 and grade 6 of the basic education level. These indicators are available for all 36 states and the federal capital territory (Abuja).

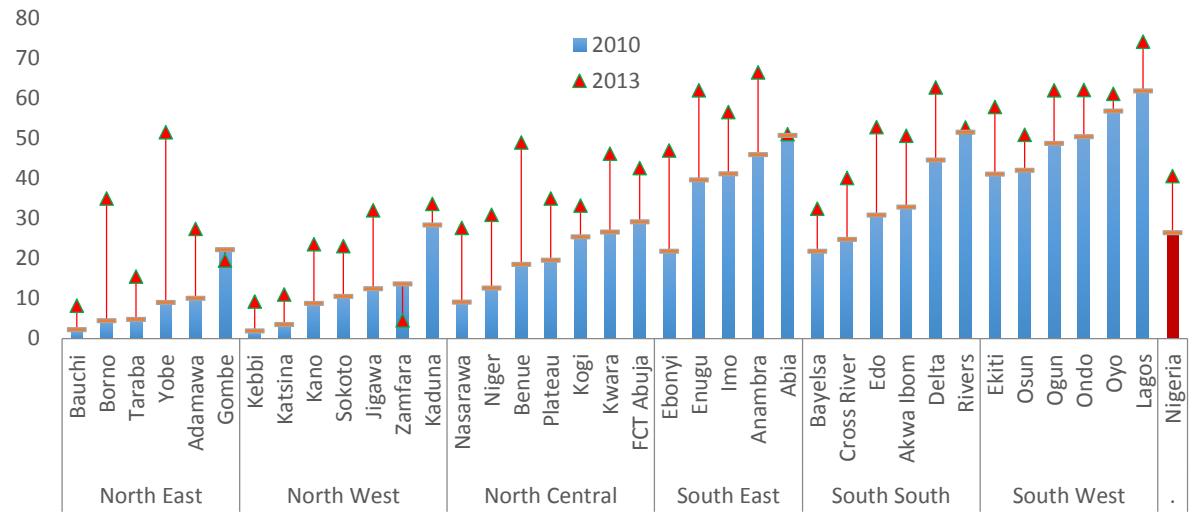
197. **Learning outcomes measured by results on grade 6 entrance exam shows high zonal variation. It should be noted that there is a standardized learning assessment throughout the basic education cycle** Figure 39 shows the percentage of students with at least a 75 percent score on grade 6 standardized tests, by state. At the national level, the results for this measure improved from 27 percent in 2010 to 41 percent in 2013. Most of the improvement over this period was driven by improvements in performance in the northern states. This stands in contrast to the growing out-of-school rates in the north over the same period. However, there are two key underlying factors at play in this dynamic: (i) given that there is generally an inverse relationship between quality of education and class size, the better learning outcomes in the northern states could be at the expense of out-of-school children. In other words, those who do attend school in the north tend to have access to better resources including better student-teacher ratio, smaller class size and greater access to learning materials, all of which contribute to better performance on exams. (ii) Children who do attend school in the northern states are mostly from relatively better educated and affluent parents. As observed earlier, these children tend to have access to higher household per student spending, which is tied to better learning outcomes. For

[80] The Dakar Framework for Action's expanded definition of quality set out the desirable characteristics of learners (healthy, motivated students), processes (competent teachers using active pedagogies), content (relevant curricula) and systems (good governance and equitable resource allocation). Although this established an agenda for achieving good education quality, it did not ascribe any relative weighting to the various dimensions identified

[81] There are 104 unity colleges operated by the Federal government in Nigeria. This exam serves as an entrance requirement for those seeking to join these colleges and quality assessment using this indicator is therefore limited.

example, in Yobe only 15 percent of the children in the basic education age group were in school in 2013 and satisfactory test results for those in school increased from 9 percent in 2010 to 51 percent in 2013. At the same time, the out-of-school rate increased from 40 percent in 2010 to 85 percent in 2013 which further corroborates the assumption that the improved performance rates are artificially improving, driven mostly by the fact that resources are devoted to a much smaller group of students. Only two states, Zamfara and Gombe, both in the north, have registered a decrease in the share of students having obtained at least 75 percent on the grade 6 exam.

Figure 39: Trends of Unity College entrance exam by state, 2010, 2013



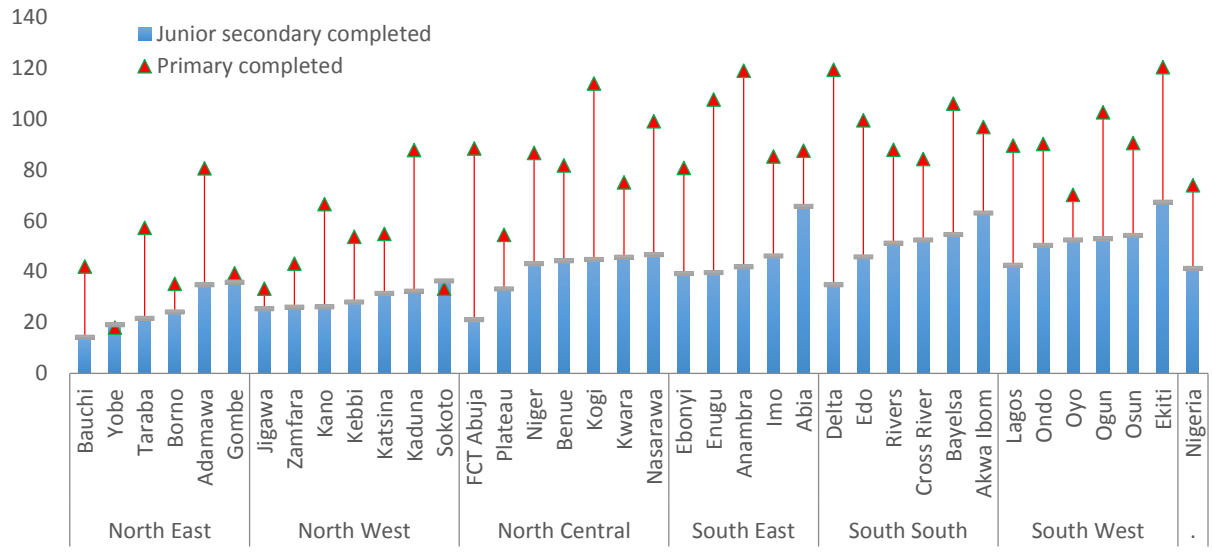
Source: Authors' estimate from General Household Survey Panel 2010/11 and Demographic and Health Survey 2013

198. **Both primary and junior secondary completion in Nigeria is low with a clear north-south divide.** Figure 40 shows the primary and junior secondary completion rate by state. Completion of the education cycle is contingent on the ability of the educational system to retain students throughout the cycles, and also reflects the quality of learning. When the school quality is low, both parents and youth tend to reduce the importance they attach to education. Low school quality coupled with a lack of motivation at school, act as factors pushing students to drop out by hindering student achievement and progress[82]. Poor organizational features of schools, such as a lack of clear and rigorous school goals, appear to amplify such push factors: youth who dropped out perceive teachers to be less interested in them, and viewed school discipline as ineffective and inequitably applied[83]. This particular measure of quality is highly correlated with out-of-school incidence; a similar regression model to one run in the out-of-school analysis is employed here and the results are summarized later in this section.

[82] Hardre and Reeve 2003

[83] Audas and Willms 2001

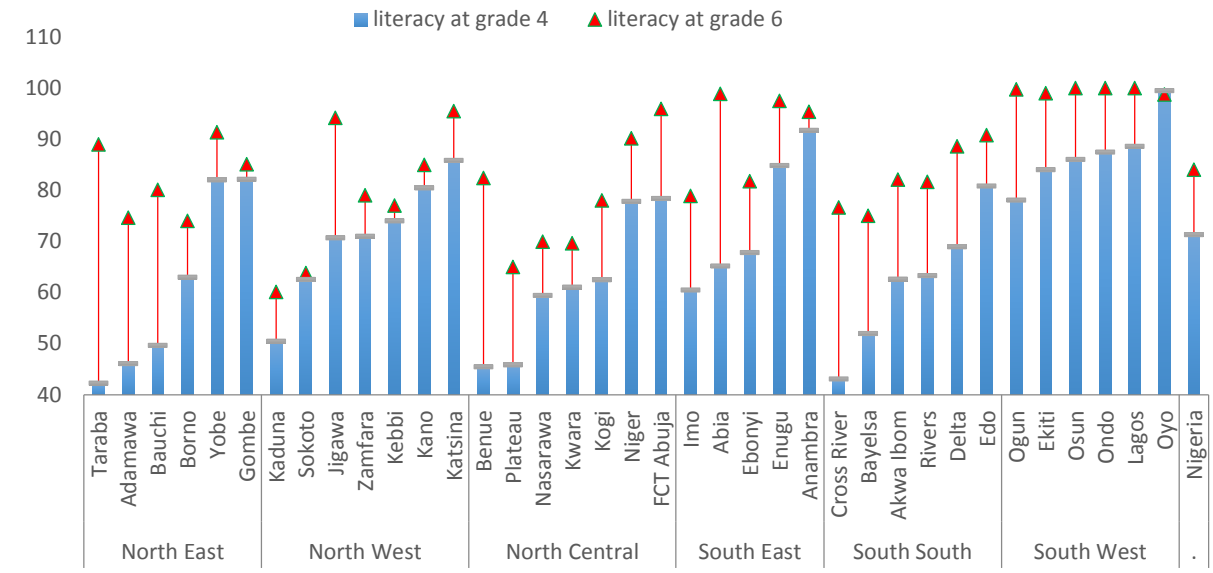
Figure 40: Primary completion rate and completion of junior secondary at grade-appropriate age (age 13-17)



Source: Authors' estimate from Demographic and Health Survey 2013

199. **The literacy rate is a key indicator of learning outcomes and one of the basic skills necessary in the workplace; the literacy rate among youth who have completed grade 6 reached 84 percent in 2010**. Figure 41 shows the literacy rate for children aged 11-14 attending grade 4 and 6 in 2010. This figure indicates that there are strong dynamics in the development of literacy skills between grade 4 and grade 6. For example, in 2010, the literacy rate at grade 4 stood at 71 percent compared with 84 percent for those in grade 6. However, by international standards, children after grade 3 are expected to be fully literate. Nigeria's low quality performance has been highlighted in three different studies, which also point out that quality varies from state to state and is particularly low in the north. The three studies include: (i) the 2015 SDI study in 4 states (Anambra, Bauchi, Ekiti and Niger), which showed that student test scores in the southern two states (Anambra and Ekiti) were better than those in Bauchi and Niger, (ii) ESSPIN and UKAID (2010), assessed 6 states (Enugu, Jigawa, Kaduna, Kano, Kwara and Lagos) and found that Kwara state had better scores in Mathematics both in public and private schools and had better English scores in private schools. And (iii) an early grade 3 reading test (RTI international and USAID, 2011) found that reading levels for two northern states, Sokoto and Bauchi, were low. These studies all reflect the same conclusions, that quality of education is an issue both in the northern and southern states, albeit slightly more so in the north. Since we have data for all states on the literacy status of grade 4 and 6 students, the modeling analysis uses these indicators to determine which factors influence learning outcomes. Similar results were observed from learning assessment at grade 3 based on Math, English and life sciences test results (Annex C).

Figure 41: Literacy rate after grade 4 and 6 attainment by state relevant age group (age 11-14)



Source: Authors' estimate from General Household Survey Panel 2010/11

Determinants of learning outcomes

200. **A summarized spatial analysis clearly indicates that there is a divide in terms of quality indicators between the north and south geopolitical zones but the divide is not as severe as in the case of access.** Annex C, Figure C 1 presents the geographical representation of key basic education quality indicators by state. While this figure clearly highlights the quality issues facing the education sector, it is very important to investigate the supply and demand factors other than finance, which include cultural and social aspects, which may also factor into these results.

201. Similar to the equity analysis, several econometric models are employed to investigate how demand and supply side factors affect the key learning outcome indicators described above. While the models and factors used in this section are the same as in the equity case (except in the decomposition model), for the learning outcomes assessment, public financial inputs are measured in two ways: (i) direct financial input, which consists of availability of public resources per student and financial wellbeing of the states, and (ii) quality of resources used, measured by the student teacher ratio, class size, average salary of teachers and share of qualified teachers (this is the only difference from the out-of-school factors). As stated above, we used five indicators as proxies for quality of educational: grade 6 test score, literacy rate after completion of grades 4 and 6, primary completion rate, and junior secondary completion rate (Annex C presents a series of regression tables and detailed discussion). In summary the results show that: (i) financial indicators are key determinants of learning outcomes--the effect of direct financial input (public unit cost, state revenue per school-age child, household unit cost, and teachers' salaries) and indirect financial input (STR, class size and share of qualified teachers), affects all the key learning indicators, and (ii) learning outcomes are more sensitive to supply side factors than demand side factors like gender, area of residence, and wealth status of the household, among others.

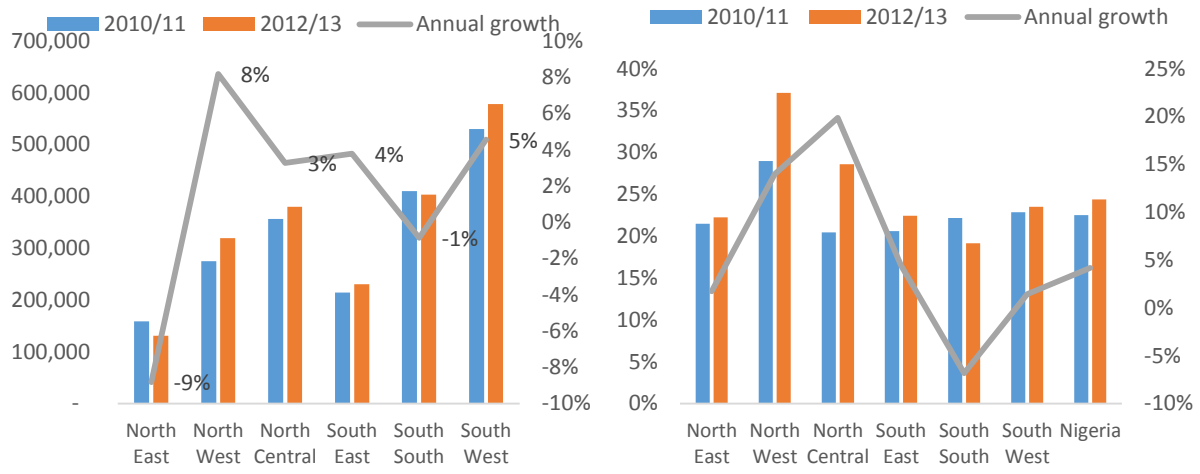
Effective utilization and management of human resources

202. This section highlights two aspects of HRM in education that affect learning outcomes: (i) teachers' motivation and in-class teaching skills, and (ii) number of teachers relative to the number of children. Teachers' financial compensation is one of the main sources of motivation, and this section investigates whether teachers remuneration levels are optimal and in line with the objectives of the sector. In particular, evidence from teachers' assessments, such as the SDI study in four states (Anambra, Bauchi, Ekiti and Niger), a ESSPIN and UKaid study in five states (Jigawa, Kaduna, Kano, Kwara and Lagos), and an RTI International and USAID study in two states (Bauchi and Sokoto), concluded that (a) teachers often go on strike to press for salary raises and (b) teachers' competence level is very low. In terms of the adequacy of the number of teachers, the STR is one of the main determinants of learning outcomes. This section explores the question of whether management of teachers by the states and the salary payments by the LGAs has created some bottlenecks in the adequate recruitment of teachers.

203. **Education sector staff represents the largest share of the public wage bill in the north, although in terms of actual number there are fewer teachers in the north compared to the south.** Figure 42 shows (a) trends in total number of education sector staff and their average annual growth rate, and (b) the share of primary school teachers in the total public wage bill and its average annual growth rate. There is a disproportionately lower number of education sector employees in the north relative to the number of students, which explains the larger STR; the ongoing conflicts in this area could also be an important factor in explaining the relatively low number of teachers. This is an important issue, especially given the strong growth potential and educational needs in this area of the country.

204. At the national level, the relative share of education sector staff in the total public wage bill increased by 1 percentage point between 2010 and 2012 (from 23 percent to 24 percent). As mentioned earlier and despite having a smaller share of education sector staff, the north has a higher proportion of education sector staff in the total public wage bill and this proportion is growing faster than in the south. In addition, the fact that they have fewer teachers but maintain a very high ratio of teachers as share of total public employment suggests that not only is the education sector affected in the north, but so are other sectors, which have indirect effect on education such as child health provision. As stated above, lack of employment opportunities, either in the public or private sectors, has prevented the north from realizing the benefits of education through better employment.

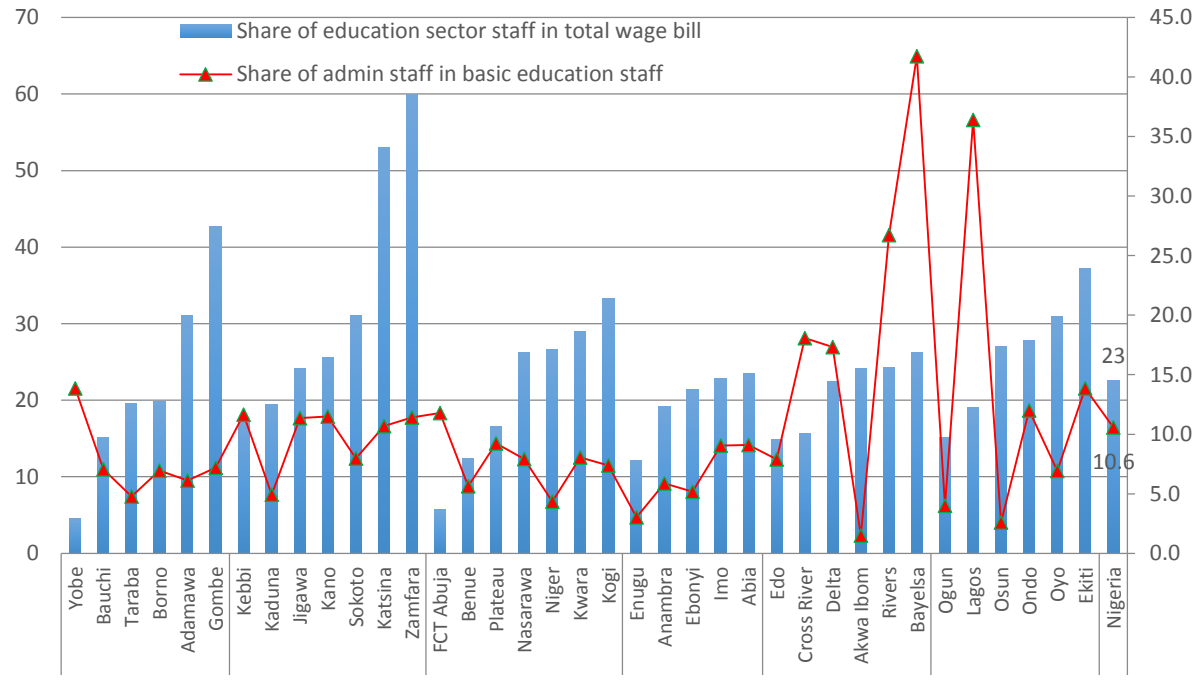
Figure 42: Total education staff and growth rate (left); share of primary school teachers in total wage bill and growth rate (right)



Source: Authors' estimate from General Household Survey Panel 2010/11 and 2012/13

205. **In some northern states, the share of education staff in the public wage bill is more than 50 percent**. Figure 43 shows the share of teachers in the total wage bill and the share of administrative staff in basic education by state. The administrative staff ratio is on average only 11 percent of total staffing, indicating that teachers account for the largest share in the wage bill. In particular, in some northern states teachers represent a very high share of total public workers, such as in Zamfara (60 percent), Katsina (53 percent), and Gombe (43 percent), while only Ekiti in the south has a relatively high share (37 percent). This trend implies that there is a need for better teacher management policies, especially in the north. In addition, the large share of education staff in the wage bill is an indicator of a potential tendency for political patronage, whereby the teachers' lobbying may influence and determine teacher quality enhancement policies.

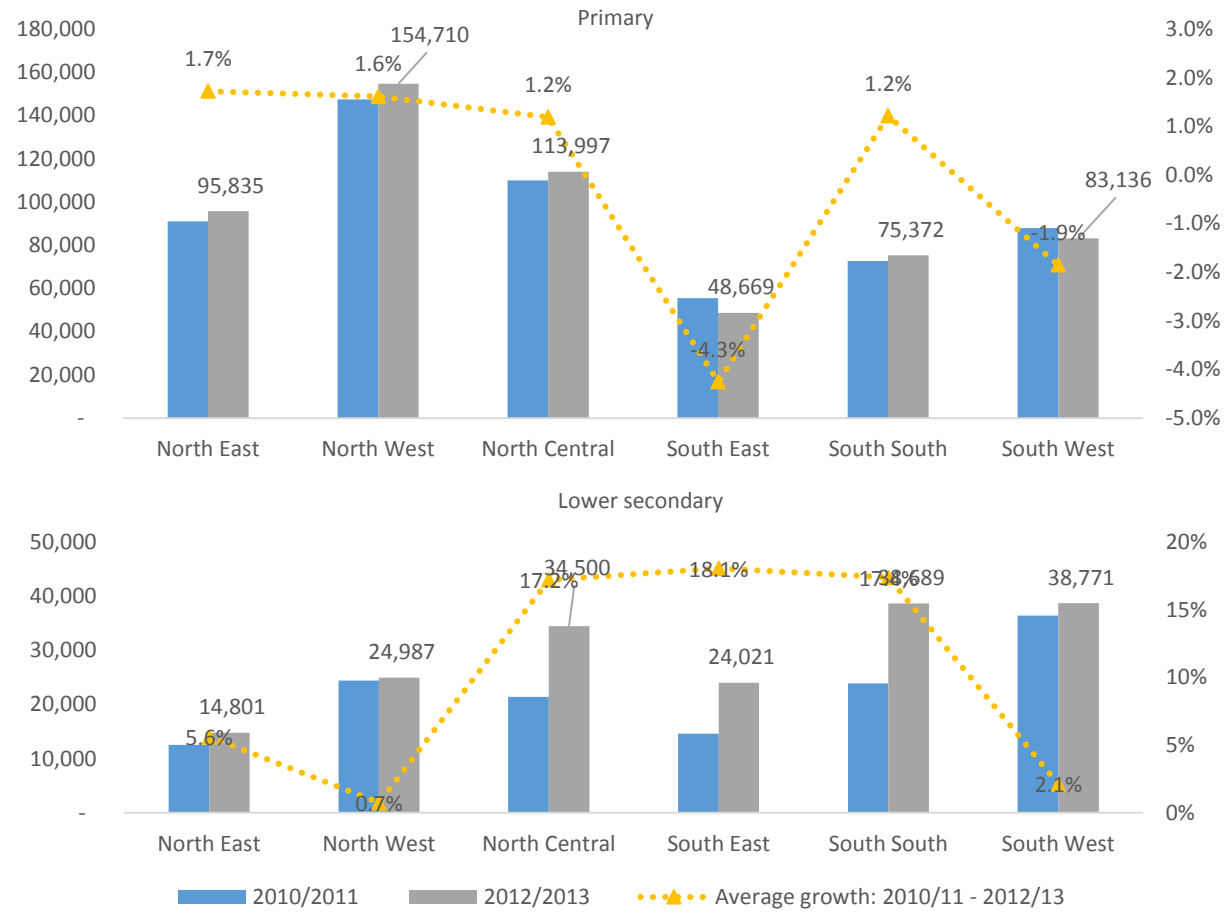
Figure 43: Teachers share of total state employment and admin share of basic education level, 2010



Source: Authors' estimate from General Household Survey Panel 2010/11 and UBEC Audit Report 2010

206. **The overall trend in growth in the number of s between 2010/2011 and 2012/2013 indicates that there has been a greater focus on junior secondary, where teaching staff grew on average 9.6 percent compared with 0.4 percent at the primary level over the same two-year period.** Figure 44 shows the growth in the number of teachers for primary and junior secondary education between 2010/2011 and 2012/2013 by geographical zone. The primary level registered the most modest overall national growth, with the northern states having the highest average growth rates, ranging between 1.2 and 1.7 percent, while the South East and South West recorded a drop in the number of teachers over that same period. On the other hand, recruitment of teachers at the junior secondary level was relatively strong with an overall average growth rate of 9.6 percent, driven mostly by the increase in South East (18%) and South South (17%), but also in North Central (17%). In comparison, growth rates in the north, particularly North East and North West were much more modest at 5.6 percent and 0.7 percent respectively. However, since the quality, as well as quantity, of teachers matter, in terms of impact on education outcomes, there is no evidence that an increase in the number of teachers leads to an increase in learning outcomes, but it is important that the number of teachers grows proportionately to student growth to maintain a manageable STR.

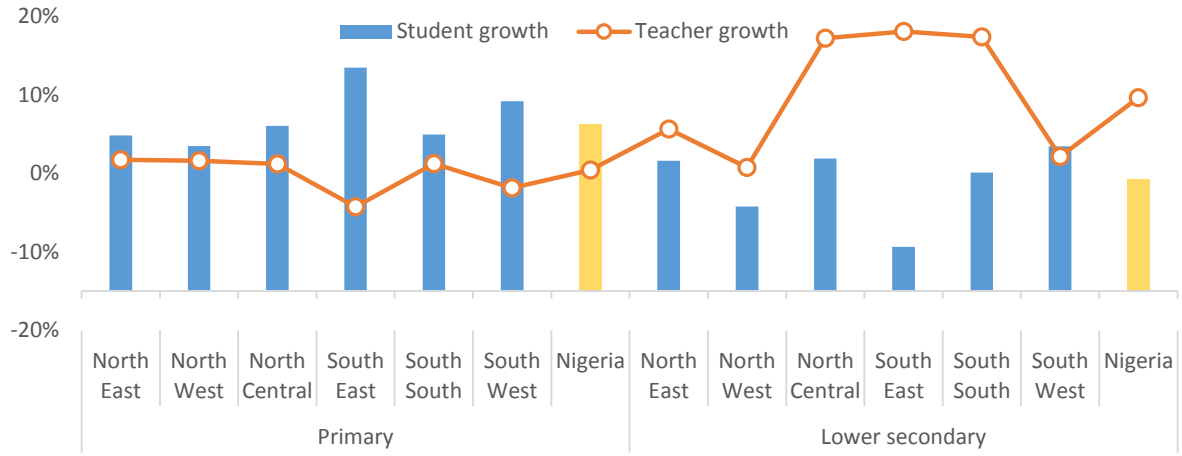
Figure 44: Number of teachers (left axis) and growth(right axis)



Source: Authors' estimate from General Household Survey Panel 2010/11 and 2012/13 and NEMIS 2010-2013

207. **Growth in the number of teachers is not aligned with growth trends in student enrollment.** Figure 45 shows the growth rates of teachers and associated growth rates in number of students at both levels of education by geopolitical zone. The greatest shortfall in the teacher-student trends is at the primary level where on average student enrollment grew by 6.1 percent while the number of teachers grew on average 0.4 percent over the 2010/2011-2012/2013 period. The gap was particularly large in the south with the South East and South West showing the largest deficit. On the other hand, nationwide teacher growth at the junior secondary level (9.6%) far exceeded the growth in student enrollment (-0.7%) at that level of education, across all geopolitical zones, most predominantly in the South East and South South as well as North Central. Student enrollment at the junior secondary level dropped between 2010/2011 and 2012/2013, mostly driven by a fall in enrollment in North West (-4.2%) and South East (-9.4%), whereas teacher growth in those two zones stood at 0.7 and 18.1 percent respectively. Overall, the trends in growth rates, in both teachers and students, does not suggest any specific impact on education outcomes, especially in the northern zones.

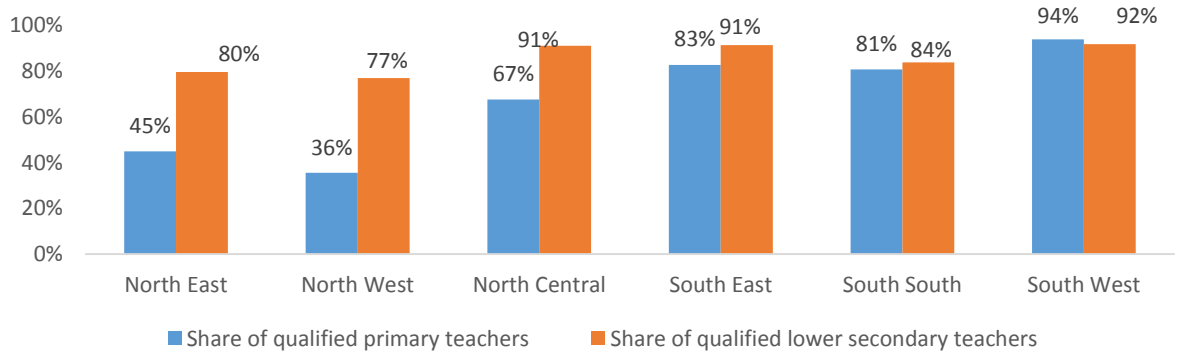
Figure 45: Trends of teaching staff and enrollment growth in over three-year period by zone and level of education



Source: Authors' estimate from NEMIS 2010 to 2013

208. **On the other hand, the lack of qualified teachers, within both the primary and junior secondary, is mostly a concern within the northern states and has direct implications on the education outcomes.** Figure 46 shows the share of qualified teachers for each level of education by zone. The lack of qualified teachers is particularly important at the primary level in the North East and North West zones. When considering the availability of qualified teachers in the existing teaching staff pool, the STR based only on available qualified teachers (Annex B, Figure B12) indicates that there is an inadequate number of qualified teachers relative to the currently enrolled students within both the primary and junior secondary levels in those two northern zones. At national level, the STR at the primary level increased from 40:1 to 65:1, and from 33:1 to 39:1 at the junior secondary level, driven mostly by the higher STR in the North East and North West zones. In particular at the primary level, the STR in the North West increased from 37 to 104 when considering only qualified teachers. This dramatic worsening appears mainly due to the Boko Haram insurgency, which led many teachers refuse to work in these zones. The lack of qualified teachers may be linked to the lower learning outcomes observed earlier in the north, such as the lower grade 6 results, completion rates and literacy rates.

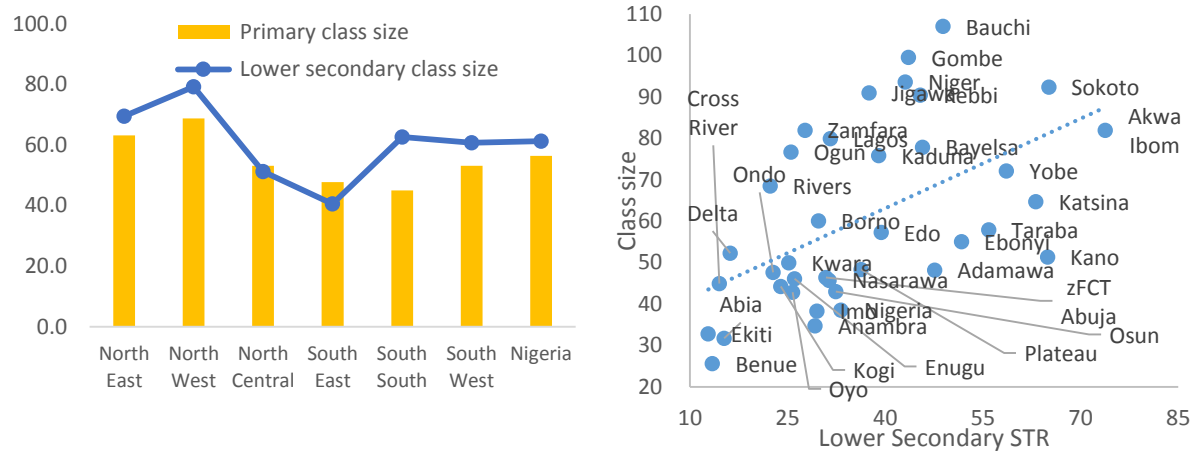
Figure 46: Qualified teachers- primary and junior secondary by geographical zone



Source: NEMIS 2013

209. **Average class size across Nigeria, often closely correlated with STR, were on average around 66 and 61 students in primary and junior secondary respectively, and tend to be higher in the North than in the South in both primary and junior secondary levels of education.** Figure 47 shows the class size in both primary and junior secondary by zone and the relationship between junior secondary STR and class size. The North East and North West had the highest class sizes with on average 63 and 69 students per classroom in primary and 70 and 79 students per classroom in junior secondary. STRs are lower than that in the North East and North West; so the higher class sizes within these two zones may indicate a lack of adequate infrastructure to accommodate all students. The strong correlation between class size and STR at the junior secondary level suggests that states with higher class size also suffer from high STR, which appears to heavily affect the northern states though there is some variation within the zones as well.

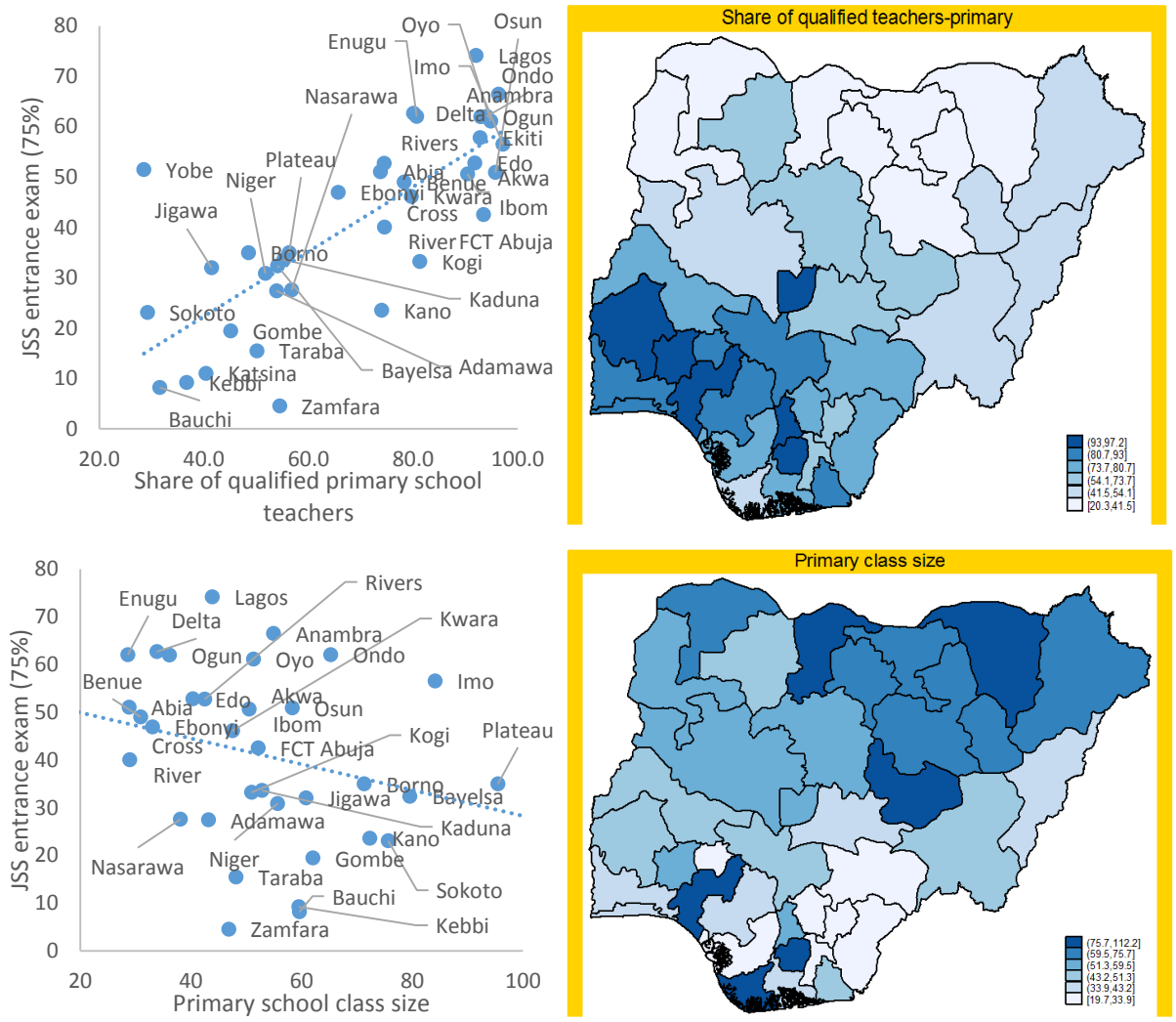
Figure 47: Class size at primary and junior secondary (left), (junior secondary STR vs. class size)(right)



Source: Authors' estimate from General Household Survey Panel 2010/11 and 2012/13 and NEMIS 2010 to 2013

210. **Overall, although competence of teachers matters for learning outcomes, qualifications of teachers also matter in impacting education outcomes**. Figure 48 shows the correlation between the share of qualified teachers in primary schools, primary class size, and grade 6 test results. While there is a clear correlation between learning outcomes and share of qualified teachers, class size does not have a strong direct effect. However, it should be noted that, in the modeling section, class size does negatively affect learning outcomes, when controlling for other factors. This clearly suggest that class size by itself is not a problem but when other factors are added, its compounded effect does matter. The southern part of the country tends to have a relatively high share of qualified teachers and lower class sizes, even if the differences compared to the north are not as pronounced as variation in educational outcomes. This is another aspect where financial input could improve learning outcomes. Additionally, it should also be noted that although other quality related school inputs such as learning materials and other school facilities are not fully captured in this analysis, in the states visited by the team, concerns regarding the condition of classes, including desks and tables, were also raised.

Figure 48: Teachers share of total state employment and admin share of basic education level, 2010



Source: Authors' estimate from General Household Survey Panel 2010/11 and 2012/13 and NEMIS 2010 to 2013

211. **Whether it be the availability of teachers, their qualifications, level of remuneration of the teaching staff at primary education level, or even the availability of adequate infrastructure, by its own admission, the government recognizes that resource shortage is an important contributor to low provision of quality education in Nigeria**. For example, legal provisions have not granted basic education enough financial resources and, according to the Nigerian government, "funding continues to be a major problem in government's effort to raise both quality and access to education. For instance, some State Governments are not forthcoming when it comes to funding basic education, as many fail to access their UBEC matching grant disbursement. Poor remuneration and working conditions of teachers, especially at basic education level continues to discourage qualified teachers [which is compounded by] decaying infrastructure and poor learning resources at all level." (Bureau of Public Service Reforms, 2014).

212. **In addition to the resource shortage, quality of education has suffered from a deterioration in academic integrity, which the M&E system has not been able to avert due to the lack of effective**

enforcement mechanisms in the quality assurance process. Figure 49 shows the average response on the 20 question survey administered to high-level representatives from 15 different states. The results show that while some issues are state specific, there are a few common concerns. As shown, academic integrity was listed as the most important concern. For example, 86 percent present of respondents agree or strongly agree that academic integrity is a key challenge in Nigeria while only 6 percent disagree or strongly disagree.

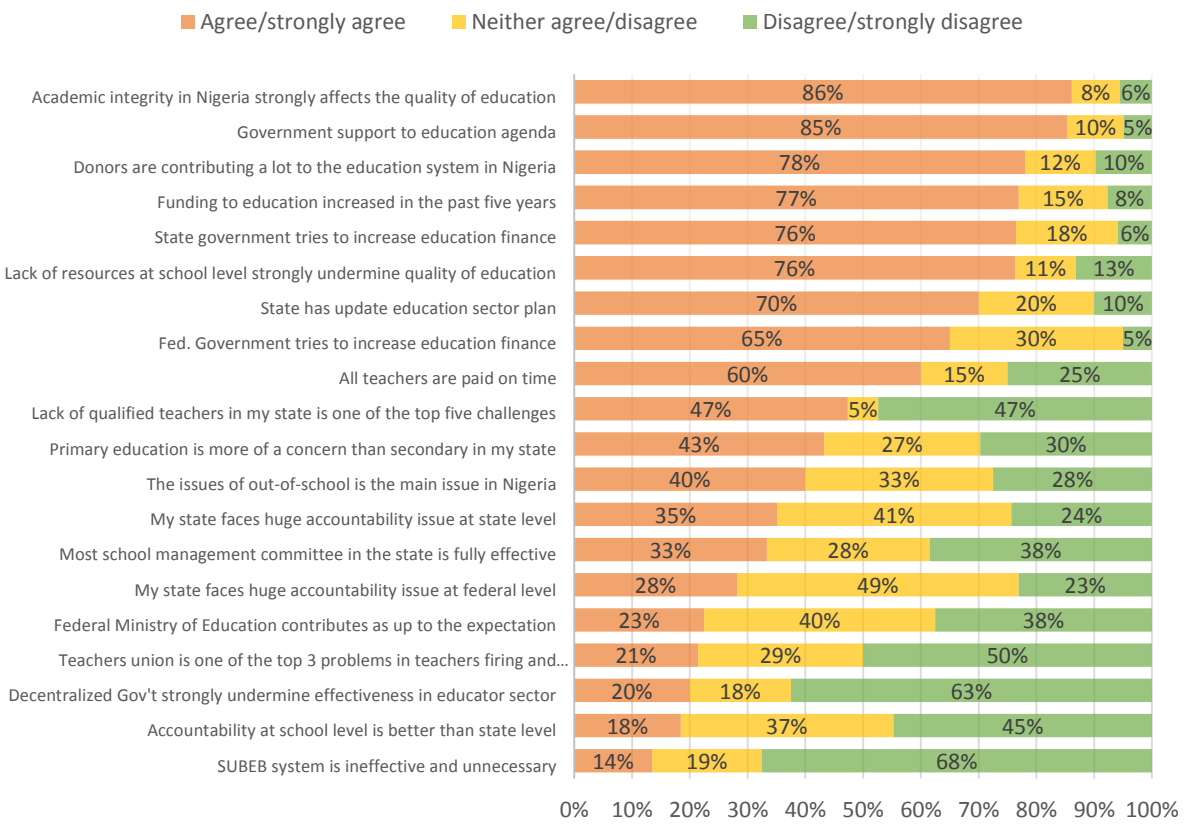
213. **Concerns about academic integrity extend to teachers, schools as well as students. Qualitative information from the second technical workshop with education sector experts revealed that academic fraud as well as the recurrent and protracted issues of teacher strikes are, in some states, key aspects of why parents choose to send their children to private schools.** The following are key highlights of the reasons why parents are sending their children to private school despite the fact that public schools are officially free, but in any case relatively cheaper in terms of household out-of-pocket payment: (i) in Nigeria teachers often go on strike, sometimes for months at a time, and parents prefer to keep their children in private schools because this ensures a degree of stability and continuity throughout the year, (ii) quality control in some private schools is at times less stringent and students prefer to stay in private school to benefit from an easier promotion from grade to grade, and (iii) cultural affiliations of communities to specific private and religious schools motivate parents to pay higher fees and keep their children in such schools[84]. In addition, some private schools use cheaper and less qualified teachers.

214. **The debate over teacher quality often focuses on academic fraud and false qualification but most states face the even more basic challenge of achieving adequate levels of qualified teachers- even if qualified just on paper.** The widely perceived reason is the failure in the teacher management system including lack of regular and consistent in-service training, proper salary review and a shortage of funds to pay attractive salaries. Political clout of teacher unions has also been highlighted as a hindrance to proper management of teachers; in some states it has been noted that teachers may influence the outcome of elections, thereby wielding influence over policymakers, making it hard for the implementation of an effective accountability structure. At the state and local levels in particular, teachers represent a significant share of public employees and are therefore an important constituency for elected officials. For example, a former state commissioner of education claimed that as a commissioner he could not remove a school principal without the concurrence of the local majority party leader[85]. Similarly some states attempted to institute polices that requires teachers to take a test, but this faced strong objection from the teachers union. This reflects three specific features of education in Nigeria: 1) the weight of local politics on the education system, 2) the influence of politics on policy implementation and 3) the weight of the education sector on politics.

[84] For example, in Kogi state repeated teachers' strikes encourage households to keep their children in private schools. This has led to a mushrooming of private schools in the state and a serious issue of non-compliant and non-accredited private schools. As such, these schools charge very small fees, which leads to low unit costs in private schools; Kogi has one the lowest private school unit cost among all states.

[85] Interview, October 2014.

Figure 49: Summary of response to 20 questions asked during workshop



Source: Authors' compiled from response from workshop participants

215. **There are inefficiencies in the teacher management system-- with overlaps in responsibilities resulting in duplicated efforts, for example in the M&E process**. All actors along the service delivery value chain engage in parallel monitoring and evaluation activities, from UBEC, SUBEB, LGEAs to SBMCs, but there is no clear coordination on accountability mechanisms across these various M&E activities.

216. **The lack of a clear and uniform HRM system has several implications on the quality of teachers as well as the ability to sustain high standards of teaching.** The high share of the teaching staff in the wage bill in Nigeria (specially at local and state government levels) has several implications; (i) as stated above, teachers influence political outcomes, which also influence any policy for quality improvement that requires teachers accountability, (ii) this affects the ability of LGAs to provide adequate salary rates to increase the moral/motivation of teachers, particularly for states with apparent shortages of teaching staff, (iii) given their low remuneration levels, teachers are often discouraged. This may also adversely affect teaching quality, especially if the teacher is regularly absent or late, which in turn affects learning outcomes, and lastly (iv) there is an important lack of female representation in rural areas, which heightens gender parity issues in the sector.

217. **With regards to the M&E system in Nigeria as it pertains to the regulation of the private sector, there is a lack of clear policy guidelines and of enforcement of rules and regulations, which encourages practices such as academic fraud- a clear source of system failure**. The lower quality private schools tend to use cheap and unqualified teachers, exploiting the failures and instability in the public school system and even appealing to cultural sensibilities within the Nigerian population. It is worth mentioning that there are private schools that meet high standards and in such cases, the state, such as Lagos, has been able to promote private-public partnerships to ensure better service delivery.

Summary of key conclusions

218. Learning outcomes, similar to access outcomes, tend to be stronger in the south. Whether measured by primary and junior secondary completion, literacy rates in grades 4 and 6, or performance on the standardized grade 6 examination for entry into federal unity colleges, learning outcomes indicate a similar north-south divide but to a lesser extent than in the access indicators. Supply side factors, whether direct measures such as public investment in education or indirect measures such as the STR or class size as proxies, tend to be more important in explaining the variations in learning outcomes than other factors like demand side variables such as gender, area of residence, and wealth status of the household.

219. Differences in learning outcomes can be linked to the availability, quality and use of the teaching staff. The overall growth in the number of teachers, especially qualified teachers, has not kept pace with the growth in students. In addition, there is no clear and uniform strategy in human resource management, which in itself has several implications. Given the high share of teachers in the wage bill: (i) teachers' unions exert strong influence on political outcomes, which translates into strong lobbying power on policies affecting teachers accountability, (ii) this affects the ability of LGAs to provide adequate salary levels to motivate teachers, particularly for states where there are apparent shortages of teachers, (iii) given the low incentive mechanism environment, teachers are often discouraged- which may also adversely affect teaching quality, especially if the teacher is regularly absent or late which in turn affects learning outcomes, and (iv), lastly there is an important lack of female representation in rural areas, which presents a serious gender parity issue in the sector.

220. The analysis shows, in turn, that adequate provision of these school inputs matter. Better student/student-teacher and class ratios and higher per-student government spending are positively correlated with better participation and completion rates at the regional level. Adequate school inputs, such as the presence of better-qualified teachers, correlated with better learning outcomes. These results cannot be interpreted in a causal manner; the findings indicate that higher government spending and better input ratios are associated with better outcomes in public schools.

221. There is no or very limited consistent if any and standardized assessments of learning levels or examinations in basic education to mainstream standards and ensure quality of education, especially given the fact that the UBE Act instituted automatic promotion between primary and junior secondary levels. There is no standardized or compulsory mechanism across states either for "effective school-based assessments", as stipulated in the UBE Act, or regarding the BECE examination at the end of grade 9, making it impossible to assess the performance of students at school level and across states.

222. Weak accountability and lack of systematic management of teachers adversely affects the competence, motivation and skills of teaching staff, which in turn contributes to low level of student learning outcomes. Some weaknesses also contribute to widespread issues of academic fraud and low integrity.

Key policy recommendations

Establish a clear and systematic HRM system

223. The HRM system should create mechanisms to hold teachers accountable in some way for student's learning achievements. Teacher performance is critical for education outcomes and it requires both incentives and an accountability mechanism for learning improvement. Accordingly, policy tools to enhance professional accountability should be carefully designed, calibrated and sequenced in order to ensure an effective teacher in every classroom. This requires: (i) an adequate supply of teachers; (ii) the ability to deploy teachers where they are required; (iii) training teachers with the required skills; and (iv) management and career structures that result in consistent, high-quality performance by teachers. Several countries have adopted different intervention modalities for teacher development. For example, in Kenya two programs, namely (i) 'school governance, teacher incentives, and student-teacher ratios' and (ii) 'teacher incentives, tracking and peer effects' were evaluated to have positive effects on basic education learning outcomes. The first program was based on a teacher annual contract and contract renewal conditional on performance. The second program focused mainly on teacher incentives for better learning outcomes (see Annex D for details).

224. Establish a clear minimum criteria guideline on teacher promotion and recruitment, as well as an incentivization mechanism including in-service training, and merit-based rewards. Given that basic education salaries are entirely paid from the federal revenue allocation, at least for those under SUBEB management, the federal government could yield greater influence on teaching force development. In particular, there should be a clear and transparent selection mechanism to identify teachers who should receive training. The current UBE Act does highlight this as one of the areas that should be promoted but the stipulation seems ineffective due to lack of any enforcement mechanism.

225. School report cards should be used as instruments for all stakeholders to engage in monitoring and improving the performance of schools and may also be useful as an input for policy discussion during education planning and budgeting stages. Disclosure of information collected on the school card promotes transparency and accessibility to diverse education stakeholders. This makes successful monitoring not just about generating information. Rather, it is also about creating institutional mechanisms through which monitoring can inform the development and implementation of policy. School report cards can be used in different dimensions including monitoring teacher's activities, evaluating school performances and efficiency, which are key for learning outcomes. Evidence from many countries including Nigeria's own experience from the Lagos state EKO project in secondary school shows that use of school report cards reveals key performance indicators. For example, refined tracking of learning outcomes has been introduced in Lagos state under the World Bank funded EKO secondary education project: school score cards capture several dimensions of learning achievements

under each subject which allows teachers to benchmark their own teaching effectiveness against that of their colleagues in the same school, with other neighboring schools, etc. School score cards under the project also capture other qualitative dimensions such as extra-curricular activities; school beautification, staff training, student counseling, communication, students' interest in learning and availability (e.g. whether they are busy with menial jobs during school hours), and reading habits. Similarly in India, monitoring teachers' classroom activities increased learning outcomes (see Annex D for details).

226. Nigeria faces huge challenges in deploying female teachers in rural areas. As such, the human resources management strategy should also focus on improving teachers' deployment in remote, rural and difficult locations. This could be done though hiring teachers locally and building their professional capacity through in-service training, as well as by providing a better incentive mechanism for retention.

227. Nigeria currently harbors a very large number of education sector staff engaged in M&E and administrative activities, and most of these staff are involved in duplicative efforts. Streamlining these efforts could allow for a redeployment of staff into more efficient roles within the system or could result in savings that could be recycled into other investments such as the purchase of vehicles to reach remote locations, providing more targeted in-job training to teachers, and supporting schools with infrastructure needs.

228. In order to promote the competence and performance of teachers in the classroom, relevant curricula and teaching materials should be provided. In addition, in-service teacher training programs should be provided, based on the school-level needs and lacunae of the teaching staff. As recorded during the field interviews, participation in the teacher career development programs is often arbitrary. In order to ensure teacher training programs are effective, there should be a clear and transparent selection mechanism to identify teachers who should receive training, and there should be clear planning for improvement of training programs (see Annex D for evaluated programs in select countries).

229. An increase in public education spending earmarked to teacher training and professional development is needed, including the expansion of existing teacher training centers/colleges and in-service training at local or LGA centers, to improve learning outcomes. In particular, more financial support could be given to providing in-service training to teachers to maintain high standards of teaching as well as reinforce the initial qualification process and avoid fraudulent qualifications. For example, in India, group and individual teacher performance pay programs implemented across a large representative sample of government-run rural primary schools in the Indian state of Andhra Pradesh found consistently positive and significant impacts of the individual teacher incentive program on student learning outcomes across all durations of program exposure (see Annex D for details).

230. Lastly, SBMCs can be further operationalized to strengthen school management and performance oversight. For example, strong SBMC activity reduces teacher and student absenteeism and increases in-class presence of teachers which tends to be associated with high learning outcomes as indicated in the recent SDI report conducted in four states (Anambra, Bauchi, Ekiti and Niger). There are several instances showing the positive effect of school based management on learning outcomes. For example, community-based information campaigns that provided information through a structured

outreach program to communities had a positive impact on learning outcomes in Indonesia, India and Mexico (see Annex D for details).

Strengthen accountability mechanisms and data collection environment to reduce likelihood of academic fraud practices

231. The education sector in Nigeria needs to establish a proper national academic accreditation system and information verification center as well as a strong and consistent M&E system for verification of the certificate issuing process. In fact, creating a tracking mechanism to verify authenticity of diplomas would minimize risks related to academic fraud which has been an issue documented across zones.

232. The National Education Management of Information System (NEMIS) needs to be adequately funded and rolled out; it needs to build on an adequate integration of state and local level Management of Information System (MIS) capacity and be designed to provide necessary evidence to each tier of the Nigerian government: federal, state and local; institutionalized third party monitoring (under SBMCs) needs to be operationalized as well, in order to allow for data consolidation at local, state and federal level and disaggregation at school level to serve the purposes of policy makers as well as of local communities. A stronger NEMIS would enable more reliable data and therefore stronger empirically based policy making.

233. To strengthening capacities for evidence-based decision-making, data quality needs to be drastically improved, planned surveys need to be funded, performance indicators need to be captured along the entire value chain to help identify delivery bottlenecks, institutionalized third party monitoring needs to be operationalized and information should be made publicly available. Learning outcome results should also be linked to teacher management.

Ensure school environment and infrastructure are conducive to learning

234. Availability of adequate school inputs and good learning environments is key for learning outcomes, and as such, it is crucial that appropriate funds (operating costs and capital expenditure) be earmarked to improve the learning environments. For example, matching grants, which are a key source of funding for infrastructure projects, are limited by the states' ability to meet the matching requirement. This is one of a number of political factors that undermine the equality of learning (see Annex D for evaluated programs in select countries).

Introduce a standardized and streamlined learning assessment system

235. For better M&E of learning outcomes, Nigeria needs to establish standardized evaluation system such as a compulsory national test at the end of each level of education. The current approach relies heavily on arbitrary school-based assessments and state-level examinations that are not directly comparable across states. This makes it impossible to accurately assess children's performance to ensure

standards are being met (see Annex D for evaluated programs in select countries). For example, with a goal of improving education quality, in 2005 Brazil's Ministry of Education expanded its sample-based assessment called the National Basic Education Evaluation System (SAEB) and the assessment has led to marked progress in raising math skills of low performing students (see Annex D for details).

Matrix for policy recommendations

236. The detailed set of policy recommendations was presented above under each section and the matrix below summarizes these recommendations, highlighting sequencing of actions (steps) for effective implementation of the recommendations which seek to improve both equity and quality. However, it should be noted that the first step is not exclusively a precondition to the next step, but is rather an indication that the preceding step is critical for the subsequent step to be most effective and efficient in addressing the issues. The matrix also aligns policy action to the responsible tier of government. Although policy decisions are not taking place at the school level, in order to strengthen actions on the ground, some recommendations also refer to school level action such as action by SBMC or communities. When policy action is critical from one tier of government but requires policy action from the other tiers, a double check mark (✓✓) is used to indicate when action from one tier is particularly crucial. The matrix also suggests a timeline for the policy action where some recommendations require immediate action but may require longer to effectively complete. In this matrix, we assumed activities indicated as "short term" are ones that can be implemented in the next 1-2 years; medium term is 3-5 years; and long term more than 5 years. The matrix presents recommendations for equity and quality separately following the analysis in the main text but it should be also noted that equity-related policy recommendations are a necessary condition for improved quality outcomes.

Policy recommendation matrix							
Prioritiz-ed Steps	Sector issues	Recommendations	Recommended to				Time-line*
			Federal/UBEC	State/SUBEB	LGA/LGEA	School/SBMC	
	Equity/access						
STEP 1	Strengthen legal and institutional environment in education policy implementation	Establish clear accountability channels of basic education services delivery	✓	✓			SM
		Develop national framework ensuring policy compliance	✓✓	✓			SM
		Allow full participation of local government councils in the decision making and the supervision of school performance process		✓	✓		ST
		Establish national framework and policies to effectively address inequality by reframing UBEC role to be centered on problem driven actions.	✓				ST
STEP 2	Create incentive mechanism in basic education policies and ensure alignment of resources with sector priorities	Establish incentives encouraging policy compliance; an adequate budget should be allotted to that effect.	✓	✓			SM
		Employ results-based and policy-driven intervention framework focusing on states with the greatest needs	✓	✓			SM
		Streamline policies that trigger vertical and horizontal imbalance in services delivery	✓✓	✓			SM
		Empower school principals/head teachers		✓	✓	✓	ST
		Set goals and targets for policy action	✓	✓	✓	✓	ST
STEP 3	Ensure adequate education budget with focus on lagging states and communities	Increase spending on education while targeting challenge areas.	✓✓	✓	✓		SM
		Introduce explicit mechanisms to ensure more effective coordination of resource mobilization between the three tiers of government.	✓✓	✓			SM
		Use unit cost as an instrument in the preparation of policies aimed at accommodating out-of-school children.	✓	✓			ST
		Adopt equity in resource allocation formula	✓	✓			ST

STEP 4	Earmark budget for basic education reducing potential inefficient use of funds in the sector	✚ Earmark basic education sector budget	✓ ✓ ✓	ST
STEP 5	Adopt financing and governance strategies to address poverty, social, cultural and other barriers to achieving education goals	✚ Institute pro-poor education policy intervention programs. ✚ Ensure gender-friendly school environment. ✚ Expand alternative learning programs/ second chance education for parents and youth. ✚ Strengthen SBMC and other types of community-level grassroots mobilization ✚ Prepare community-oriented programs through SBMC to increase parent participation in school events and child activities	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	SM SM SM SM SM
STEP 6	Establish a strategic non-public school management system	✚ Establish public-private partnerships (PPP) ✚ Ensure accountability and standards for non-public schools ✚ Establish national and local governance framework for oversight of private and religious schools	✓ ✓ ✓ ✓ ✓ ✓	MT ST ST
STEP 7	Strengthen M&E system and practices to ensure consistency of information and enforceability of policies	✚ Strengthen NEMIS capacity ✚ Clarify role of local government in M&E system and strengthen it ✚ Operationalize SBMCs ✚ Reduce duplication of efforts in basic education management by consolidating M&E efforts, etc.	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	ST ST SM ST
STEP 8	Establish response measures to direct and indirect impact of armed conflicts on the education sector	✚ Establish mechanism to mitigate and cope with conflict and emergency situation in services delivery	✓✓ ✓	SM

	Quality				
STEP 1	Establish a clear and systematic human resource management system	✚ Establish teacher incentive schemes and accountability framework	✓	✓✓	MT
		✚ Establish clear minimum criteria guidelines for teacher recruitment, promotion, and deployment	✓	✓	ST
		✚ Use school report card as instrument for performance evaluation		✓ ✓	ST
		✚ Develop incentive package for deployment of teachers to remote and rural areas	✓	✓✓	SM
		✚ Redeployment of non-teaching education sector staff into more efficient roles		✓	SM
		✚ SBMCs can be further operationalized to strengthen school management and performance oversight		✓ ✓ ✓	ST
		✚ Provide systematic/targeted in-service teacher training	✓	✓✓	ST
STEP 2	Strengthen accountability mechanisms and data collection environment to reduce likelihood of academic fraud practices	✚ Establish national academic accreditation system and information verification center to avoid the practice of academic fraud.	✓✓	✓	ST
		✚ Provide adequate funding for NEMIS for reliable and timely data collection for policy making	✓	✓	ST
		✚ Institutionalized third party monitoring	✓✓	✓	MT
STEP 3	Ensure school environment and infrastructure are conducive to learning	✚ Earmark education spending allocation to operating costs and capital expenditure	✓	✓ ✓	ST
STEP 4	Introduce a standardized and streamlined learning assessment system	✚ Establish a standardized national learning assessment system	✓		ML
*ST: Short-term, SM: Short-Medium term, MT: Medium term ML: Medium-Long term					

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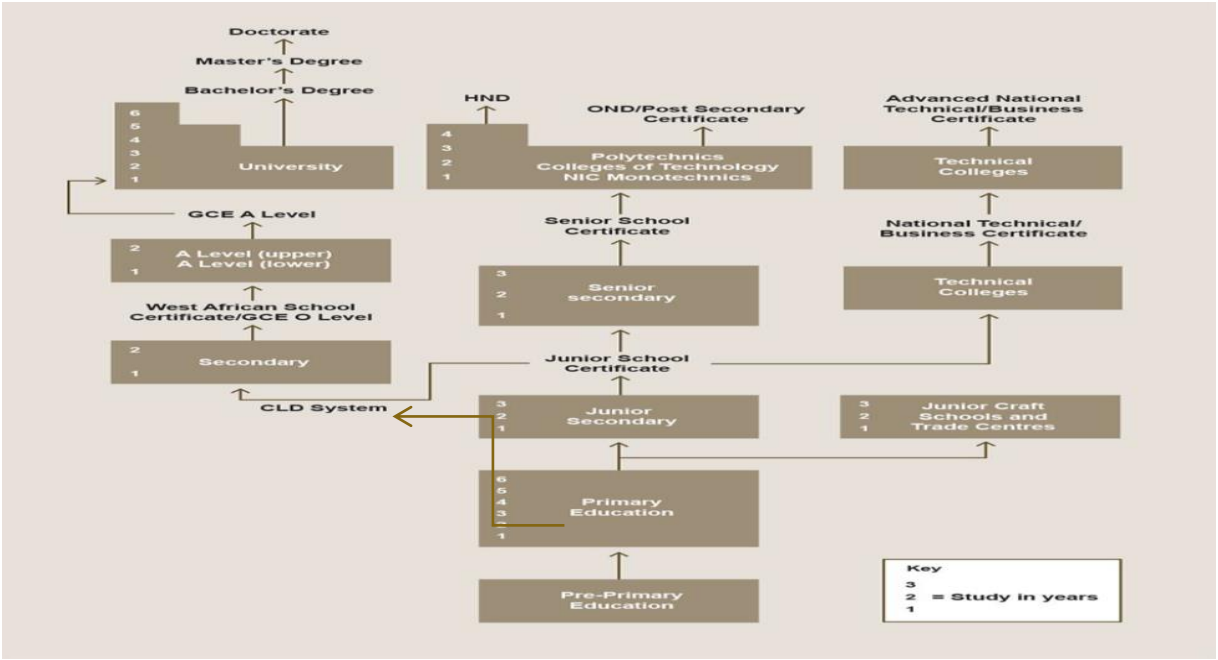
Annexes

Annex A: Current education system, update on sector performance and management issues

Structure of the education system

1. The formal education system in Nigeria uses a common basic structure across the country. The Nigerian education system follows the 1-6-3-3-4 structure, starting with one year of pre-primary[86] at age five, followed by six years of primary education, which usually targets children aged 6 to 11 years old. Students then proceed to junior secondary school (JSS) which lasts 3 years (JSS1- JSS3) targeting children aged 12-14 years old. Upon successful completion of the JSS level of education, students advance to senior secondary school (SSS) or technical college, which also lasts three years. After completing SSS, students can advance to the first cycle of higher education which lasts 4 years for the Bachelor's, followed by 2 years for the Master's and an additional 2-3 years for the doctorate (Figure A 1). Basic education in Nigeria is defined as six years of primary followed by three years of Junior Secondary School level (grades 1-9) and is designed to equip all Nigerian children with a common education foundation.

Figure A 1: Education system and qualification structure



Source: Federal Ministry of Education, Federal Government of Nigeria

[86] Pre-school usually corresponds to 3 years of schooling for children aged 3-5. However, the Federal Ministry of Education (FMoE) announced in 2011the addition of one-year of pre-primary education as part of the official system to better prepare children for school (National Bank of Nigeria Annual Report, 2011).

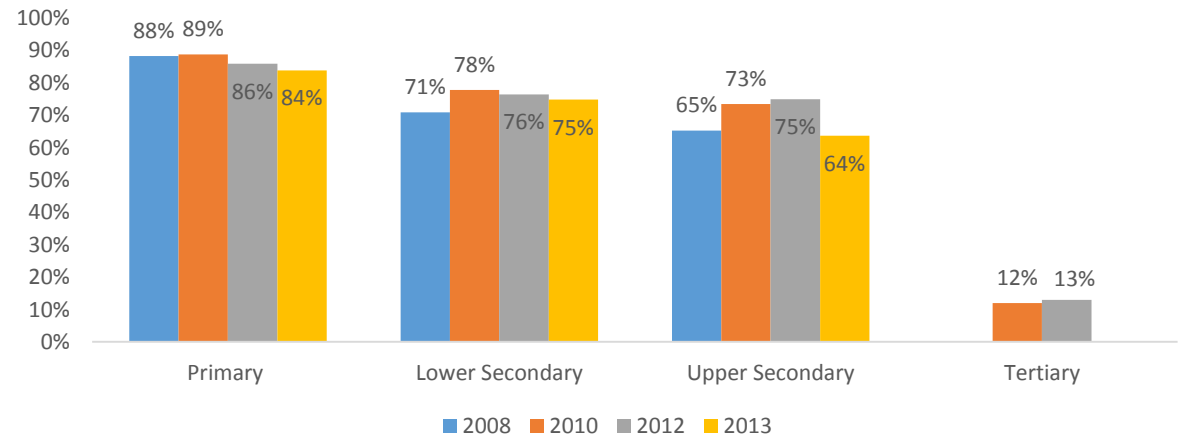
Education sector performance

2. This annex presents the evolution in the education sector performance in Nigeria between 2008 and 2013, based on 2008 and 2013 Demographic and Health Survey (DHS) data, and 2010 and 2012 GHS data. This diagnostic of the education sector performance centers on three main areas: (i) access and equity, (ii) MDGs, and (iii) dropout, repetition, delayed entry and retention.

Enrollment

3. Access to education in Nigeria has stagnated over the last several years and remains below its full potential at all levels of education, including primary school. The GER stood at 84 percent at primary level, 75 percent in junior secondary, 64 percent in upper secondary in 2013, and 13 percent in tertiary in 2012, and has generally either stagnated or decreased in recent years at all levels of education (Figure A 2). Access remains generally very low, even at primary education level even though primary education has been the focus of the UBE program since 1999. Access at tertiary level is particularly low with only 12 percent GER in 2012.

Figure A 2: Gross enrollment rate by level of education



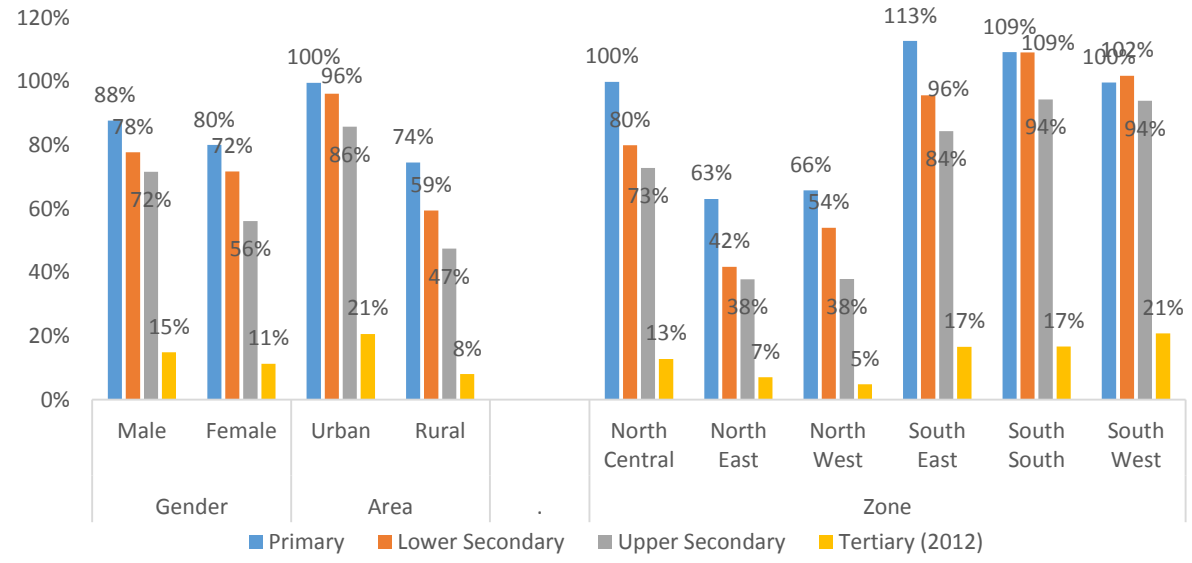
Source: Authors' Calculation based on Demographic and Health Survey (DHS) for 2008 and 2013, General Household Survey Panel 2010 and 2012
Note: Tertiary GER for 2008 and 2013 are not reported since DHS data does not report enrollment past age 24 and as such would grossly understate the GER.

4. Access to education for girls and residents of rural areas has not improved and remains more difficult than for the general age cohort at all levels of education. In Nigeria like many other developing countries, there are disparities in access depending on the area of residence and gender. Participation of girls in education remains below that of boys across all levels of education (Figure A 3) and the gender gap is significantly more pronounced at the upper secondary level where the GER among girls is 56 percent compared with 72 percent among boys. The difference between areas of residence is even starker with a GER of 100 percent in urban areas compared with 74 percent in rural areas at the primary

level, especially given the country's focus on increasing access through Education For All policies (Figure A 3).

5. The zonal breakdown of access indicates great variation within Nigeria and highlights the pronounced disparity in access between the north and the south. Whereas all southern states achieved GERs close to 100 percent and above in 2013 in basic education, the north west and north east registered a GER of 66 and 63 percent, respectively, at the primary level and 54 and 42 percent, respectively, at the junior secondary level in 2013. North Central, which includes the FCT Abuja, fares considerably better than the other northern states with 100 percent GER at primary and 80 percent at secondary.

Figure A 3: Gross enrollment rate by gender, area and zone, for all levels of education



Source: Authors' Calculation based on Demographic and Health Survey (DHS) for 2008 and 2013, General Household Survey Panel 2010 and 2012

Note: Tertiary GER is at 2012.

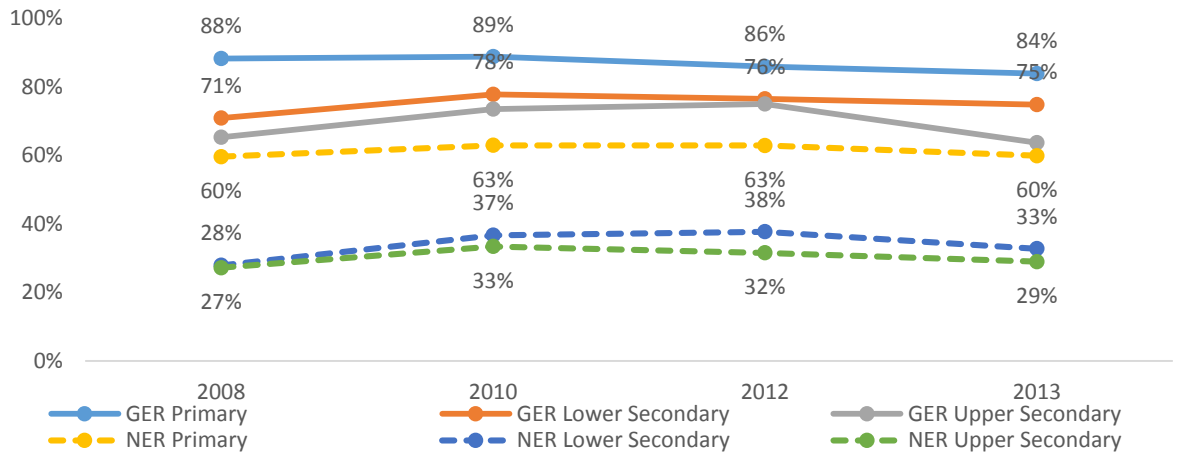
Dropout, repetition and overage children in the system

6. This sub-section considers some aspects of the internal efficiency of the education system in Nigeria, where internal efficiency is defined as the ability of an education system to educate the greatest number of students in the shortest period of time and most efficiently. Several indicators are considered, including the NER as an indicator of the overage children in the education system, repetition and dropout rates. Repetition and dropouts have significant impacts on assessing the education system's internal efficiency because repeating grades means more years of schooling requiring more resources to be invested and higher costs per output (the completion of a level). In fact, dropping out early from the education cycle, at primary school level for instance, has greater implications on the economy than inefficiencies in investment in education or wastage of public

resources. This is because dropout has direct implications such as an increase in illiteracy in the population and a higher risk of child labor.

7. The Nigerian education system has a significant share of overage children at the primary level and this carries forward into further education levels as well. The large difference between the GER and the NER at all levels of education indicates the sizeable presence of overage children in the system, with GER of 84 percent and NER of 60 percent[87] in 2013 at the primary level (Figure A 4). This could be in part due to delayed entry into the school system- children in Nigeria start school on average 10 months late- but also due to repetition or dropouts who re-enter the education system later on.

Figure A 4 : Gross and net enrollment rates: overage children, 2008-2013



Source: Authors' Calculation based on Demographic and Health Survey (DHS) for 2008 and 2013, General Household Survey Panel 2010 and 2012

8. Dropout rates, especially at the primary and upper secondary levels, pose a significant problem for the Nigerian education system, especially within rural areas at all levels of education and for girls at the basic education level. The dropout rates at the primary level in 2013 were 11 percent, but as high as 14 percent in rural areas and 11.3 percent among girls (Table A 1), indicating a weakness in the system in terms of retaining students who may be considered more vulnerable, such as girls and those from rural areas, who could benefit the most from completing this level of education.

9. Compared to dropout rates, repetition rates are much lower, which is not surprising given the automatic promotion policy in force at the basic education level. The debate on repetition is not new and some supporters say that failing students lose interest in learning and it is better for them to repeat a grade. The factors that decide repetition are not only students' learning outcomes but also teachers' qualification and schooling conditions. Although the impact of repetition on learning achievements is not empirically proven, there is a significant correlation between repetition and dropout. Also repetition is an inefficient usage of public resources as it costs more for one to graduate. Repetition

[87] 60 percent NER in primary level means that only six out of 10 children in the age group 6-11 years old are in their age-appropriate class in primary school.

rates at the primary level were about 5.1 percent, with 5.0 percent and 5.6 percent at the junior secondary and upper secondary respectively.

Table A 1 Dropout and repetition rates by level of education by gender and geographic zone						
	Dropout (%)			Repetition (%)		
	Primary	JSS	SSS	Primary	JSS	SSS
Male	10.84	5.51	12.69	5.05	5.19	6.43
Female	11.3	6.33	8.71	5.09	4.82	4.49
Urban	6.36	5.44	7.16	6.9	5.12	7.07
Rural	13.57	6.17	13.95	4.08	4.96	4.53
Total	11.04	5.89	11.03	5.07	5.02	5.62
Source: Authors' Calculation based on Demographic and Health Survey (DHS) for 2008 and 2013						

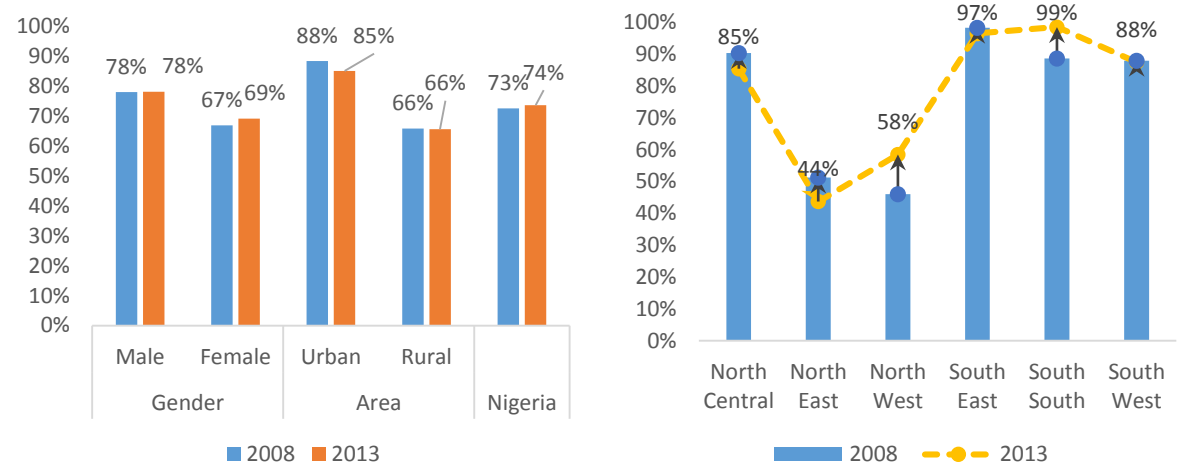
Millennium development goals performance

10. As described above, access to education has stagnated since 2008 and a big effort is needed in order for Nigeria to keep its commitments to the Millennium Development Goals. Little progress has been made to (i) have all children complete a full course of primary schooling, and (ii) eliminate gender disparity at all level by 2015, and it is unlikely that the country will meet its targets. Particularly, the low NER and low primary completion rates, coupled with persistent delayed entry into the schooling system and high out-of-school rates are significant barriers in achieving the education MDGs (Goals 2 and 3). Given the country's poor trends in ensuring completion of the primary level of education and equal access for boys and girls, it is highly unlikely that Nigeria will meet its 2015 MDG target.

11. The Primary Completion Rate (PCR) is stagnating and generally remains below the MDG target. The PCR, like enrollment trends, did not improve much between 2008 and 2013, increasing from 72.5 percent in 2008 to 73.4 percent in 2013. The strong disparities across gender and area residence (urban vs. rural) also persist, remaining unchanged into 2013. In particular, the PCR among girls was lower (69 percent compared to 78 percent among boys) and the PCR for children in rural area much lower as well (66 percent compared to 85 percent in urban areas) (Figure A 5).

12. However, the comparison of PCR across zones in Nigeria indicates that the north performs less well than the south, particularly in North East and the North West, although the North West has improved the most over this period. PCR among the southern zones varied between 88 and 99 percent in 2013 compared with 44 and 58 percent in the North East and North West, respectively. A closer look shows that the North West showed the most improvement between 2008 and 2013, increasing by 12 percentage points, although it remained at just 58 percent. With the exception of South South, all of the other zones had little change in their PCR during the same period.

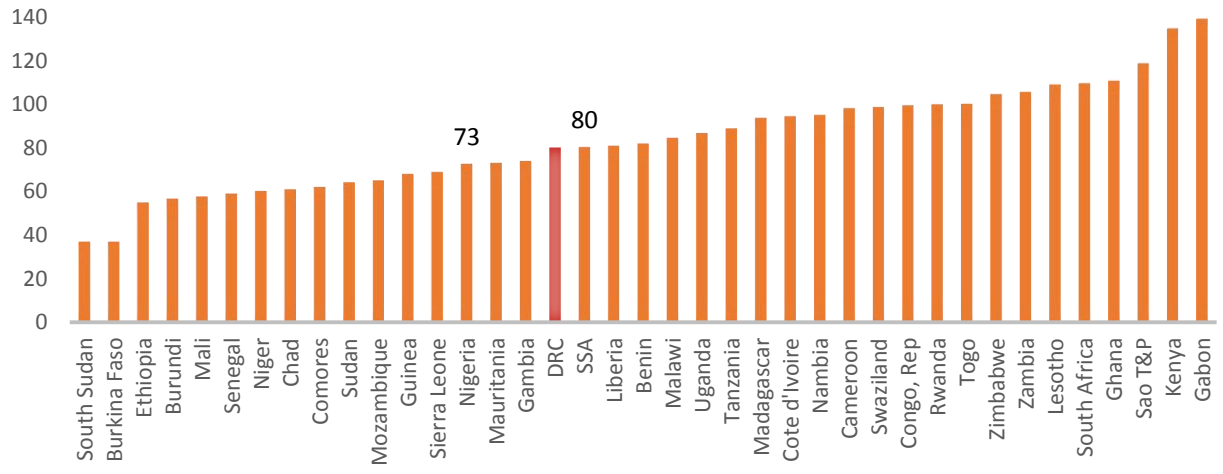
Figure A 5: Primary Completion Rate (PCR) by gender, area and Nigeria (left) and PCR by zone (right)



Source: Authors' Calculation based on Demographic and Health Survey (DHS) for 2008 and 2013

13. With a 73 percent PCR, Nigeria still is below the SSA average of 80 percent and still lags behind many of its neighbors (Figure A 6). Even when compared with its immediate neighbors (other than those affected by conflict), such Cameroon (98 percent) and Benin (85 percent), Nigeria's performance is still lagging. Ghana, the other English-speaking country in the zone, also outperforms Nigeria with a PCR of about 111 percent.

Figure A 6: Primary Completion Rate (PCR) for select SSA countries



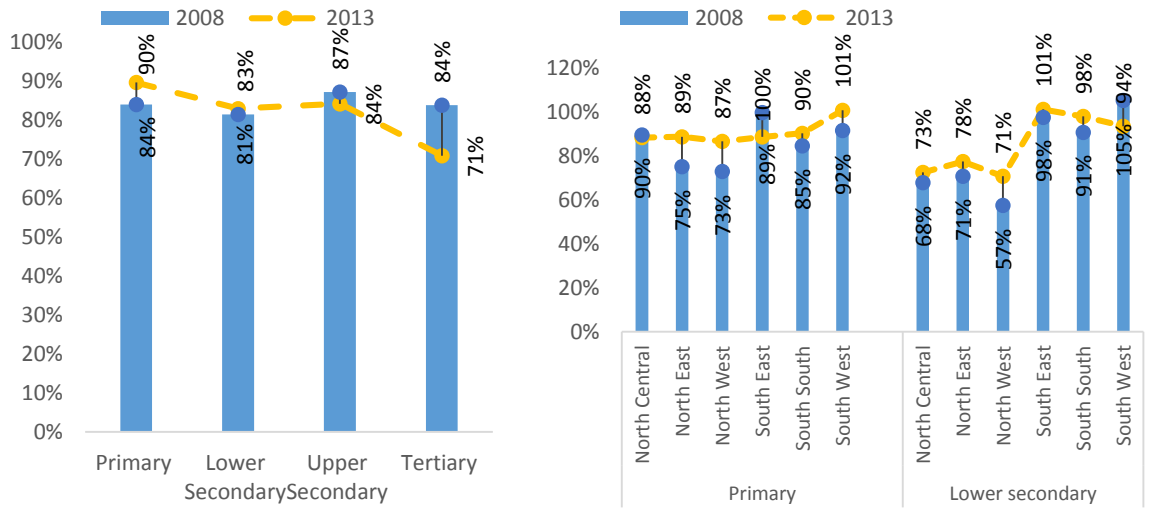
Source: Authors' calculations using Demographic and Health Survey (DHS) 2013 for Nigeria and similar surveys for the rest[88]

[88] Benin (2010), Burkina Faso (2010), Burundi (2010), Cameroon (2011), Chad (2011), Cote d'Ivoire (2011), Comoros (2004), DRC (2012), Ethiopia (2011), Gabon (2011), Gambia (2010), Ghana (2010), Guinea (2012), Kenya (2008), Lesotho (2011), Liberia (2010), Madagascar (2010), Malawi (2010), Mali (2010), Mauritania (2008), Mozambique (2009), Namibia (2010), Niger (2011), Nigeria (2010), Rwanda (2010), Sao T&P (2010), Sierra Leone

14. Nigeria is also lagging in its MDG commitment to address the gender gap in access to education, especially at the primary level of education. Gender disparities in enrollment at all levels of education have not significantly narrowed since 2008, and despite some minor improvement from 84 to 90 percent at the primary and from 81 to 83 percent at the junior secondary, the gender parity index (GPI) remains below the target of 100 percent. In 2013, primary, junior secondary, upper secondary, and tertiary level GPIs, of 90 percent, 83 percent, 84 percent, and 71 percent respectively, indicated a persistent imbalance in the education system (Figure A 7).

15. The breakdown of the gender gap by zone for basic education (primary and junior secondary) indicates that the northern states are even further away than the rest of the country from achieving the MDG goal of gender equality in access to education, although they made the most progress between 2008 and 2013. The North East and North West zones increased their GPI by 14 percentage points each between 2008 and 2013 at the primary level, reaching 89 and 87 percent respectively while the South East and South West were at 100 percent in 2013. However, at the junior secondary levels, the northern zones still have much work to do to catch up to the south with GPIs between 71 and 78 percent in 2013 (Figure A 7).

Figure A 7: Gender Parity Ratio by level of education (left), by zone for primary and junior secondary (right)



Source: Authors' calculations using Demographic and Health Survey (DHS) for 2008 and 2013

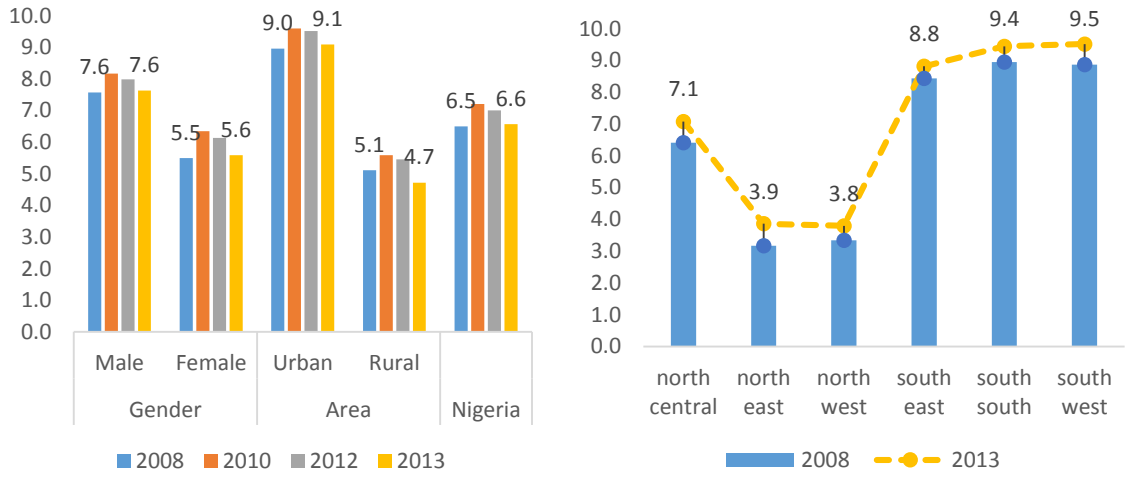
Educational attainment of the population

16. The education performance of a country is directly tied to how well-educated and productive its labor force is and therefore how well-prepared the work force is to respond to demand in the labor

(2011), Senegal (2011), South Africa (2012), South Sudan (2009), Sudan (2009), Swaziland (2010), Tanzania (2010), Togo (2011), Uganda (2010), and Zambia (2010), and Zimbabwe (2011)

market. In terms of the average years of education, the educational attainment of the working age population has not changed much since 2008, increasing from a national average of 6.5 to 6.6 years between 2008 and 2013. The disparities between male and female remain unchanged with an average of 7.6 years of school for males and 5.6 for females, and the disparities between urban and rural remain very high with an average of 9.1 in urban areas compared with 4.7 years in rural areas (Figure A 8).

Figure A 8: Educational Attainment of working age population (15-64 year olds) by area and gender, 2008-2013, and by zone

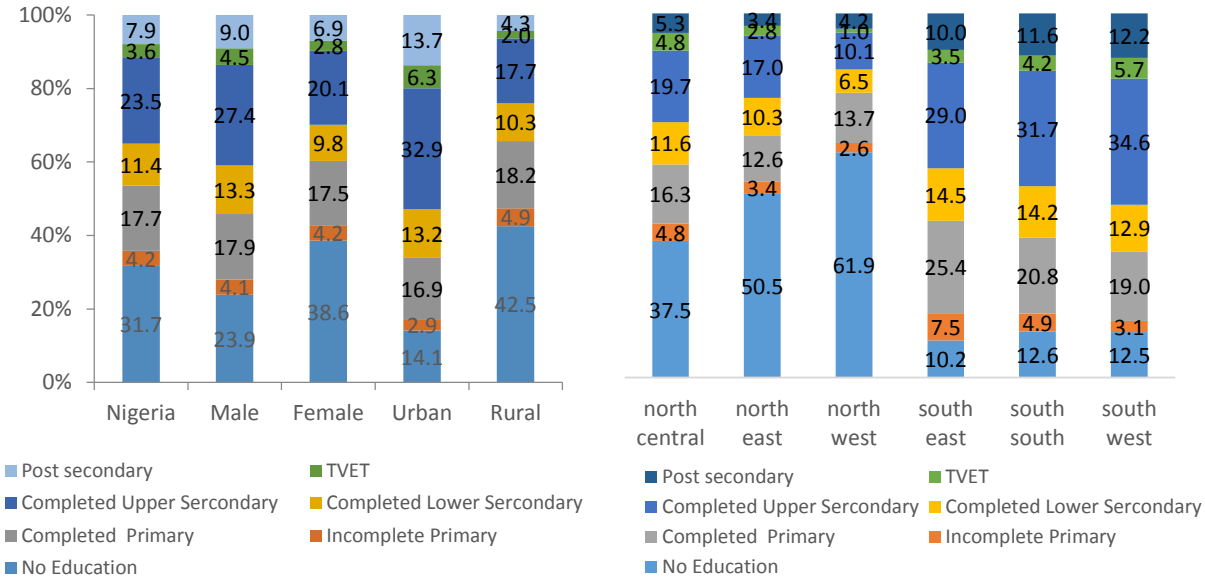


Source: Demographic and Health Survey (DHS) for 2008 and 2013 data, General Household Survey Panel 2010 and 2012 data.

17. About 54 percent of the population has completed primary education or more, although 32 percent of the working age population has no education at all. This is especially true among women (39 percent without education) and residents of rural areas (43 percent without education). The well-educated group remains urban residents where 66 percent of the population has completed basic education or higher (Figure A 9).

18. The zonal breakdown of education attainment of the labor force indicates very strong disparities between north and south. The share of the working age population with no education in the north ranges from 37.5 percent for North Central, 50.5 percent for North East and 61.9 percent for North West compared with 10.2, 12.6 and 12.5 percent in the South East, South South and South West zones, respectively. The zone with the best-educated workforce is the South West where 84 percent have at least primary or higher.

Figure A 9: Educational Attainment by level of education of working age population (15-64 year olds) by area, gender and zone

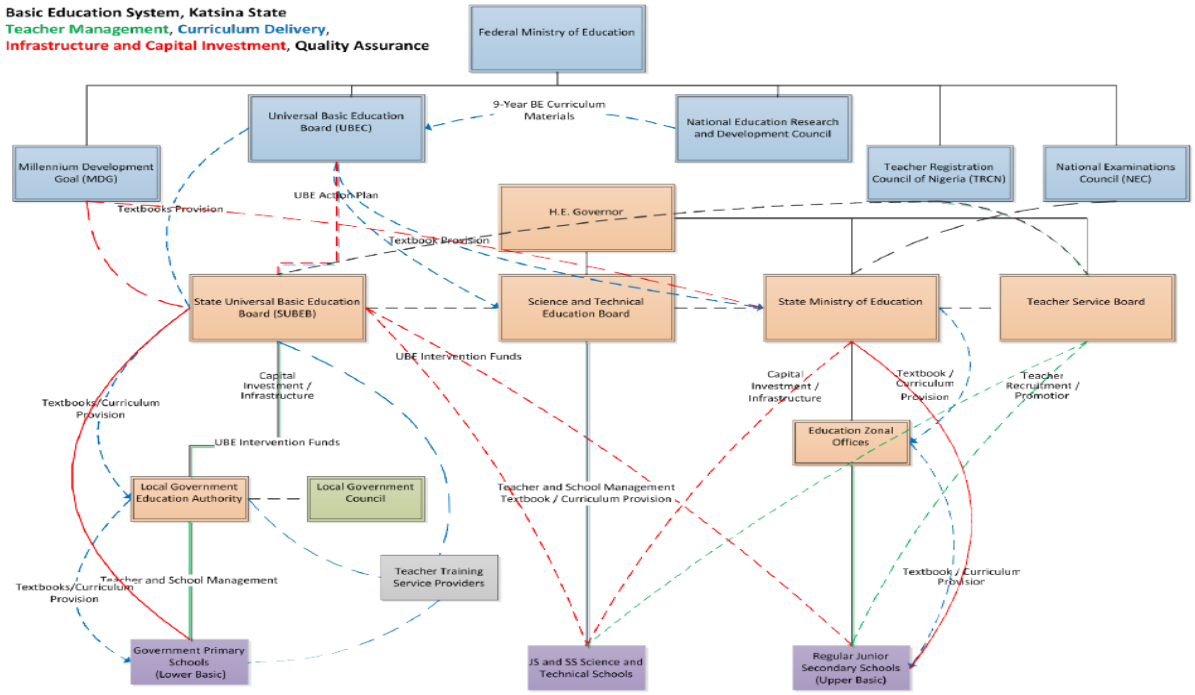


Source: Demographic and Health Survey (DHS) for 2008 and 2013 data, General Household Survey Panel 2010 and 2012 data

Sector management issues

Figure A 10: A sample of recommendations and decisions of the National Council of Education	
2006	Establishment of School Based Management Committees in all state by March 2007
2007	Devolution of school census to the state and development of State Education Management of Information System Initiate a review of the UBE Act, make its provisions more realistic, enforceable and allow for Federal intervention in Basic Education to be needs-based and driven by States' Strategic Action Plans Create and autonomous education quality assurance parastatal For the Federal ministry of Education to make adequate budgetary provisions for data collection nationwide for better planning and effective monitoring and evaluation Elaboration of a policy on partnership in education Training and ensuring performance of SBMCs Drafting of a National Teacher Education policy States to inspect nomadic schools for quality assurance States to create a PPP desk within the state ministry of education and harmonize taxes and levies raised by private schools Consider the establishment of a bank to fund private schools Recruiting more female teachers, especially in rural areas Mainstreaming best practice under the donor funded Girls' Education Project
2009	To expedite the creation of the National Quality Assurance Commission Elaborate an action plan for in-service training for Maths and Science teachers For states to increase the pace of accessing the UBE intervention fund For states to implement the National Gender policy on basic education For SUBEBs to take over the donor funded Nigerian Girls' Education Initiative to ensure its sustainability State to comply with guidelines on SBMCs For states, local governments and community leaders to coordinate to eradicate examination malpractice For state to start continuous assessments in basic education
2010	Recommends training teachers on the use of computers Approved Quality Assurance instruments for basic education
2011	For the state to gradually phase out unqualified teachers For the states to recruit interns under the Federal Teachers 'Scheme (funded under the UBE intervention fund) Approved the reversal of the policy on the disarticulation of junior secondary schools
2012	Approved a draft curriculum for non-formal education Approved the use of standard core textbooks developed at national level across the states Approved a revised structure for the curriculum in basic education
2013	Recommends states to develop a Teacher recruitment and Deployment procedure and guidelines for transparency and accountability Include private school teachers in capacity building programs at a cost incurred to the school owner
Source: Federal Ministry of Education, 2014	

Figure A 11: Mapping of the institutional framework and of its functionalities in the state of Katsina



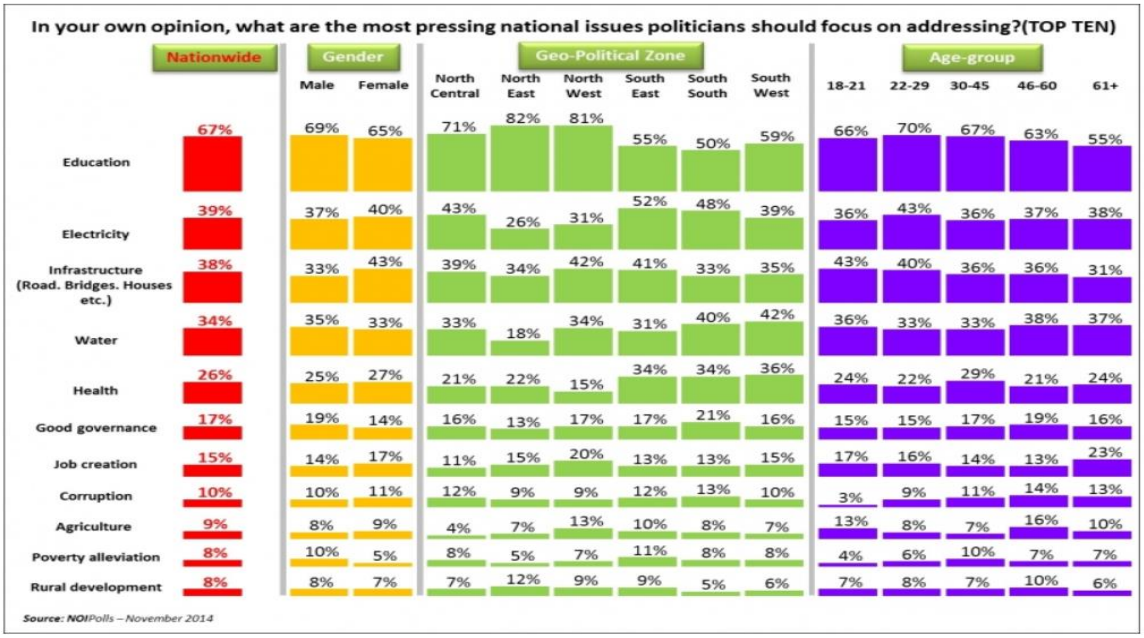
Source: USAID, 2014

Figure A 12: Number of koranic and Islamic schools across geo-political zones

Geo-political zone	State	No. of Qur'anic Schools	No. of Teachers	No. of Enrolment
North–East	Adamawa	2,139	--	141,951
	Borno	55,000	125,000	2,244,000
	Bauchi	4,703	10,736	301,980
	Gombe	2,124	4,670	123,923
	Taraba	--	--	63,168
	Yobe	2,191	8,694	220,745
	Total	66,157	24,100	3,095,767
North–West	Jigawa	5,574	12,715	258,280
	Kano	14,335	45,454	1,272,844
	Kaduna	7,768	9,933	250,366
	Katsina	8,828	13,246	529,530
	Kebbi	8,200	--	328,000
	Sokoto	9,551	25,004	1,145,145
	Zamfara	5,994	8,390	1,118,835
	Total	60,250	114,742	4,903,000
North–Central	Benue	136	483	14,669
	Kogi	529	4,106	119,462
	Kwara	5,126	--	271,258
	Nasarawa	4,624	19,919	45,873
	Niger	8,210	15,899	586,521
	Plateau	--	--	75,382
	FCT-Abuja	253	--	20,123
	Total	18,878	40,407	1,133,288
South–West	Ekiti	119	129	11,176
	Lagos	883	3,153	285,102
	Ogun	354	432	43,764
	Ondo	126	129	14,025
	Osun	973	2,634	264,014
	Oyo	874	2,076	189,236
	Total	3,329	8,553	807,317
South–East	Anambra	--	--	664
	Cross River	--	--	1,646
	Ebonyi	--	--	728
	Enugu	--	--	665
	Imo	--	--	235
	Total	--	--	3,938

Source: CRID, 2013

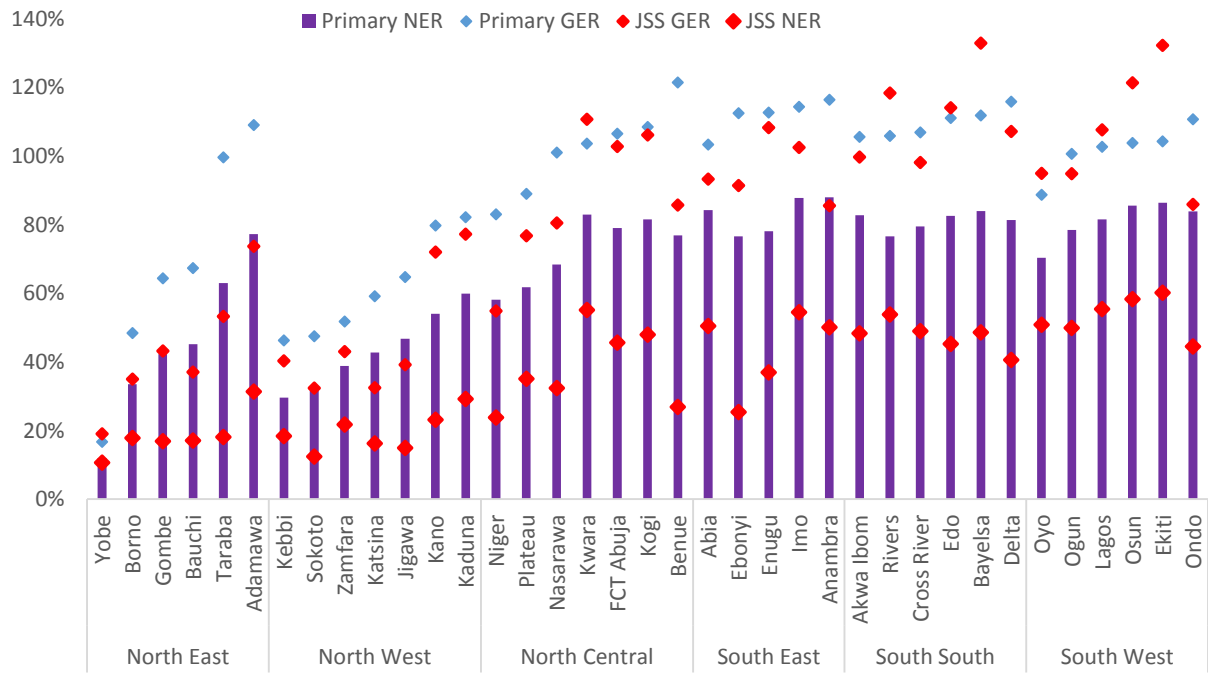
Figure A 13: Social demand for education



Source: NOI Polls, January 2015

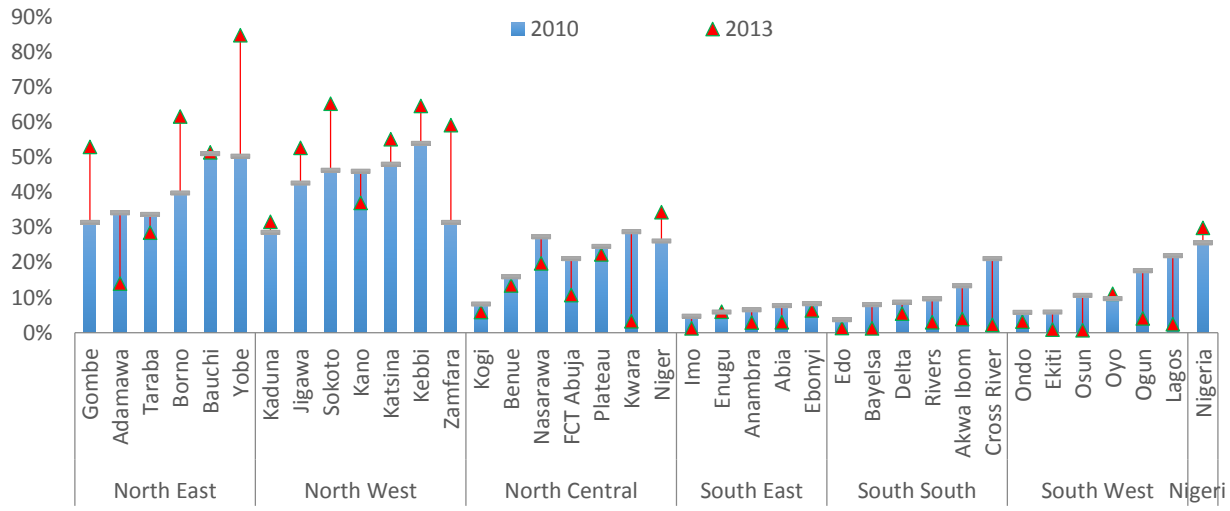
Annex B: Additional evidence for basic education equity

Figure B1: Primary GER and junior secondary GER and NER



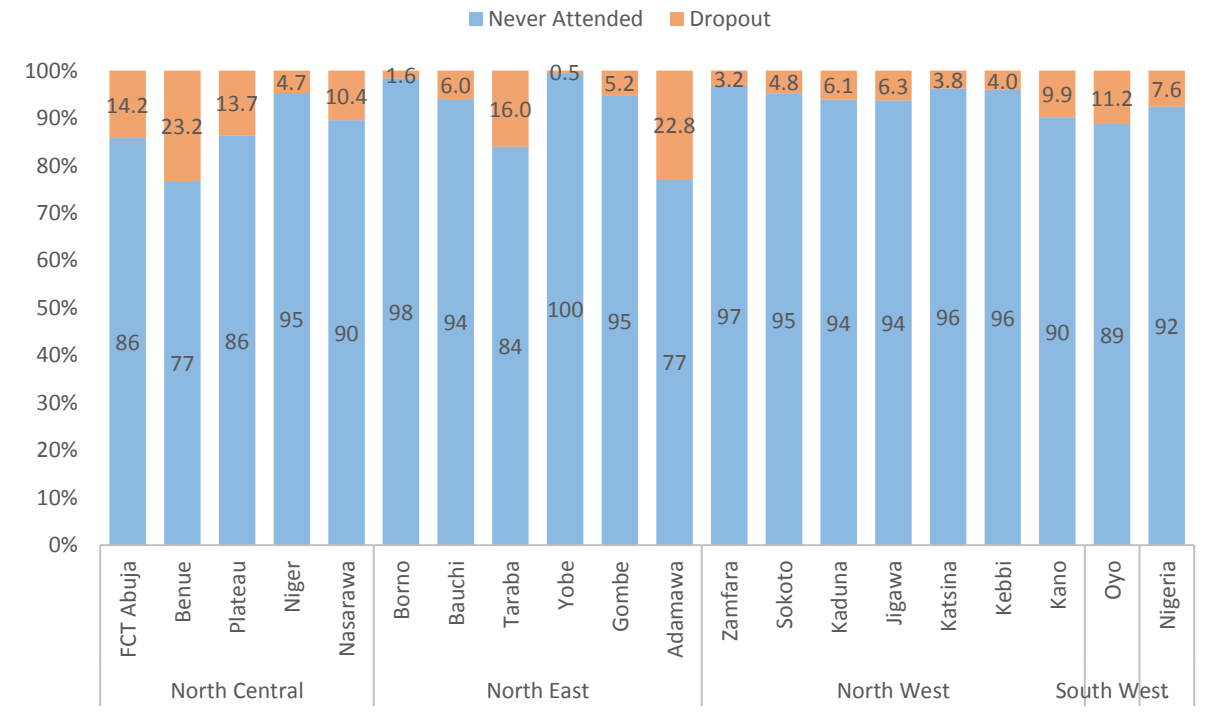
Source: Authors' calculation based on Demographic and Health Survey, 2013

Figure B2: Trends in out-of-school children age 6-14 by states



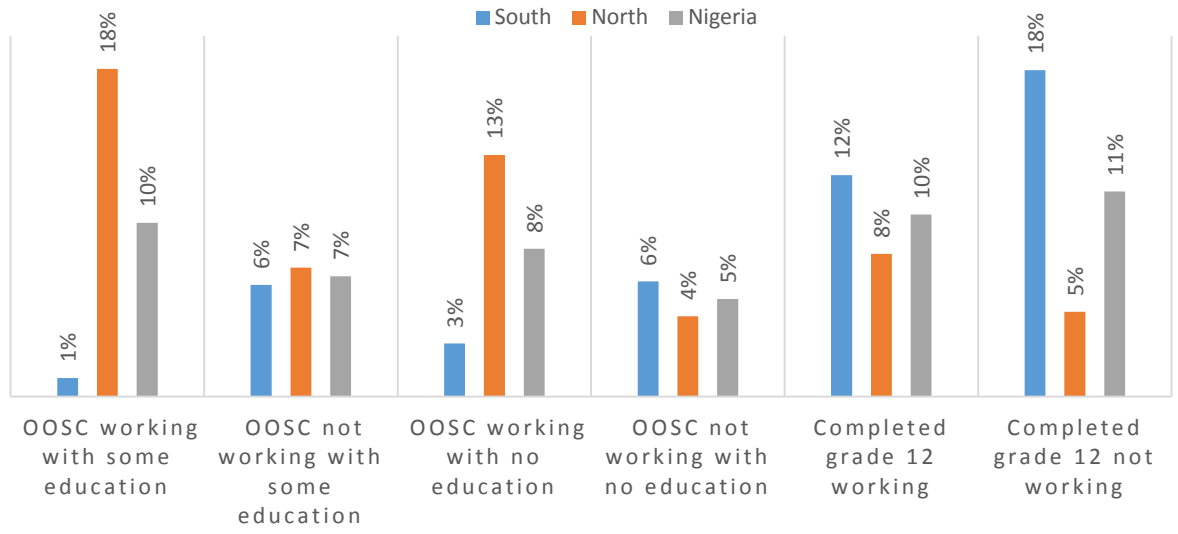
Source: Authors' estimate from General Household Survey Panel 2010/11 and Demographic and Health Survey, 2013

Figure B3: Topology of those in out-of-school situation for high out-of-school states, 2013



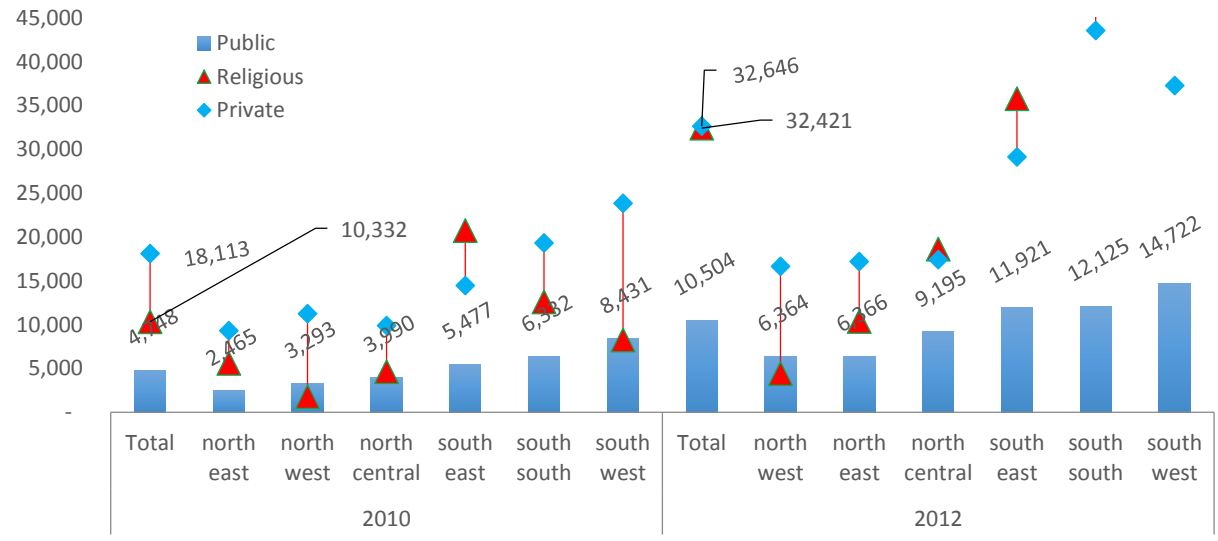
Source: Authors' estimate Demographic and Health Survey, 2013

Figure B4: Working out-of-school children (OOSC) age 15-24 (youth)in the north associated with less education than in the South



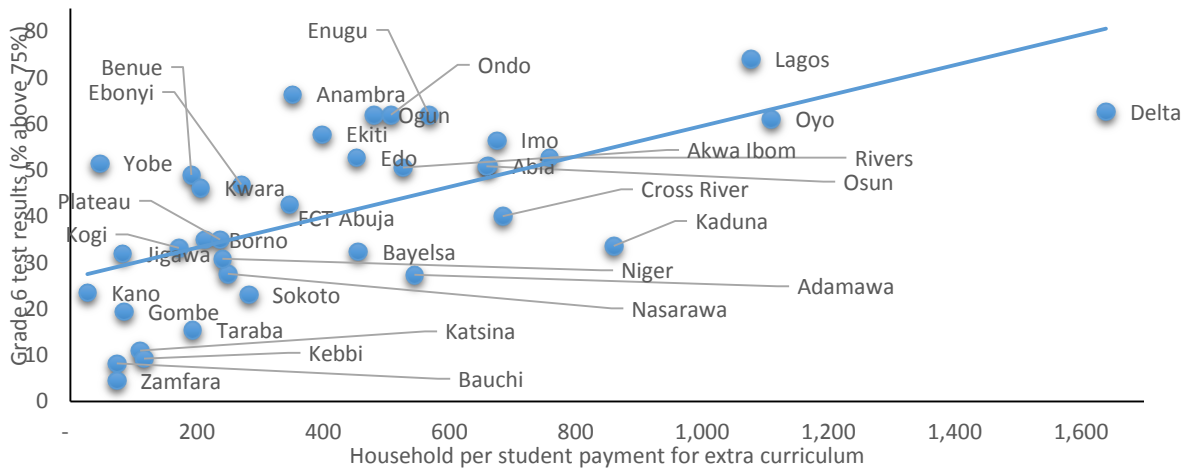
Source: Authors' calculation based on General Household Survey, 2012/13

Figure B5: Trends of household out-of-pocket per student spending (unit costs) by school type, 2010, 2012 (Naira)



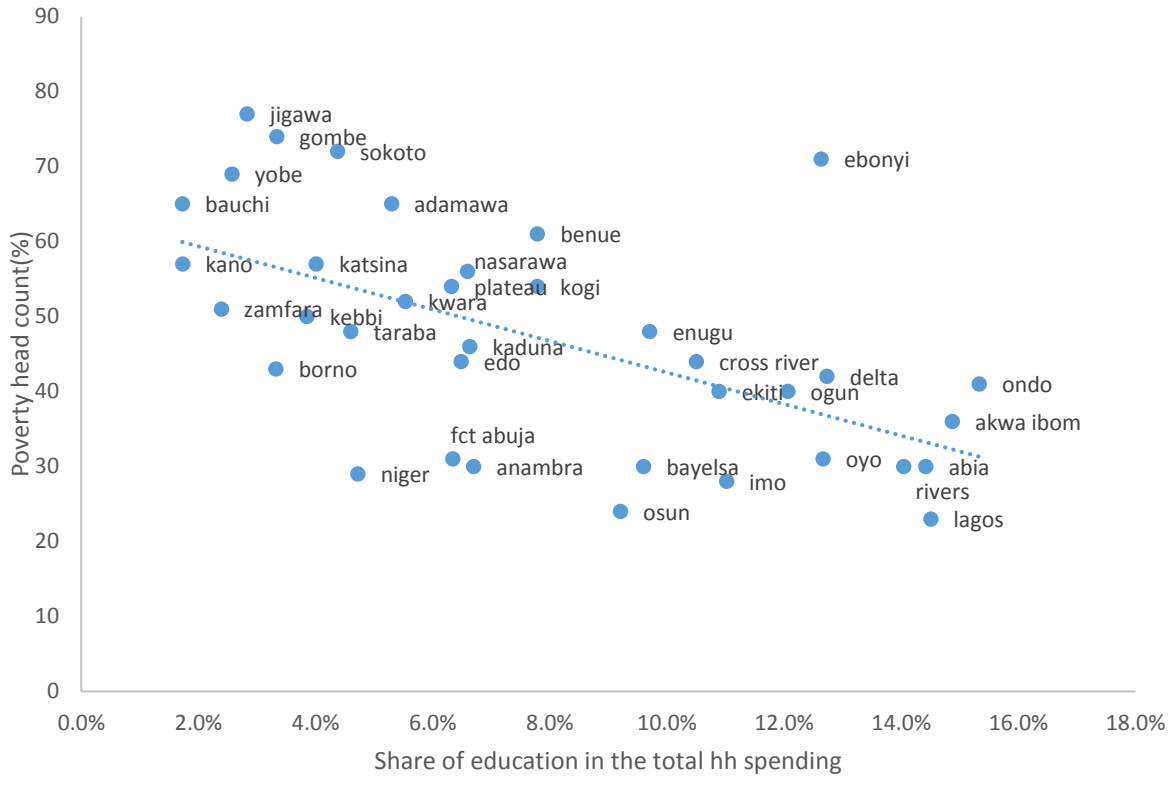
Source: Authors' estimate General Household Survey Panel 2010/11 and 2012/13

Figure B6: Household per student payment for extra curriculum(in Naira) and grade 6 test result



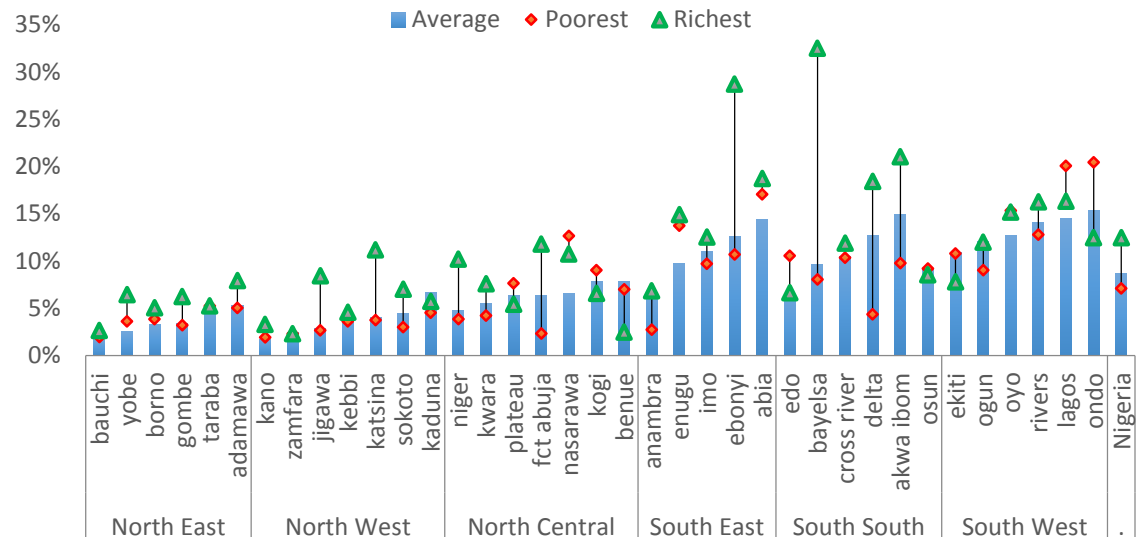
Source: Authors' estimate General Household Survey Panel 2010/11 and 2012/13

Figure B7: Share of household spending on education vs poverty head count rate (%)



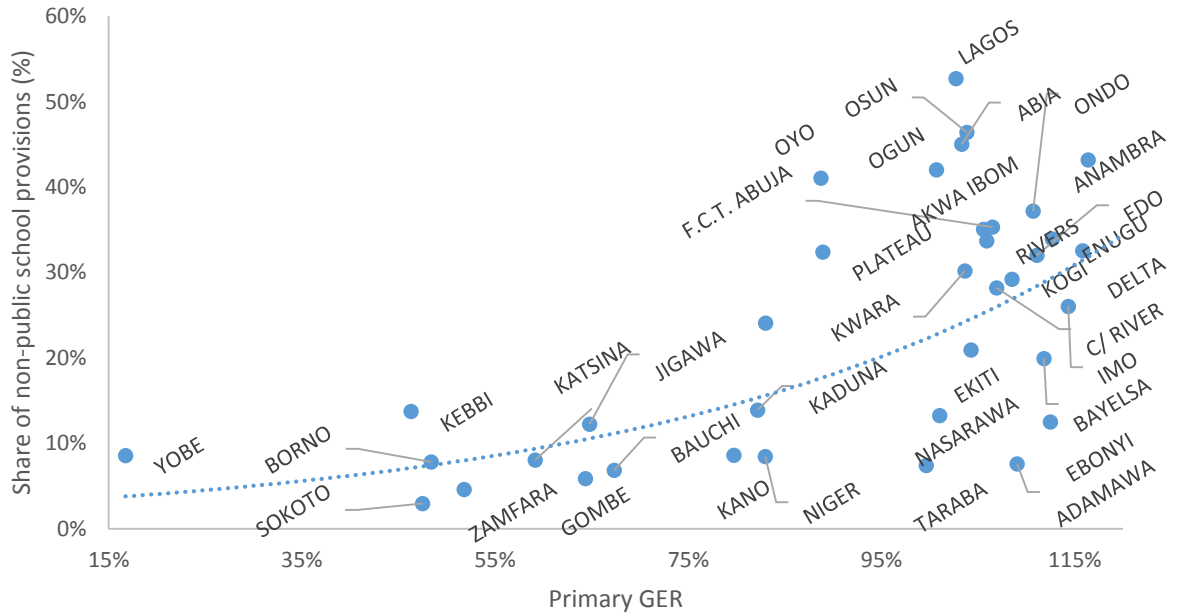
Source: Authors' calculation based on General Household Survey, 2010/11

Figure B8: Household share of education spending in total consumption by state for poorest and richest quintile and state average



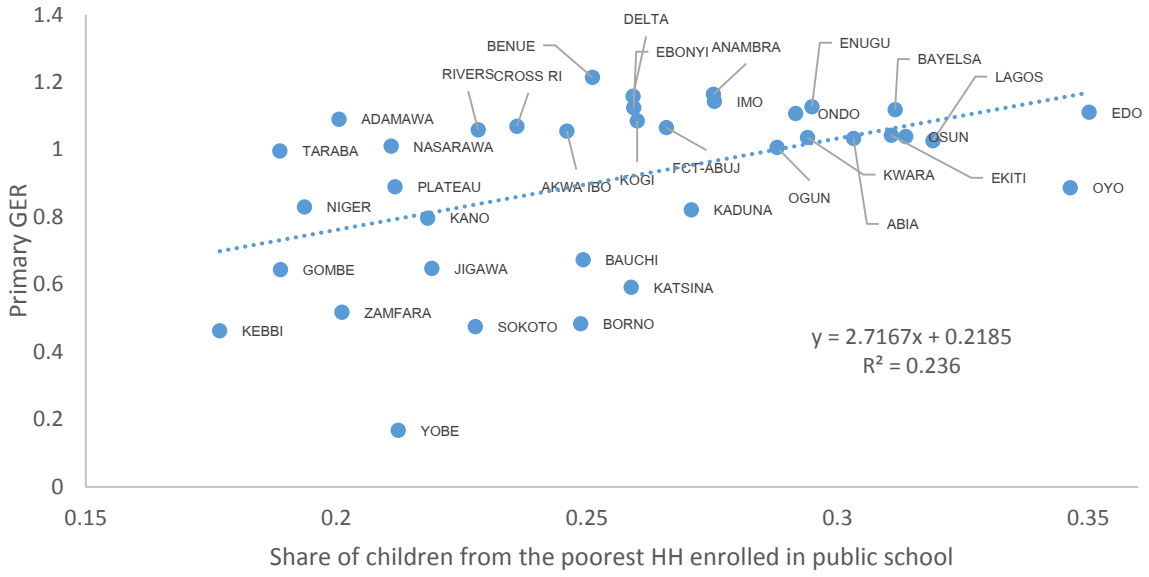
Source: Authors' estimate based on General Household Survey 2010/11

Figure B9: Correlates of share of non-public school provision and gross primary enrollment rates by state



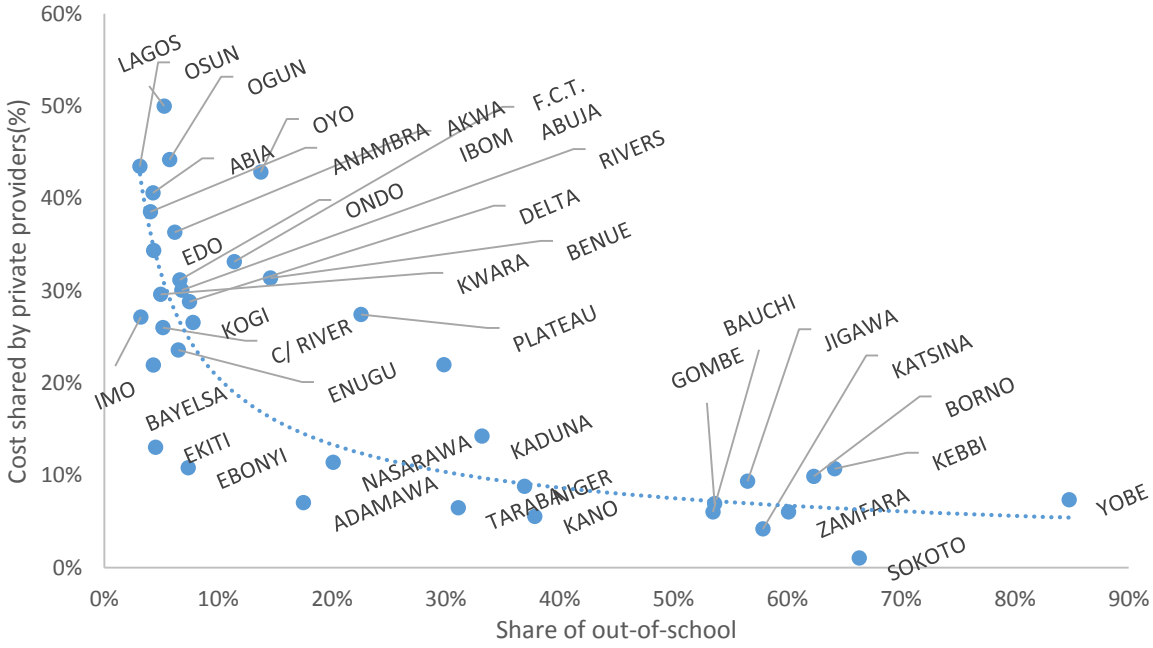
Source: Authors' estimate based on General Household Survey 2010/11

Figure B 10: States with high access rate. Public schools service the poor the most in states where access rate is high.



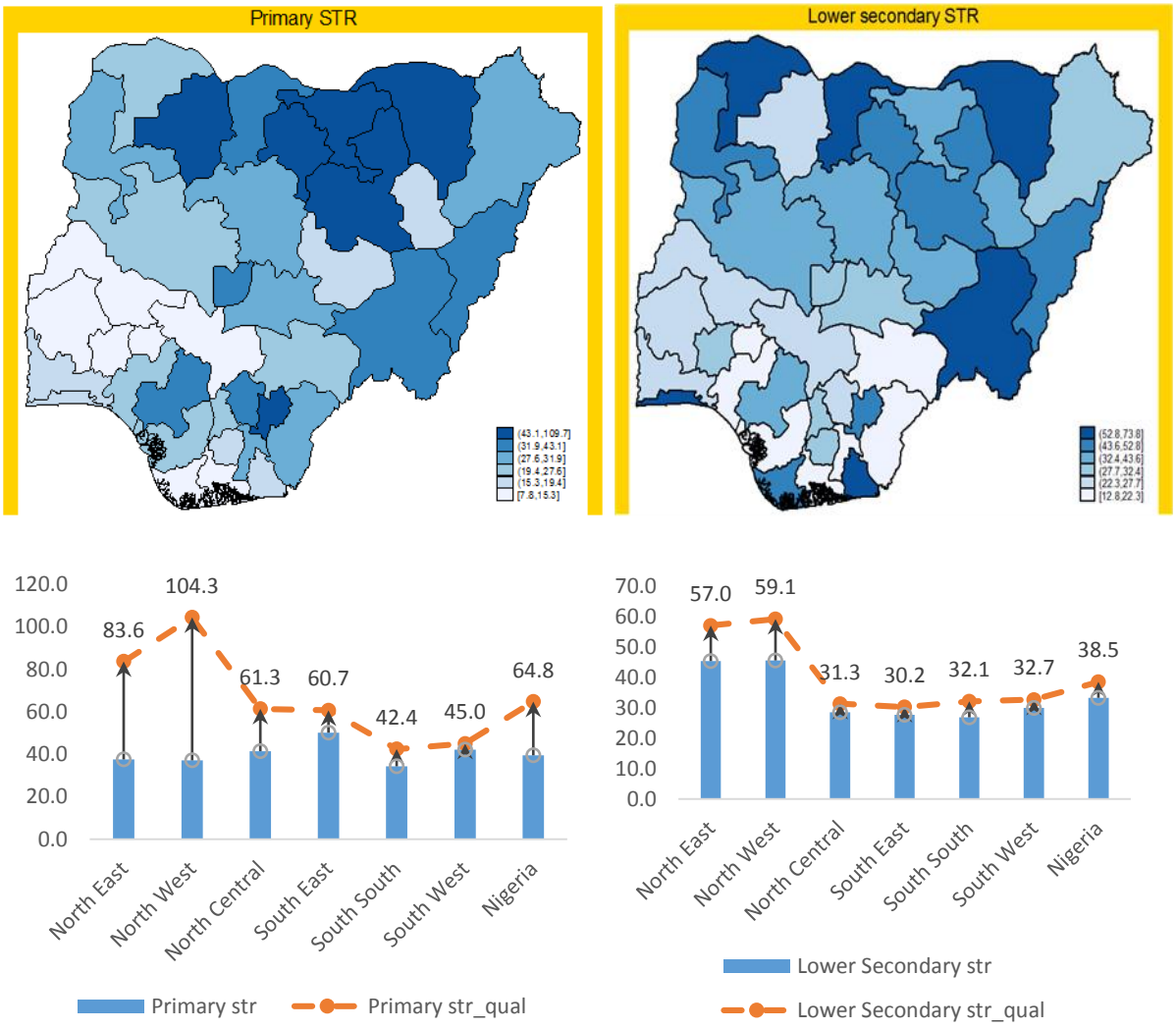
Source: Authors' estimate based on General Household Survey 2010/11

Figure B11: Share of private provide and out of-school



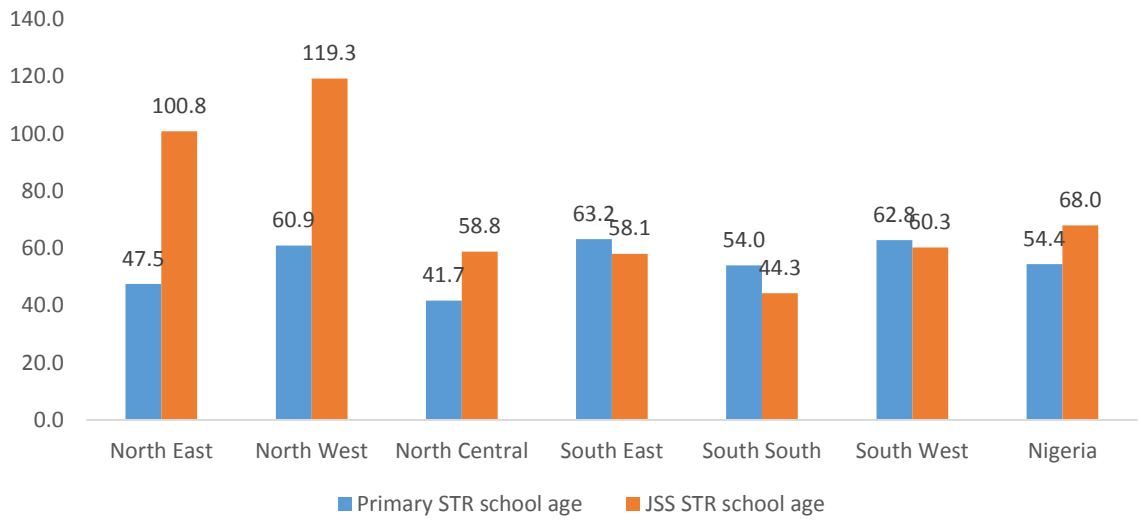
Source: Authors' estimate from, General Household Survey Panel 2010/11

Figure B12: Student teacher ratio, all teachers and qualified teachers only in primary (left) and junior secondary (right)



Source: Authors' estimate General Household Survey Panel 2010/11 and NEMIS, 2010-2012

Figure B13: Student teacher ratio using total school-age children (adequacy of teaching staff), by zone



Source: Authors' estimate from General Household Survey Panel 2010/11 and NEMIS, 2010-2012

Modeling of determinants of access and equity

19. Several econometric models are employed to investigate how demand and supply side factors affect the probability of being out-of-school. For the purpose of this analysis, we measured school participation indicators in two ways: (i), school participation status of basic education age group (age 6-14), which show the status of school attendance (in school vs out-of-school). In particular this allows us to investigate factors that matter for school attendance for those not in school or for those in school, (ii), NER at primary and junior secondary. This is particularly important to account for internal inefficiency related to overage children either due to delayed entry, repetition or school interruption, for example due to conflict.

20. The following are key supply side factors used in the analysis: (i), public spending on education at the state level measured in terms of per student spending (unit cost) which allows us to determine whether there is a shortage of public resources devoted to basic education at the state level, and (ii), state total revenue per official school-age child which is a proxy for the financial constrains facing the state in the provision of education. The first analysis is used to determine whether finance really matters in Nigeria. The following are demand side factors included in the model[89]: (i), household head education, gender, sex and sector of employment, (ii), household wealth status and family size, (iii) prevalence of conflicts, (iv) areas of residence, (v) child sex and age, and (vi) household spending per child.

21. The covariates are estimated at the national level and for the northern and southern states separately to determine heterogeneity of factors across the geographical zones. In addition, a decomposition model is employed to determine the relative importance of determinants between the

[89] Note that religion was deliberately excluded from the determinants as it is strongly correlated with the north and south geographic divide.

following four categories: (i), north and south, (ii) areas of residence, (iii) gender, and (iv), poorest and richest wealth quintile. The decomposition model aims to determine whether known factors (endowments or explained) justify the difference observed between say the north and the south or whether the differences are attributed to some other unknown factors (coefficients or unexplained). The detailed methodology of the analysis is presented. To determine the relative importance of school inputs and other factors, the endowment (known factors) are aggregated into 6 categories: (i), student (age and sex), (ii), school (number of classrooms, number of teachers, and number of schools), (iii) teachers (share of qualified teachers and teacher salary), (iv) finance (public spending on education, total state revenue and unit cost), (v) parent (education of head of household, wealth status, HH unit cost and areas of residence), and (iv) social and political factors (conflict, UBEC fund access on time). To determine the effect of all the three sources of funding (total public spending, state revenue and household spending) on school participation, we estimate them one at a time controlling for all other factors, and altering the three variables of interest. To determine the marginal effect of each variable of interest, the following models include all factors at once. The Tables below present a series of regression tables, and the results are summarized below.

22. The results show that the three financial indicators, total public spending, state revenue and household spending, are strong predicators of children's school participation, with state revenue and household spending having the largest effects on education outcomes of the three. Public per student spending is associated with a higher probability of school attendance- for every 1 percent increase in public spending, there is an increase in school attendance by 5.1 percent, holding all other factors constant at mean (marginal effect) (Table B 2). The corresponding increase in probability of attendance with an increase in state revenue per school-age child and household spending per student is 13.6 percent and 12.2 percent respectively. Under the same specifications, similar results were observed, for net primary enrollment rate (Table B 3) and junior secondary NER (Table B 4). This implies that financial resources in Nigeria are a key determinant of education outcomes, particularly revenues of the state and household spending. This means that states with higher revenues tend to spend more on service delivery and allocate more per child (higher unit cost), which in turn implies that children have access to better schools and better learning environments. The result from the combined model, shows that all three financial factors are strongly associated with children's school participation but the marginal effect is relatively lower due to potential substitution effect. For example, states with a lower federal allocation may supplement from state revenue or schools may charge more fees to households (Table B 5).

23. From demand side factors, while household head education is the most predominant determinant of schooling, all other factors such as household head sector of activity, wealth status, areas of resident, head age, household size and children age and gender also play crucial roles in the schooling decision. For example, a child whose parent had some primary education has an 11.9 percent greater chance of attending school than a child whose parent had no education, and the probability increases to 18.4 percent, 20.6 percent and 23.1 percent for a child whose household head has completed primary, some junior secondary, and has upper secondary or above, respectively, compared with a child whose parent had no education. Similarly, the probability of going to school decreases by 6 percent for children from households engaged in agriculture.

24. Analyzing the model separately between the northern and southern parts of the country, shows that all supply and demand side factors listed above have a strong influence in the north while only household spending and education of household head seems to matter in the south. The results are presented in (Table B 6) for the north and (Table B 7) for the south. The tables suggest that both demand and supply side factors are key determinants of schooling in the north while household head education and household per student payment are the main factor in the south from the demand side. This is also consistent with the earlier findings that parents in the south invest more in their children's education, and the public unit costs are higher in most of the southern states mainly due to high participation of private sector in services delivery. It is also self-evident that the north is more affected by the internal conflict compared to the south but this effect is excluded because of high correlation with educational outcome. If the youth continue with current schooling trends, this may affect the next generation and any policy action should also consider alternative education structures.

25. Finally, the decomposition results under the four categories (north vs. south, urban vs. rural, male vs. female and poorest vs. richest) show that the endowment (or explained factors), plays a significant role in explaining the difference across the four categories. Table B 8 shows decomposition results. Except for the difference between genders, endowment accounts for more than 60 percent of gaps between the other three categories. For example, 67 percent of the difference between north and south in terms of school participation is explained by the known factors (factors related to students, teachers, schools, finances, parents and other social factors). The breakdown of the group of explanatory variables for north and south shows that parents are the most important, followed by social factors, and finance. Overall, parent, social factors and finances explain the vast major of the differences between the four categories while student level factors, school and teachers are only significant for some. In particular, student sex and age are only significant in explaining the gap between north and south and rural and urban differences, but not between poorest and richest quintiles. Similarly, teachers' salary and qualifications only explains the difference between north and south while school level information (number of school and classrooms) is significant in explaining the difference between rural and urban. Therefore, demand side factors such as parents, finances and social factors have been consistently found to be the dominant factors for schooling decisions.

Table B 1: Rate of returns to education and key education attainment indicators by state

		Returns to education		Key educational attainment indicators			
Zone	State	Coefficient	Significance level	Average years of schooling	Labor Force with no education (%)	LF with some upper secondary plus	% agric employment
	Borno	-0.033	-0.83	3.7	63.4	18.7	65.2
	Gombe	0.05	-0.86	4.4	52.2	19.0	60.6
	Yobe	0	0	2.7	74.1	13.8	63.5
	Adamawa	0.08	(2.05)**	5.3	44.7	21.7	81.7
North	Taraba	0.087	(2.76)***	5.7	43.3	25.7	77.2
East	Bauchi	0.069	(3.02)***	3.3	60.3	11.9	44.5
	Jigawa	0.02	(0.4)	2.9	67.5	11.7	53.38
	Kano	0.018	(0.5)	2.5	69.9	8.6	47.96
	Kebbi	0.092	(3.03)***	3.2	67.6	14.2	54.2
	Sokoto	0.154	(5.27)***	2.3	76.4	10.7	67.1
	Kaduna	0.16	(5.36)***	5.8	39.2	24.1	43.7
North	Katsina	0.136	(5.55)***	2.9	69.5	11.6	53.9
West	Zamfara	-0.035	(1.0)	1.9	79.7	7.3	62.53
	Benue	0.011	(0.5)	6.4	31.5	27.2	86.03
	Kogi	0.074	(4.43)***	7.6	25.2	35.7	38.1
	Kwara	0.026	(1.6)	6.7	38.5	36.2	30.12
	Nasarawa	0.031	(1.2)	6.2	36.2	26.5	70.84
	Niger	0.117	(6.17)***	5.8	46.8	29.9	46.2
North	Plateau	0.139	(4.26)***	7.0	27.0	31.6	57.6
Central	FCT Abuja	0.038	(1.6)	8.6	22.9	48.2	36.53
	Abia	0.068	(2.57)**	10.1	5.7	54.5	42.8
	Anambra	0.043	(1.98)**	8.8	6.5	38.4	42.5
	Ebonyi	0.043	(3.48)***	7.3	18.3	26.8	84.0
South	Enugu	0.049	(1.96)*	8.0	15.5	31.8	56.6
East	Imo	0.054	(3.21)***	9.5	6.3	49.1	56.7
	Akwa Ibom	0.076	(3.85)***	9.2	5.0	42.9	46.2
	Bayelsa	0.066	(4.61)***	9.3	9.7	47.7	50.9
	Cross River	0.175	(4.43)***	8.8	7.3	36.4	66.4
	Delta	0.036	(1.3)	9.5	8.8	48.9	44.48
South	Edo	0.065	(3.80)***	8.5	9.9	36.6	36.5
South	Rivers	0.061	(3.77)***	10.4	7.5	61.0	34.3
	Ekiti	0.091	(3.01)***	9.7	10.5	50.0	27.2
	Lagos	0.056	(3.15)***	11.1	4.0	70.4	2.1
	Ogun	0.034	(1.77)*	9.2	10.2	46.2	13.0
	Ondo	0.049	(3.30)***	8.7	14.7	41.1	50.9
South	Osun	0.062	(3.92)***	9.5	11.3	51.8	12.8
West	Oyo	0.053	(3.35)***	8.3	22.0	42.9	31.0
Nigeria		0.075	(16.90)***	6.9	31.4	34.3	47.0

Source: Authors' computation using General Household Survey 2010/11 Note: * Significant at 5%, ** Significant at 10% and *** Significant at 1%. Estimation was based on control for age, experience and sector of employment

Table B 2: Determinants of school participation (in school=1 and out-of-school=0)

Education finance			
State per student revenue	0.136 (17.46)***		
Public unit cost		0.051 (9.44)***	
Household unit cost			0.122 (21.31)***
Wealth Quintiles			
Poor	0.026 (2.87)***	0.030 (3.26)***	0.031 (2.85)***
Middle	0.043 (3.67)***	0.052 (4.32)***	0.047 (3.28)***
Rich	0.048 (3.21)***	0.062 (4.13)***	0.051 (2.85)***
Richest	0.065 (3.29)***	0.086 (4.42)***	0.064 (2.61)***
Household head			
Agriculture as main occupation	-0.046 (6.26)***	-0.043 (5.85)***	-0.042 (4.72)***
Incomplete primary	0.158 (11.12)***	0.182 (13.15)***	0.149 (8.25)***
Complete primary	0.214 (28.18)***	0.233 (30.60)***	0.202 (21.35)***
Complete junior secondary	0.234 (17.28)***	0.251 (18.67)***	0.217 (12.37)***
Complete upper secondary and above	0.253 (30.46)***	0.274 (33.43)***	0.254 (25.21)***
Female	0.161 (10.69)***	0.197 (13.15)***	0.149 (7.97)***
Age	0.002 (8.32)***	0.002 (8.51)***	0.002 (6.16)***
Other control variables			
Household size	0.000 (0.02)	0.001(0.45)	0.002 (1.06)
Rural area	-0.064 (8.68)***	-0.061 (8.17)***	-0.055 (5.90)***
Number of observations	23,430	23,430	16,623

Source: Authors' computation using General Household Survey 2010/11 Note: * Significant at 5%, ** Significant at 10% and *** Significant at 1%. Estimation was based on control for age, experience and sector of employment

Table B 3: Determinants of primary net enrollment status (in school at primary school-age =1 otherwise =0)

Education finance			
State per student revenue	0.095 (10.25)***		
Public unit cost		0.024 (3.28)***	
Household unit cost			0.090 (14.25)***
Students' characteristics			
Female	-2.829e-02 (3.36)***	-2.978e-02 (3.53)***	-2.586e-02 (3.08)***
Age in years squared	0.023(10.68)***	0.023 (10.74)***	0.022 (10.43)***
Wealth Quintiles			
Poor	0.028 (2.15)**	0.031 (2.32)**	0.028 (2.16)**
Middle	0.051 (2.97)***	0.057 (3.31)***	0.049 (2.87)***
Rich	0.064 (2.94)***	0.075 (3.46)***	0.057 (2.63)***
Richest	0.084 (2.99)***	0.100 (3.55)***	0.068 (2.40)**
Household head			
Agriculture as main occupation	-0.038 (3.84)***	-0.037 (3.73)***	-0.035 (3.58)***
Incomplete primary	0.190 (9.47)***	0.208 (10.49)***	0.168 (8.26)***
Complete primary	0.280 (26.35)***	0.294 (28.14)***	0.259 (23.69)***
Complete junior secondary	0.288 (14.01)***	0.302 (14.78)***	0.266 (12.56)***
Complete upper secondary and above	0.277 (21.47)***	0.297 (23.49)***	0.266 (20.53)***
Female	0.183 (9.67)***	0.209 (11.15)***	0.170 (9.03)***
Age	0.002 (6.78)***	0.002 (6.93)***	0.002 (5.51)***
Other control variables			
Household size	0.006 (2.72)***	0.006 (2.80)***	0.007 (3.15)***
Rural area	-0.041 (4.00)***	-0.036 (3.55)***	-0.025 (2.41)**
Number of observations	16,623	16,623	16,623

Source: Authors' computation using General Household Survey 2010/11 Note: * Significant at 5%, ** Significant at 10% and *** Significant at 1%. Estimation was based on control for age, experience and sector of employment

Table B 4:Determinants of junior secondary net enrollment status (in school at lower sec. school-age =1 otherwise =0)			
Education finance			
State per student revenue	0.104 (8.21)***		
Public unit cost		0.037 (3.36)***	
Household unit cost			0.101 (9.87)***
Students characteristics			
Female	-9.724e-03 (0.75)	-1.182e-02 (0.91)	-1.104e-02 (0.86)
Age in years squared	0.060 (9.34)***	0.061 (9.50)***	0.059 (9.24)***
Wealth Quintiles			
Poor	-0.006 (0.30)	-0.002 (0.08)	-0.007 (0.33)
Middle	0.013 (0.48)	0.024 (0.89)	0.015 (0.55)
Rich	0.038 (1.09)	0.050 (1.45)	0.033 (0.98)
Richest	0.074 (1.61)	0.089 (1.93)*	0.069 (1.51)
Household head			
Agriculture as main occupation	-0.055 (3.63)***	-0.051 (3.33)***	-0.054 (3.54)***
Incomplete primary	0.116 (4.09)***	0.127 (4.45)***	0.095 (3.38)***
Complete primary	0.173 (10.24)***	0.188 (11.23)***	0.150(8.76)***
Complete junior secondary	0.183 (4.76)***	0.197 (5.10)***	0.159 (4.15)***
Complete upper secondary and above	0.180 (8.73)***	0.201 (9.82)***	0.170 (8.27)***
Female	0.067 (2.78)***	0.094 (3.94)***	0.069 (2.92)***
Age	0.001 (1.61)	0.001 (1.76)*	0.001 (1.00)
Other control variables			
Household size	-0.002 (0.63)	-0.002 (0.54)	-0.001 (0.25)
Rural area	-0.092 (6.00)***	-0.084 (5.49)***	-0.077 (5.11)***
Number of observations	6,807	6,807	6,807

Source: Authors' computation using General Household Survey 2010/11 Note: * Significant at 5%, ** Significant at 10% and *** Significant at 1%. Estimation was based on control for age, experience and sector of employment

Table B 5: Determinants of school participation (Marginal effect of all financial indicators)			
	In/out of school	Primary net attendance	JSS net attendance
Education finance			
State per student revenue	0.062 (7.28)***	0.042 (4.06)***	0.061 (4.37)***
Public unit cost	0.039 (7.29)***	0.011 (1.52)	0.025 (2.29)**
Household unit cost	0.095 (17.74)***	0.074 (10.26)***	0.077 (6.77)***
Students' characteristics			
Female	-0.029 (4.78)***	-0.025 (3.02)***	-0.009 (0.67)
Age in years squared	0.014 (13.61)***	0.022 (10.43)***	0.059 (9.19)***
Wealth Quintiles			
Poor	0.023 (2.60)***	0.027 (2.11)**	-0.008 (0.41)
Middle	0.035 (3.04)***	0.047(2.75)***	0.010 (0.36)
Rich	0.032 (2.18)**	0.053 (2.47)**	0.028 (0.81)
Richest	0.037 (1.80)*	0.064 (2.28)**	0.060 (1.32)
Household head			
Agriculture as main occupation	-0.045 (6.11)***	-0.036 (3.70)***	-0.056 (3.70)***
Incomplete primary	0.119 (7.98)***	0.164 (8.03)***	0.090 (3.20)***
Complete primary	0.184 (23.72)***	0.257 (23.48)***	0.145 (8.42)***
Complete junior secondary	0.206 (14.43)***	0.264 (12.46)***	0.157 (4.12)***
Complete upper secondary and above	0.232 (28.17)***	0.261 (20.06)***	0.161 (7.77)***
Female	0.126 (8.44)***	0.163 (8.61)***	0.055 (2.31)**
Age	0.002 (6.33)***	0.002 (5.53)***	0.001(0.98)
Other control variables			
Household size	0.001 (0.42)	0.007 (3.09)***	-0.001 (0.29)
Rural area	-0.055 (7.24)***	-0.028 (2.77)***	-0.084 (5.55)***
Number of observations	23,430	16,623	6,807

Source: Authors' computation using General Household Survey 2010/11 Note: * Significant at 5%, ** Significant at 10% and *** Significant at 1%. Estimation was based on control for age, experience and sector of employment

Table B 6: North: Determinants of school participation (Marginal effect of all financial indicators)

	In/out of school	Primary net attendance	JSS net attendance
Education finance			
State per student revenue	0.067 (4.98)***	0.068 (4.19)***	0.053 (2.51)**
Public unit cost	0.055 (6.94)***	0.010 (0.97)	0.028 (1.90)*
HH unit cost	6.509e-02 (6.91)***	4.729e-02 (4.08)***	4.517e-02 (3.01)***
Students' characteristics			
Female	-0.043 (4.95)***	-0.035 (3.28)***	-0.021 (1.40)
Age in years squared	0.021 (14.12)***	0.030 (11.30)***	0.057 (7.46)***
Wealth Quintiles			
Poor	0.031 (2.54)**	0.034 (2.21)**	-0.003 (0.13)
Middle	0.035 (2.17)**	0.046 (2.21)**	-0.004 (0.12)
Rich	0.043 (2.04)**	0.064 (2.39)**	0.025 (0.63)
Richest	0.056 (1.86)*	0.109 (2.96)***	0.098 (1.70)*
Household head			
Agriculture as main occupation	-0.071 (6.50)***	-0.060 (4.52)***	-0.076 (3.82)***
Incomplete primary	0.106 (3.94)***	0.175 (5.29)***	0.056 (1.16)
Complete primary	0.211 (19.29)***	0.280 (20.12)***	0.095 (4.20)***
Complete junior secondary	0.249 (11.63)***	0.277 (9.31)***	0.120 (2.37)**
Complete upper secondary and above	0.286 (25.85)***	0.311 (19.59)***	0.172 (6.54)***
Female	0.151 (5.03)***	0.190 (5.54)***	0.096 (2.62)***
Age	0.001 (2.80)***	0.001 (3.16)***	0.000 (0.70)
Other control variables			
Household size	0.003 (1.27)	0.011(3.88)***	0.002 (0.55)
Rural area	-0.090 (8.03)***	-0.055 (3.95)***	-0.083 (4.16)***
Number of observations	15,055	11,025	4,030

Source: Authors' computation using General Household Survey 2010/11 Note: * Significant at 5%, ** Significant at 10% and *** Significant at 1%. Estimation was based on control for age, experience and sector of employment

Table B 7: South: Determinants of school participation (Marginal effect of all financial indicators)

	In/out of school	Primary net attendance	JSS net attendance
Education finance			
State per student revenue	-0.004 (0.63)	-0.014 (1.19)	0.034 (1.55)
Public unit cost	-0.001 (0.29)	0.006 (0.66)	0.010 (0.56)
Household unit cost	-0.0143 (2.14)**	-0.034 (2.34)**	0.0458 (1.88)*
Students characteristics			
Female	0.007 (1.23)	0.015(1.14)	0.020(0.88)
Age in years squared	0.001 (1.33)	0.008 (2.38)**	0.055 (5.05)***
Wealth Quintiles			
Poor	0.000 (0.05)	-0.023 (1.11)	-0.038 (0.97)
Middle	0.015 (1.26)	-0.015 (0.57)	-0.016 (0.32)
Rich	-0.006 (0.36)	-0.039 (1.16)	-0.014 (0.22)
Richest	-0.013 (0.59)	-0.069 (1.51)	-0.012 (0.15)
Household head			
Agriculture as main occupation	-0.004 (0.57)	-0.009 (0.71)	-0.025 (1.04)
Incomplete primary	-0.005 (0.30)	-0.032 (1.17)	0.015 (0.37)
Complete primary	0.043 (3.92)***	0.069 (3.50)***	0.098 (3.18)***
Complete junior secondary	0.059 (3.87)***	0.096 (3.24)***	0.137 (2.27)**
Complete upper secondary and above	0.073 (6.26)***	0.071 (3.08)***	0.087 (2.31)**
Female	0.002 (0.18)	0.001 (0.05)	-0.035 (0.87)
Age	0.000 (0.59)	0.000 (0.32)	-0.002 (1.78)*
Other control variables			
Household size	-0.002 (0.99)	-0.007 (1.62)	-0.005 (0.67)
Rural	-0.004 (0.67)	-0.009 (0.62)	-0.077 (3.17)***
Number of observations	8,375	5,598	2,777

Source: Authors' computation using General Household Survey 2010/11 Note: * Significant at 5%, ** Significant at 10% and *** Significant at 1%. Estimation was based on control for age, experience and sector of employment

Table B 8: Decompositions: Determinants of differences between southern and northern states, urban and rural, male and female, richest and poorest in access to schooling (Group 1 VS Group 2, respectively)

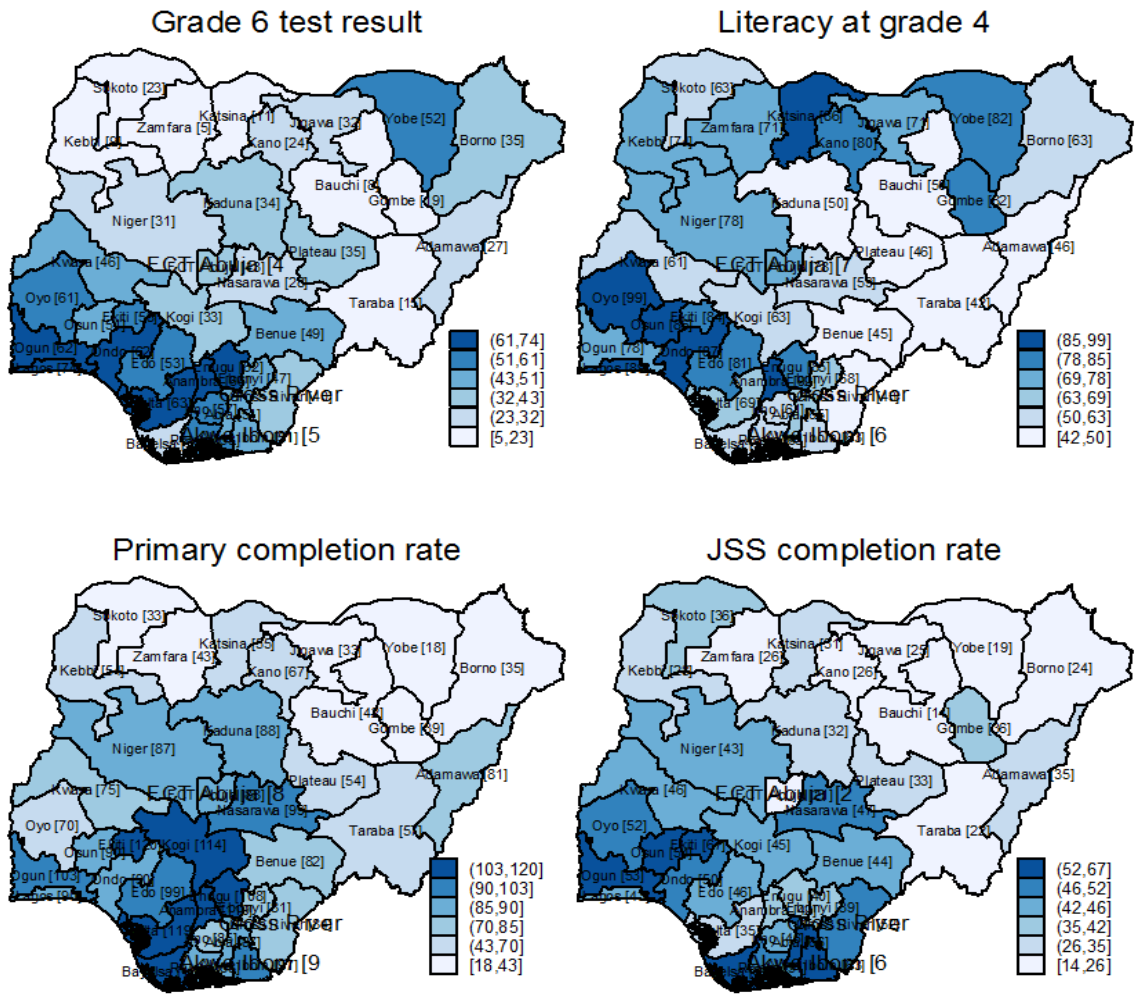
	Details	North VS South	Rural VS Urban	Male VS Female	Richest VS Poorest
	Group 1	0.891 (177.43)***	0.846 (120.58)***	0.757 (148.13)***	0.856 (66.03)***
	Group 2	0.636 (124.27)***	0.699 (159.79)***	0.730 (128.51)***	0.612 (49.71)***
Overall	Difference	0.255 (35.56)***	0.147 (17.79)***	0.028 (3.63)***	0.244 (13.65)***
	Explained	0.171 (7.82)***	0.101 (18.34)***	-0.008 (2.73)***	0.154 (7.58)***
	Unexplained	0.084 (3.91)***	0.046 (5.48)***	0.036 (5.16)***	0.090 (3.64)***
	Student	-0.003 (2.64)***	-0.002 (2.65)***	-0.000 (1.51)	-0.003 (1.57)
	School	0.001 (0.18)	0.002 (2.74)***	-0.000 (0.04)	-0.012 (1.64)
	Teacher	0.012 (2.44)**	0.002 (1.73)*	0.001 (1.13)	0.003 (0.93)
Explained	Finance	-0.020 (2.05)**	-0.009 (2.64)***	0.000 (0.00)	-0.008 (0.57)
	Parent	0.137 (8.65)***	0.076 (11.29)***	-0.007 (2.64)***	0.138 (5.96)***
	Social	0.044 (3.85)***	0.031 (8.41)***	-0.002 (2.16)**	0.035 (3.00)***
	Student	-0.257 (9.97)***	-0.192 (6.32)***	0.067 (2.68)***	-0.293 (4.55)***
	School	0.145 (3.25)***	-0.095 (3.50)***	0.038 (1.60)	-0.259 (3.93)***
Unexplained	Teacher	2.456 (1.94)*	-0.961 (2.82)***	-0.165 (0.56)	0.743 (0.97)
	Finance	-2.217 (1.65)*	0.649 (1.28)	0.485 (1.37)	-1.787 (1.49)
	Parent	-0.204 (1.43)	-0.206 (6.32)***	-0.078 (3.16)***	-0.189 (2.29)**
	Social	-0.542 (2.68)***	0.320 (2.39)**	0.070 (0.62)	0.251 (0.70)
	Constant	0.704 (1.11)	0.530 (1.13)	-0.380 (1.07)	1.624 (1.47)
N		32,414	32,414	32,414	32,414

Source: Authors' computation using General Household Survey 2010/11 Note: * Significant at 5%, ** Significant at 10% and *** Significant at 1%. Estimation was based on control for age, experience and sector of employment

Annex C. Additional evidence for basic education quality

Key indicators of quality

Figure C 1: Geographical distribution of key basic education quality indicators by state



Source: Authors' estimate from General Household Survey Panel 2010/11and Demographic and Health Survey 2013

Modeling of determinants of quality

26. Similar to the equity case, several econometric models are employed to investigate how demand and supply side factors affect the key learning outcome indicators described above. While the models and factors used in this section are the same as in the equity case (except in the decomposition model), for the learning outcomes assessment public financial inputs are measured in two ways: (i), direct financial input, which consists of availability of public resources per student and financial wellbeing of the states (this is the same as the "how finance" factor used in the equity section), and (ii) quality of

resources used, measured by the student teacher ratio, class size, average salary of teachers and share of qualified teachers (this is the only difference from the out-of-school factors). As stated above, we used five indicators as proxies for quality of educational: grade 6 test score, literacy rate after completion of grades 4 and 6, primary completion rate, and junior secondary completion rate. Model justification, steps of analyses and methodological setups are also same as for the out-of-school section, except how the finance and outcome indicators are measured. In other words, to determine the effect of finance (total public spending, state revenue, STR, share of qualified teachers, class size, and household spending) on learning outcomes, we estimated one at a time, controlling for all other factors. To determine the marginal effect of each variable of interest, we estimated models that include all factors for grade 6 test results and onetime completion of junior secondary school at the national level and for the north and south separately. A series of regression tables and the results are summarized below.

27. The results show that financial indicators are key determinants of learning outcomes (Table C 1). The effect of direct financial input (public unit cost, state revenue per school-age child, household unit cost, and teachers' salary) and indirect financial input (STR, class size and share of qualified teachers), affects all the key learning indicators. For example, a 1 percent increase in public spending per student is associated with a 3 percent increase in grade 6 test results. The corresponding effect of a 1 percent increase in state revenue per official school-age child, household unit cost or primary school teachers' salary is associated with an increase in grade 6 test results of 3 percent, 19 percent and 2.5 percent, respectively. Similarly, a unit decrease in STR and class size and a unit increase in the share of qualified teachers is associated with an increase by 16 percent, 17.5 percent and 18.5 percent, respectively in grade six test results.

28. Overall, learning outcomes are more sensitive to supply side factors than demand side factors like gender, area of residence, and wealth status of the household, among others. The results for the other learning outcome indicators show similar findings and are presented in the Tables (primary completion rate—Table C 2, literacy rate at grade 4—Table C 3, literacy rate at grade 6—Table C 4, and junior secondary completion rate on time—Table C 5). However, when all factors are combined in the jointly estimated model, the marginal effect of STR, class size, and share of qualified teachers among all teachers remains significant while the effects of public unit cost and state revenue are still significant but smaller in magnitude (Table C 6). This implies that although direct financial input matters for learning outcomes, the effect is more significant when the financial input leads to improvement in the learning environment such as class size, STR and qualified teachers. Similar to the access case, the household head education plays a significant role both in the north and south while other factors such as wealth status are only significant in the north.

Table C 1: Determinants of learning outcome , direct financial input – grade 6 test results

Education Finance							
State per student revenue	11.824 (30.15)***						
Public unit cost		3.165 (9.41)***					
Household unit cost			19.205 (83.01)***				
Salary primary				2.546 (4.61)***			
Education supply							
STR					-0.160 (15.45)***		
Class size						-0.175 (17.92)***	
Qualified teachers							0.185 (23.23)***
Household head							
Agriculture as main occupation	0.008 (0.02)	0.509 (1.11)	0.749 (2.19)**	0.564 (1.23)	0.321 (0.71)	0.491 (1.09)	0.810 (1.81)*
Incomplete primary	11.967 (14.92)***	13.675 (16.32)***	5.760 (9.12)***	13.855 (16.46)***	13.810 (16.65)***	12.716 (15.34)***	12.553 (15.35)***
Complete primary	11.895 (24.66)***	13.671 (27.27)***	5.338 (13.80)***	13.745 (27.16)***	13.689 (27.61)***	13.002 (26.19)***	13.049 (26.70)***
Complete junior secondary	12.141 (11.62)***	13.561 (12.41)***	6.187 (7.55)***	13.608 (12.39)***	12.997 (11.98)***	12.314 (11.39)***	12.829 (12.04)***
Complete upper secondary and above	7.006 (12.20)***	9.357 (15.72)***	3.017 (6.70)***	9.419 (15.69)***	9.101 (15.42)***	9.039 (15.39)***	9.330 (16.11)***
Female	7.782 (11.04)***	10.778 (14.76)***	4.093 (7.44)***	11.079 (15.13)***	10.958 (15.16)***	11.087 (15.41)***	9.984 (14.02)***
Age	0.219 (13.67)***	0.230 (13.67)***	0.113 (9.00)***	0.233 (13.81)***	0.228 (13.71)***	0.213 (12.84)***	0.204 (12.39)***
Other control variables							
Household size	-0.596 (5.71)***	-0.561 (5.13)***	-0.218 (2.67)***	-0.572 (5.21)***	-0.570 (5.26)***	-0.447 (4.13)***	-0.438 (4.11)***
F	252.625	184.127	752.118	178.507	196.668	203.566	221.804
Number of variables	8,429	8,429	8,429	8,429	8,429	8,429	8,429

Source: Authors' computation using General Household Survey 2010/11 Note: * Significant at 5%, ** Significant at 10% and *** Significant at 1%. Estimation was based on control for age, experience and sector of employment

Table C 2: Determinants of learning outcome, primary completion rate

Education finance							
State per student revenue	16.286						
	(27.64)***						
Public unit cost		3.850					
		(7.66)***					
Household unit cost			20.083				
			(48.95)***				
Salary primary				26.757			
				(34.68)***			
Education supply							
STR					-0.141		
					(9.08)***		
Class size						-0.522	
						(38.11)***	
Qualified teachers							0.247
							(20.70)***
Household head							
Agriculture as main	-0.513	0.183	0.440	0.405	0.030	0.062	0.581
occupation	(0.78)	(0.27)	(0.73)	(0.63)	(0.04)	(0.10)	(0.87)
Incomplete primary	17.712	20.138	11.937	17.845	20.407	16.482	18.584
	(14.70)***	(16.10)***	(10.66)***	(15.19)***	(16.36)***	(14.18)***	(15.15)***
Complete primary	18.346	20.854	12.207	18.024	21.000	18.173	19.977
	(25.32)***	(27.87)***	(17.79)***	(25.51)***	(28.17)***	(26.11)***	(27.26)***
Complete junior	17.278	19.283	11.624	16.932	18.886	15.024	18.268
secondary	(11.01)***	(11.82)***	(8.00)***	(11.04)***	(11.58)***	(9.91)***	(11.43)***
Complete upper	13.796	17.093	10.526	14.325	16.990	15.496	17.013
secondary and above	(15.99)***	(19.23)***	(13.19)***	(17.10)***	(19.14)***	(18.82)***	(19.59)***
Female	11.532	15.710	8.774	15.891	15.975	16.065	14.610
	(10.89)***	(14.41)***	(8.99)***	(15.55)***	(14.69)***	(15.92)***	(13.68)***
Age	0.291	0.306	0.186	0.286	0.307	0.247	0.271
	(12.08)***	(12.21)***	(8.31)***	(12.13)***	(12.26)***	(10.62)***	(10.99)***
Other control variables							
Household size	-0.797	-0.753	-0.399	-0.608	-0.771	-0.365	-0.586
	(5.08)***	(4.61)***	(2.76)***	(3.97)***	(4.73)***	(2.41)**	(3.66)***
F	228.479	170.492	362.604	264.513	172.437	285.061	200.889
N	8,429	8,429	8,429	8,429	8,429	8,429	8,429

Source: Authors' computation using General Household Survey 2010/11 Note: * Significant at 5%, ** Significant at 10% and *** Significant at 1%. Estimation was based on control for age, experience and sector of employment

Table C 3: Determinants of learning outcome, literacy at grade 4:

Education finance							
State per student revenue	-4.065 (10.58)***						
Public unit cost		-1.774 (5.61)***					
Household unit cost			7.175 (25.49)***				
Salary primary				-9.643 (19.00)***			
Education supply							
STR					-0.007 (0.68)		
Class size						-0.127 (13.81)***	
Qualified teachers							0.222 (30.35)***
Students Characteristics							
Female	-0.660 (1.78)*	-0.595 (1.60)	-0.238 (0.66)	-0.577 (1.58)	-0.537 (1.44)	-0.532 (1.44)	-0.187 (0.53)
Age in years squared	0.153 (1.02)	0.122 (0.81)	0.124 (0.86)	0.091 (0.62)	0.125 (0.83)	0.145 (0.98)	0.106 (0.74)
Wealth Quintiles							
Poor	-0.910 (1.58)	-1.101 (1.90)*	-1.270 (2.27)**	-1.164 (2.05)**	-1.089 (1.88)*	-0.874 (1.52)	-1.068 (1.94)*
Middle	-0.317 (0.43)	-0.717 (0.96)	-1.471 (2.04)**	-0.653 (0.89)	-0.737 (0.98)	-0.587 (0.79)	-1.193 (1.68)*
Rich	0.407 (0.43)	-0.069 (0.07)	-1.640 (1.79)*	-0.115 (0.12)	-0.151 (0.16)	0.076 (0.08)	-0.679 (0.75)
Richest	1.306 (1.07)	0.816 (0.67)	-1.491 (1.26)	0.590 (0.49)	0.642 (0.53)	0.910 (0.75)	0.208 (0.18)
Household head							
Agriculture as main occupation	-2.170 (5.05)***	-2.334 (5.41)***	-2.280 (5.48)***	-2.418 (5.72)***	-2.365 (5.47)***	-2.397 (5.61)***	-2.041 (4.98)***
Incomplete primary	0.220 (0.28)	-0.270 (0.34)	-3.647 (4.75)***	0.502 (0.65)	-0.535 (0.68)	-1.546 (1.98)**	-2.405 (3.21)***
Complete primary	0.586 (1.24)	0.060 (0.13)	-3.416 (7.26)***	1.033 (2.22)**	-0.173 (0.37)	-0.927 (1.98)**	-1.368 (3.05)***
Complete junior secondary	-0.792 (0.77)	-1.214 (1.18)	-4.254 (4.27)***	-0.404 (0.40)	-1.421 (1.38)	-2.514 (2.46)**	-2.628 (2.69)***
Complete upper secondary and above	-1.423 (2.53)**	-2.151 (3.85)***	-4.863 (8.88)***	-1.199 (2.18)**	-2.383 (4.25)***	-2.856 (5.15)***	-2.830 (5.33)***
Female	0.994 (1.44)	0.034 (0.05)	-2.763 (4.13)***	-0.071 (0.10)	-0.152 (0.22)	-0.154 (0.23)	-1.481 (2.27)**
Age	0.093 (5.90)***	0.090 (5.72)***	0.041 (2.71)***	0.097 (6.27)***	0.087 (5.49)***	0.071 (4.53)***	0.049 (3.23)***
Other control variables							
Household size	-0.487 (4.77)***	-0.505 (4.92)***	-0.351 (3.54)***	-0.554 (5.50)***	-0.489 (4.75)***	-0.387 (3.79)***	-0.310 (3.16)***
Rural	-7.653 (17.94)***	-7.922 (18.52)***	-6.871 (16.55)***	-7.732 (18.42)***	-7.936 (18.49)***	-7.723 (18.21)***	-7.656 (18.81)***
F	51.985	46.525	88.414	68.862	44.422	57.314	106.816
N	8,429	8,429	8,429	8,429	8,429	8,429	8,429

Source: Authors' computation using General Household Survey 2010/11 Note: * Significant at 5%, ** Significant at 10% and *** Significant at 1%. Estimation was based on control for age, experience and sector of employment

Table C 4: Determinants of learning outcome, literacy at grade 6

Education finance							
State per student revenue	-0.136						
	(0.48)						
Public unit cost		2.720					
		(11.74)***					
HH unit cost			5.264				
			(25.34)***				
Salary primary				-1.988			
				(5.21)***			
Education supply							
STR					-0.037		
					(5.08)***		
Class size						-0.077	
						(11.34)***	
Qualified teachers							0.152
							(27.97)***
Students' characteristics							
Female	-0.154	-0.065	0.072	-0.157	-0.129	-0.144	0.092
	(0.56)	(0.24)	(0.27)	(0.57)	(0.47)	(0.53)	(0.35)
Age in years squared	0.105	0.108	0.105	0.098	0.112	0.117	0.092
	(0.95)	(0.98)	(0.98)	(0.88)	(1.02)	(1.06)	(0.86)
Wealth Quintiles							
Poor	-1.093	-1.093	-1.226	-1.113	-1.055	-0.964	-1.080
	(2.55)**	(2.58)***	(2.97)***	(2.61)***	(2.47)**	(2.27)**	(2.64)***
Middle	-0.978	-1.038	-1.525	-0.974	-0.945	-0.896	-1.299
	(1.77)*	(1.89)*	(2.86)***	(1.77)*	(1.71)*	(1.63)	(2.46)**
Rich	-0.211	-0.364	-1.318	-0.221	-0.199	-0.088	-0.587
	(0.30)	(0.53)	(1.95)*	(0.32)	(0.29)	(0.13)	(0.88)
Richest	0.108	-0.187	-1.477	0.075	0.109	0.250	-0.210
	(0.12)	(0.21)	(1.69)*	(0.08)	(0.12)	(0.28)	(0.24)
Household head							
Agric. Occp	-1.513	-1.552	-1.464	-1.532	-1.571	-1.544	-1.303
	(4.75)***	(4.91)***	(4.77)***	(4.82)***	(4.94)***	(4.88)***	(4.28)***
Incom. primary	2.337	1.925	0.019	2.523	2.239	1.689	1.022
	(4.01)***	(3.34)***	(0.03)	(4.34)***	(3.86)***	(2.92)***	(1.83)*
Comp. primary	3.124	2.765	0.709	3.344	3.014	2.632	2.270
	(8.91)***	(8.01)***	(2.04)**	(9.57)***	(8.70)***	(7.59)***	(6.82)***
Comp. lower sec	3.742	3.460	1.617	3.924	3.522	3.036	2.871
	(4.93)***	(4.60)***	(2.20)**	(5.18)***	(4.64)***	(4.02)***	(3.95)***
Comp upper sec+	1.777	1.430	-0.093	1.985	1.603	1.443	1.422
	(4.26)***	(3.49)***	(0.23)	(4.79)***	(3.88)***	(3.52)***	(3.60)***
Female	1.207	0.893	-0.751	1.184	1.136	1.164	0.254
	(2.36)**	(1.78)*	(1.52)	(2.34)**	(2.25)**	(2.32)**	(0.52)
Age	0.094	0.089	0.061	0.096	0.092	0.084	0.068
	(8.08)***	(7.70)***	(5.35)***	(8.25)***	(7.93)***	(7.26)***	(6.05)***
Other control variables							
Rural	-4.429	-4.486	-3.646	-4.394	-4.348	-4.300	-4.236
	(13.98)***	(14.31)***	(11.91)***	(13.92)***	(13.76)***	(13.70)***	(14.01)***
Household size	-0.440	-0.416	-0.338	-0.453	-0.436	-0.378	-0.317
	(5.80)***	(5.53)***	(4.62)***	(5.98)***	(5.75)***	(5.00)***	(4.35)***
F	49.461	58.874	93.366	51.301	51.211	58.233	102.945
N	8,429	8,429	8,429	8,429	8,429	8,429	8,429

Source: Authors' computation using General Household Survey 2010/11 Note: * Significant at 5%, ** Significant at 10% and *** Significant at 1%. Estimation was based on control for age, experience and sector of employment

Table C 5: Determinants of learning outcome, junior secondary completion rate on time

Education finance							
State per student revenue	8.619						
	(32.24)***						
Public unit cost		2.764					
		(12.08)***					
Household unit cost			13.364				
			(75.62)***				
Teacher salary (Log)				16.247			
				(42.83)***			
Education supply							
JSS STR					-0.108		
					(12.37)***		
JSS class size						-0.143	
						(22.80)***	
JSS qualified teachers							0.063
							(9.33)***
Students' characteristics							
Female	0.095	0.222	0.076	-0.720	0.183	0.189	0.252
	(0.36)	(0.82)	(0.35)	(2.69)***	(0.67)	(0.71)	(0.92)
Age in years squared	-0.015	0.047	0.029	0.028	0.041	0.077	0.050
	(0.18)	(0.54)	(0.42)	(0.26)	(0.47)	(0.90)	(0.58)
Wealth quintiles							
Poor	-0.131	-0.263	-0.281	0.425	-0.226	-0.174	-0.199
	(0.32)	(0.62)	(0.83)	(1.02)	(0.54)	(0.42)	(0.47)
Middle	1.111	1.435	0.717	1.828	1.661	1.440	1.542
	(2.14)**	(2.64)***	(1.65)*	(3.41)***	(3.06)***	(2.70)***	(2.83)***
Rich	1.939	2.401	0.560	2.892	2.580	2.282	2.517
	(2.98)***	(3.54)***	(1.03)	(4.27)***	(3.81)***	(3.43)***	(3.70)***
Richest	1.928	2.078	0.428	4.043	2.278	1.932	2.261
	(2.36)**	(2.43)**	(0.63)	(4.62)***	(2.67)***	(2.30)**	(2.64)***
Head_agric	-0.192	-0.065	-0.168	-0.355	-0.131	-0.290	0.126
	(0.65)	(0.21)	(0.67)	(1.15)	(0.42)	(0.95)	(0.40)
Household head							
Agriculture as main occupation	7.946	9.095	4.417	7.031	9.285	8.932	9.410
	(14.46)***	(15.89)***	(9.55)***	(12.40)***	(16.24)***	(15.90)***	(16.41)***
Incomplete primary	7.654	9.173	3.921	7.049	9.219	8.854	9.565
	(23.58)***	(27.40)***	(14.15)***	(20.72)***	(27.58)***	(26.93)***	(28.57)***
Complete primary	8.289	9.929	4.415	7.966	9.720	9.810	10.333
	(11.53)***	(13.27)***	(7.31)***	(10.80)***	(12.98)***	(13.35)***	(13.76)***
Complete junior secondary	5.784	7.739	3.215	5.977	7.773	7.732	8.187
	(15.18)***	(19.74)***	(10.06)***	(14.85)***	(19.85)***	(20.12)***	(20.83)***
Complete upper secondary and above	5.524	7.421	3.747	6.627	7.597	6.941	7.648
	(11.69)***	(15.18)***	(9.50)***	(13.48)***	(15.56)***	(14.44)***	(15.61)***
Female	0.164	0.179	0.107	0.121	0.178	0.162	0.183
	(15.57)***	(16.32)***	(12.10)***	(10.66)***	(16.25)***	(15.03)***	(16.60)***
Other control variables							
Household size	-0.366	-0.367	-0.280	-0.390	-0.364	-0.369	-0.375
	(5.19)***	(4.99)***	(4.75)***	(5.30)***	(4.96)***	(5.12)***	(5.08)***
Rural	-1.627	-0.926	-0.359	-1.064	-0.654	-0.312	-0.701
	(5.44)***	(2.97)***	(1.44)	(3.47)***	(2.10)**	(1.02)	(2.24)**
F	255.046	183.537	629.621	303.295	184.100	213.444	178.811
N	9,812	9,812	9,812	8,429	9,812	9,812	9,812

Source: Authors' computation using General Household Survey 2010/11 Note: * Significant at 5%, ** Significant at 10% and *** Significant at 1%. Estimation was based on control for age, experience and sector of employment

Table C 6: Marginal effect: Determinants of learning outcomes, National, North and South Zones

	Nigeria		North		South	
	Grade 6 test	JSS completed	Grade 6 test	JSS completed	Grade 6 test	JSS completed
Education finance						
State per student revenue	0.315		12.044		-8.918	
	(0.92)		(20.26)***		(31.57)***	
Public unit cost	0.569		-1.311		2.508	
	(2.25)**		(3.57)***		(11.06)***	
Household unit cost	18.99		8.98		9.55	
	(72.42)***		(19.57)***		(27.15)***	
Education supply						
Salary primary		4.088		-3.874		5.104
		(7.20)***		(5.57)***		(10.67)***
STR		-0.133		-0.150		0.065
		(11.96)***		(12.76)***		(5.44)***
Class size		-0.01992		-0.1012		-0.1045
		(1.64)		(6.39)***		(10.31)***
Qualified teachers		0.180		-0.134		0.143
		(19.99)***		(11.81)***		(16.83)***
Students characteristics						
Student-female	0.213	-0.040	0.487	0.156	-0.037	0.287
	(0.72)	(0.11)	(1.23)	(0.36)	(0.13)	(0.89)
Age in years squared	0.201	0.246	-0.005	0.110	0.253	0.189
	(1.69)*	(1.61)	(0.03)	(0.62)	(2.24)**	(1.52)
Wealth Quintiles						
Poor	-0.258	0.086	-0.197	0.101	-0.172	-0.459
	(0.56)	(0.15)	(0.35)	(0.16)	(0.33)	(0.79)
Middle	-0.158	0.943	-0.522	0.637	0.089	-1.066
	(0.26)	(1.23)	(0.69)	(0.77)	(0.13)	(1.47)
Rich	0.630	3.439	-0.167	2.046	0.561	-0.235
	(0.83)	(3.54)***	(0.17)	(1.90)*	(0.68)	(0.26)
Richest	0.545	5.029	-0.055	5.065	-0.162	-0.919
	(0.56)	(4.02)***	(0.04)	(3.52)***	(0.15)	(0.79)
Household head						
2.head_sect	1.005	5.982	-1.482	0.267	2.733	3.952
	(1.76)*	(8.21)***	(1.61)	(0.26)	(5.76)***	(7.60)***
Agriculture as main occupation	-0.523	0.567	-1.170	-1.646	1.579	2.563
	(1.45)	(1.22)	(2.34)**	(2.98)***	(4.62)***	(6.85)***
Incomplete primary	5.677	11.512	2.429	4.184	0.288	-1.756
	(8.98)***	(14.28)***	(2.06)**	(3.23)***	(0.55)	(3.02)***
Complete primary	5.274	11.937	3.528	3.942	0.990	0.250
	(13.62)***	(24.56)***	(6.47)***	(6.52)***	(2.44)**	(0.55)
Complete junior secondary	6.147	11.392	6.393	5.680	0.697	-0.493
	(7.50)***	(10.86)***	(5.43)***	(4.36)***	(0.91)	(0.58)
Complete upper secondary and above	2.914	8.013	3.488	4.261	0.081	-0.361
	(6.44)***	(13.97)***	(5.88)***	(6.49)***	(0.16)	(0.66)
Female	3.971	9.537	4.918	10.355	0.097	-1.524
	(7.18)***	(13.62)***	(4.73)***	(9.05)***	(0.18)	(2.66)***
Age	0.115	0.199	0.051	0.047	0.025	0.034
	(9.07)***	(12.34)***	(2.94)***	(2.48)**	(1.98)**	(2.51)**
Other control variables						
Household size	-0.234	-0.483	-0.080	-0.059	-0.194	-0.465
	(2.84)***	(4.58)***	(0.82)	(0.55)	(1.81)*	(3.97)***
Rural	-0.746	-2.456	-0.335	-0.195	-0.448	-3.932
	(2.13)**	(5.52)***	(0.69)	(0.36)	(1.35)	(11.15)***
F	634.300	201.571	92.943	29.213	127.589	70.370
N	8,429	8,429	4,921	4,921	3,508	3,508

Source: Authors' computation using General Household Survey 2010/11 Note: * Significant at 5%, ** Significant at 10% and *** Significant at 1%. Estimation was based on control for age, experience and sector of employment

Annex D. Examples of evaluated interventions or programs and lessons learned

29. Each innervation/program presented includes a topic or section identified as having potential interest for ploy makers. The note is summarized under the following 8 interventions/programs conditional cash transfer programs, school meals program, child-friendly schools, public-private partnership, community participation, school based management, incentives for quality improvement, and learning assessment and E&M system

Conditional Cash transfer programs

30. Pakistan Conditional Cash Transfers: Pakistan Gender-based CCT. In 2003, the Government of Pakistan announced a CCT program targeted to female students in Punjab, with a goal of reducing gender disparity in education. A monthly stipend was provided to girls on condition they were enrolled in grades 6 to 8 at a government school and maintain a minimum attendance of 80 percent. Program districts were selected based on district-level literacy rates for the population aged 10 and over, and only those with rates below 40 percent were eligible. The impact evaluation found that the program increased the enrollment of girls, and also that of boys. However, the student-teacher ratio in treated districts rose, which could cause instructional quality to suffer if not addressed. The program success appears to have been driven by enrollment increases in urban schools, which suggests the need for a reassessment of the targeting criteria in rural schools. (Amer Hasan, 2010)

31. Mexico Conditional Cash Transfers: School Subsidies for the Poor: Evaluating the Mexican Progresa Poverty Program. The Progresa program provides poor mothers in rural Mexico with education grants in order to boost enrollment. Poor children who reside in communities randomly selected to participate in the initial phase of the Progresa are compared to those who reside in other (control) communities. Pre-program comparisons check the randomized design, and double difference estimators of the program's effect on the treated are calculated by grade and sex. Probit models are also estimated for the probability a child is enrolled, controlling for additional characteristics of the child, their parents, local schools, and community, and for sample attrition, to evaluate the sensitivity of the program estimates. These estimates of program short-run effects on enrollment are extrapolated to the lifetime schooling and the earnings of adults to approximate the internal rate of return on the public schooling subsidies as they increase expected private wages. (T. Paul Schultz, 2004)

32. Cambodia Student Scholarships and Incentives: Getting Girls into School: Evidence from a Scholarship Program in Cambodia. The Japan Fund for Poverty Reduction (JFPR) scholarship program was launched in 2004 with the goal of to increasing school attainment of girls. It awarded grants to girls transitioning from the last year of primary school to the first year of secondary school. Students received a scholarship throughout the three years of junior secondary school on condition that they maintained a passing grade and were absent “without good reason” for less than 10 days a year. The impact evaluation shows that the JFPR program had a large, positive effect on the school enrollment and attendance of girls, and appears to have had the largest impact among girls with the lowest socioeconomic status at baseline. The results are robust to a variety of controls for observable

differences between scholarship recipients and no recipients, to unobserved heterogeneity across girls, and to selective attrition out of the sample. (Deon Filmer and Norbert Schady, 2006)

33. Indonesia Student Scholarships and Incentives: Protecting Education for the Poor in Times of Crisis: An Evaluation of a Scholarship Program in Indonesia. This paper analyses the impact of an Indonesian scholarship program, which was implemented in 1998 to preserve access to education for the poor during the economic crisis. Scholarships were targeted pro-poor and the allocation process followed a decentralized design, involving both geographic and individual targeting. The identification strategy exploits this decentralized structure, relying on instrumental variables constructed from regional mis-targeting at the initial phase of allocation. The program has increased enrollment, especially for primary school-aged children from poor rural households. Moreover, the scholarships seem to have assisted households in smoothing consumption during the crisis, relieving pressure on households' investments in education and utilization of child labor. (Robert Sparrow, 2007)

34. Brazil Conditional Cash Transfers: The Impact of the Bolsa Escola/Familia Conditional Cash Transfer Program on Enrollment, Drop Out Rates and Grade Promotion in Brazil. The Bolsa program provides monthly cash payments to poor households with children between the ages of 6 and 15 who are enrolled in school. Using eight years of school census data (from 1998 to 2005), the study compares changes in enrollment and in dropout and grade advancement rates across schools that adopted the Bolsa program at different times. After accounting for cumulative effects, the Bolsa program has increased enrollment in Brazil by about 5.5 percent in grades 1-4 and by about 6.5 percent in grades 5-8. The program has also lowered dropout rates by about 0.5 percentage points and raised grade promotion rates by about 0.9 percentage points for children in grades 1-4, and reduced dropout rates by about 0.4 percentage points and increased grade promotion rates by about 0.3 percentage points for children in grades 5-8. (Paul Glewwe and Ana Lucia Kassouf, 2010)

School meals program

35. India School meals program: The Impact of school meals on school participation: Evidence from rural India. This paper assesses the effect of transition from monthly distribution of free food grains to the daily provision of free cooked meals to school children on enrollments and attendance in a rural area of India. School panel data allow a difference-in-differences estimation strategy to address possible endogeneity of program placement. The results suggest that program transition had a significant impact on improving the daily participation rates of children in lower grades. The average monthly attendance rate of girls in grade 1 was more than 12 percentage points higher while there was a positive but insignificant effect on grade 1 boys' attendance rate. The impact on enrollment levels was insignificant. (Farzana Afridi, 2007).

36. Kenya School Meals: School Meals, Educational Achievement and School Competition: Evidence from a Randomized Evaluation. The program was implemented in Western Kenya in 25 randomly chosen preschools from a pool of 50. It provided a fully subsidized in-school breakfast on every school day to all students attending preschool. School participation was 30 percent higher in the treatment group than in the comparison group. The breakfast program led to higher curriculum test scores, but only in schools where the teacher was relatively experienced prior to the program. The

school meals displaced teaching time and led to larger class sizes. Despite improved incentives, teacher absenteeism remained at a high level of 30 percent. (Christel Vermeersch and Michael Kremer, 2004).

Child-friendly schools

37. Ethiopia Child-Friendly Schools (CFS): With assistance from UNICEF, Ethiopia began implementing the CFS program in 2007 in 51 selected primary schools with an estimated reach of more than 80,000 students. The program sought to improve education quality, outcomes and childhood development by addressing perceived school-based barriers that limit access to education and participation in school. Interventions include renovation or construction of classrooms, teaching and early childhood development (ECD) centers, libraries, and water and sanitation facilities; provision of furniture, education materials, equipment, and uniforms. The CFS program had a positive and significant effect on enrollment, especially in favor of girls, and community participation. However, the CFS program did not reduce dropout and repetition rates over the program period (UNICEF, 2010).

Public-private partnership

38. Pakistan Public-Private Partnership: Extending educational access in Pakistan through the Promoting Low-Cost Private Schooling in Rural Sindh (PPRS) program. The PPRS program was implemented by the Sindh Education Foundation (SEF), a quasi-governmental agency of the Sindh provincial government in Pakistan. The program sought to increase access to primary education in underserved rural communities through PPPs with local entrepreneurs. In return for a per-child subsidy by the Sindh provincial government, private entrepreneurs established and operated primary schools to which children between the ages of 5 and 9 were eligible for free enrollment. Entrepreneurs in half of the treatment villages received the same amount for male and female students, while the other half received a higher subsidy for girls than boys. The PPRS program led to large gains in enrollment within both the target age group and for older children, with a similar effect for both girls and boys. The gender-differentiated subsidy showed no greater effectiveness in increasing female enrollment than the equal-value subsidy. (David S. Blakeslee, Dhushyanth Raju, Felipe Barrera-Osorio, Leigh L. Linden, Matthew Hoover, 2011).

39. Pakistan Private School Subsidies: Can Private School Subsidies Increase Enrollment for the Poor? The Quetta Urban Fellowship Program sought to expand primary education for girls by creating private girls' schools in poor urban areas of Quetta, Pakistan. Enrollment growth in these randomly selected neighborhoods is compared to enrollment growth in similar neighborhoods that were randomly assigned to a control group. The impact evaluation shows the program increased girls' enrollment by around 33 percentage points. Boys' enrollment also rose, partly since boys were allowed to attend the new schools and partly because parents would not only educate their daughters without also educating their boys. The success of the program varied across neighborhoods, although success was not clearly related to the relative wealth of a neighborhood or to parents' level of education. (Jooseop Kim, Harold Alderman, and Peter F. Orazem, 1999).

Community participation

40. Indonesia Community Participatio: Improving Educational Quality through Enhancing Community Participation: Results from a Randomized Field Experiment in Indonesia. Education ministries worldwide have promoted community engagement through school committees. This paper presents results from a large field experiment testing alternative approaches to strengthen school committees in public schools in Indonesia. Two novel treatments focus on institutional reforms. First, some schools were randomly assigned to implement elections of school committee members. Another treatment facilitated joint-planning meetings between the school committee and the village council (linkage). Two more common treatments, grants and training, provided resources to existing school committees. We find that institutional reforms, in particular linkage and elections combined with linkage, are most cost-effective at improving learning. (Menno Pradhan, Daniel Suryadarma, Amanda Beatty, Maisy Wong, Arya, Gaduh, Armida Alisjahbana, and Rima Prama Artha, 2013).

41. Mexico Tracking and Peer Effects: Neighborhood Peer Effects in Secondary School Enrollment Decisions. This paper identifies neighborhood peer effects on children's school enrollment decisions using experimental evidence from the Mexican PROGRESA program. We use exogenously variation in the school enrollment of program eligible children to identify peer effects on the schooling decisions of ineligible children residing in treatment communities. We find that peers have considerable influence on the enrollment decisions of program-ineligible children, and these effects are concentrated among children from poorer households. These findings imply that policies aimed at encouraging enrollment can produce large social multiplier effects. (Gustavo J. Bobonis and Frederico Finan, 2009).

42. India community-based information campaign: What Can Experiments Tell Us About How to Improve Government Performance? The community-based information campaign consisted of eight to nine public meetings in each of 340 treatment villages across three Indian states. It sought to disseminate information to the community about its state mandated roles and responsibilities in school management. The findings from the first follow-up (2-4 months after the campaign) show that providing information through a structured campaign to communities had a positive impact in all three states. In two states there was a significant and positive impact on reading (14-27 percent) in one of the three grades tested; in the third state there was a significant impact on writing in one grade (15 percent) and on mathematics in the other grade tested (27 percent). The intervention is associated with improvement in teacher effort in two states. Some improvements occurred in the delivery of certain benefits entitled to students (stipend, uniform, and midday meal) and in process variables such as community participation in each of the three states. (Rachel M. Gisselquist and Miguel Niño Zarazúa, 2013).

School based management

43. Mexico School-Based Management: Empowering Parents to Improve Education: Evidence from Rural Mexico. The authors examine a program that involves parents directly in the management of schools located in highly disadvantaged rural communities. The program, known as AGE, finances parent associations and motivates parental participation by involving them in the management of the school grants. Using a combination of quantitative and qualitative methods, we show that the AGE

greatly increased the participation of parents in monitoring school performance and decision-making. Further, the authors find that AGE improved intermediate school quality indicators, namely grade failure and grade repetition, controlling for the presence of a conditional cash transfer program and other educational interventions. (Paul Gertler, Harry Patrinos, and Marta Rubio-Codina, 2008).

44. Latin America Countries School-Based Management: Does School Decentralization Raise Student Outcomes? Theory and Evidence on the Roles of School Autonomy and Community Participation. Using data on primary schools in 10 Latin-American countries, the study evaluates the impact of decentralized school decision-making on student performance. The model developed shows that local autonomous effort will be jointly determined with student academic performance. The model predicts that least squares estimates are biased toward finding a positive impact of school autonomy on student performance. Empirical tests confirm these predictions. Least squares estimates show a strong positive effect of decentralized decision-making on test scores, but these results are reversed after correcting for the endogeneity of school autonomy. However, results support the role of parental participation in the schools as a positive influence on student achievement. (Victoria Gunnarsson, Peter F. Orazem, Mario Sánchez, and Aimee Verdisco, 2004).

45. Kenya School Resource Provision: Many Children Left Behind? Textbooks and Test Scores in Kenya. A randomized evaluation in rural Kenya finds, contrary to the previous literature, that providing textbooks did not raise average test scores. Textbooks did increase the scores of the best students (ones with high pretest scores) but had little effect on other students. Textbooks are written in English, most students' third language, and many students could not use them effectively. More generally, the curriculum in Kenya, and in many other developing countries, tends to be oriented toward academically strong students, leaving many students behind in societies that combine a centralized educational system; the heterogeneity in student preparation associated with rapid educational expansion; and disproportionate elite power (Paul Glewwe, Michael Kremer, and Sylvie Moulin, 2009).

46. Kenya School Governance: School governance, teacher incentives, and student-teacher ratios: Experimental evidence from Kenyan primary schools. Under the Extra Teacher Program (ETP), school committees at randomly selected Kenyan schools hired an additional teacher on an annual contract outside usual Ministry of Education civil-service channels. Compensation was pegged at one-quarter normal levels, and contracts renewal conditional on performance. Test score for students randomly assigned to existing classes did not increase significantly, despite an average reduction in class size from 82 to 44. In contrast, scores increased for students assigned to classes taught by locally-hired contract teachers. One reason may be that contract teachers had low absence rates compared to centrally-hired civil-service teachers in schools participating in the ETP. Civil-service teachers also captured rents for their families, with approximately 1/3 of contract teacher positions going to relatives of existing teachers. (Esther Duflo, Pascaline Dupas, and Michael Kremer, 2012).

Incentives for quality improvement

47. Kenya Teacher Incentives, Tracking and Peer Effects: Peer Effects, Teacher Incentives, and the Impact of Tracking: Evidence from a Randomized Evaluation in Kenya. To the extent that students

benefit from high-achieving peers, tracking will help strong students and hurt weak ones. However, all students may benefit if tracking allows teachers to better tailor their instruction level. Lower-achieving students are particularly likely to benefit from tracking when teachers have incentives to teach to the top of the distribution. We propose a simple model nesting these effects, and test its implications in a randomized tracking experiment conducted with 121 primary schools in Kenya. While the direct effect of high-achieving peers is positive, tracking benefited lower-achieving students indirectly by allowing teachers to teach at their level. (Esther Duflo, Pascaline Dupas, and Michael Kremer, 2011).

48. Nigeria EKO project: A refined tracking of learning outcomes has been introduced in Lagos state under the World Bank funded EKO secondary education project: school score cards capture several dimensions of learning achievements under each subject (as shown below for English language) which allow teachers to benchmark their own teaching effectiveness with their colleagues in the same school, with other neighboring schools, etc. School score cards under the project also capture other qualitative dimensions such as extra-curricular activities; school beautification, staff training, students' counseling, communication, students' interest in learning and availability (e.g. their being busy with menial jobs during school hours), reading habits, etc.

49. Nigeria EKO project. In Nigeria itself, performance-based school grants have been introduced in 2009 in secondary education in Lagos state under a World Bank funded project (Lagos EKO Secondary Education project): school grants are awarded to all secondary public schools to help improve learning achievements but those meet the following criteria pertaining to 1) students' testing scores; 2) monitoring of teachers attendance and; 3) participatory school management measured through evidenced participation of the School Based Management Committee, are awarded additional resources (i.e. on top of school development grants).

50. India Teacher Incentives: Long-Term Effects of Teacher Performance Pay: Experimental Evidence from India. The study presents results from a five-year long randomized evaluation of group and individual teacher performance pay programs implemented across a large representative sample of government-run rural primary schools in the Indian state of Andhra Pradesh. It found consistently positive and significant impacts of the individual teacher incentive program on student learning outcomes across all durations of program exposure. Students who completed their full five years of primary school under the program performed significantly better than those in control schools by 0.54 and 0.35 standard deviations in math and language tests respectively. (Karthik Muralidharan, 2011).

Learning assessment and E&M system

51. Brazil Prova Brasil: With a goal of improving education quality, in 2005 Brazil's Ministry of Education expanded its sample-based assessment called the National Basic Education Evaluation System (SAEB) that was introduced in 1995. Renamed Prova Brasil, the exam tests all grade 4 and 8 students in math and Portuguese every two years. (SAEB remains a sample-based assessment for the 11th grade level.) Prova Brasil's census-based approach for primary education yields data on the average learning performance in each school administered by Brazil's 5,564 municipalities, 26 states, and the federal district. The assessment has led to marked progress in raising math skills of low performing

students, but the share of high performing students did not increase. Performance in reading is mixed, with a very small share of high performing students, and a lack of improvement in basic literacy levels of the lowest performing students. (Barbara Bruns, David Evans and Javier Luque, 2012).

52. Brazil Index for Basic Education Development (IDEB): IDEB was introduced in 2007 to measure both student learning results and student flows (grade progression, repetition and graduation rates) at school, local government, state and national level, which "has become rapidly accepted in Brazil as the leading metric for gauging the relative performance of individual schools as well as municipal , state, and private school systems" and is used by a few states and local governments to run teacher bonus programs. (Bruns, 2011).

53. India Teacher Training: The Impact of Diagnostic Feedback to Teachers on Student Learning: Experimental Evidence from India. The program provided low-stakes diagnostic tests and feedback to teachers, and low-stakes monitoring of classroom processes across a representative set of schools in the Indian state of Andhra Pradesh. Teachers in treatment schools exerted more effort when observed in the classroom, but students in these schools did not outperform students in the control group on independently-administered tests. This suggests that though teachers in the program schools worked harder while being observed, there was no impact of the feedback and monitoring on student learning outcomes. (Karthik Muralidharan and Venkatesh Sundararaman (2010).

Annex E: Methodological note

Annex E 1: Approach to Qualitative Data Collection

To understand the political economy of basic education services delivery we collected qualitative data from the three tiers of government organized in two phases: (i), Field to two states (Edo and Kogi) as pilot for consultation and information availability at state level followed by consultation with policy makers and (ii), field visit for qualitative data collection from all services delivery value chain from the selected 4 states followed by consultation with education sector experts and stakeholders focusing on the three key challenge areas. In the first phase, we visited two States to test data collection instrument and also to customize the consultation workshop with State policy makers. The consultation workshop was carried out in September 2014 with about 74 participants comprising of representatives from 15 States, as well as the Federal Ministry of Education and UBEC. The consultation targeted three levels of participants within the education sector management: (i) permanent secretary, or State education commissioner, (ii) directors, and (iii) NEMIS representatives. The workshop was structured around broader discussions of the education management system as well as governance and accountability issues, followed by a 20 question survey that was designed to capture different dimensions of education sector issues. In the second phase, qualitative data collection instrument was administrated with bottom-up-approach of tracing services delivery issues in the three tiers of government starting at school and community level in the 4 or the 6 selected states while the other two similar instrument much more broader instrument administrated as part of the PETs. Both field visits and experts discussion were structured around the three specific basic education challenges at the core of this report, (i) equity in access, (ii) quality of education, and (ii) the out-of-school prevalence. In addition, supplemental quantitative data were collected in the six States, specifically capturing quantitative and qualitative information from UBEC at the Federal level, SUBEB at the State level, State Ministry of Education, LGA, LGEA, SBMCs and school level. The main objective of the data collection was to capture the variations in the political economy of service delivery across States. In particular, it provided two important additions to the analysis: (i), it captured the complexities of the social and cultural aspects, which supplemented the information already available in the quantitative data, and (ii), it helped to understand whether the policymakers were aware of the issues at hand and gathered their input on potential viable solutions. The survey instruments used during the field visits and during the workshops are presented in detail in the annex, including summary of the key findings. Building on the information gathered and in order to provide comprehensive and yet focused policy recommendations, the qualitative analysis particularly helps to conceptualizations key issues including weather policymakers aware of the key basic education sector challenges, how policymakers' priorities and challenges vary by state, how influence of socioeconomic and cultural factors affect the education sector, factors hindering the full implementation of the UBEC law and whether there is a standard norm regarding human resource management in its the accountability framework.

Annex E 2: Benefit Incidence Analysis

54. Benefit incidence analysis (BIA) illustrates how public expenditure on services is distributed among population sub-groups, utilizing both the service provision costs and participation or usage rates of a specific service (Heltberg, Simler, and Tarp 2003). Benefit incidence studies are particularly useful in determining the extent to which public spending on social sectors - for the present chapter, education - benefits the poorest strata and therefore creates a well-targeted instrument for poverty reduction.90 BIA can likewise analyze expenditure by different groups or zonal locations, though this analysis requires greater disaggregation in spending data which was not available for this analysis. This chapter has been therefore limited to the income group (denoted by expenditure quintile).

55. Benefit incidence analysis requires three elements: household-level survey data which gathers (i) information from which to construct a proper welfare indicator (i.e. per capita household consumption expenditures, appropriately adjusted) and (ii) utilization of or participation in the public service of interest (enrollment in school), as well as administrative or budget data that provides (iii) unit costs to the government for the provision of those same services (e.g. the cost of one year of schooling per student).

56. In the case of the Nigeria, the GHS 2010/11 and Panel 2010/11 and 2012/13 are an adequate instrument that can be used to conduct a BIA with as it gathers appropriate information on both enrollment figures as well as consumption measures for constructing accurate welfare indicators. Welfare, in this case, is measured by aggregating household consumption over the last twelve months, after incorporating food consumption, non-food consumption, housing, and benefits derived from durable goods. The unit costs of education are derived from figures for public spending on education reported by the Ministry of Finance for Public Spending on Education. By utilizing government expenditure sources in addition to household expenditure on education, a more accurate unit cost can be calculated.

57. Individuals (or households) must first be ranked by their measure of welfare according to the household survey, and then aggregated into population groups in order to compare how the subsidy itself is distributed across these groups. These groups are typically quintiles or deciles. This analysis utilizes expenditure quintiles, in which the first quintile holds the poorest 20 percent of the population, and so on.

58. Next, using the data provided in the household survey, the total number of individuals who participated in or used the publicly provided service in question (those who were enrolled in school) must be identified. Each user (or household) is then be multiplied by the unit cost of service provision and finally, these beneficiaries are aggregated into their appropriate population groups (consumption

[90] The concept of benefit incidence analysis (BIA) originally pioneered by studies by Gillespie on Canada 1965, and extended to developing countries context by Meerman (1979) on Columbia, and Seloswski (1979) on Malaysia and in its modern stage by Need (1995), Selden and Wasylenko (1992), Sahn and Yonger (1999) on Africa, Demery (2000).

quintiles). It is the distribution of this in-kind transfer of the population that constitutes a benefit incidence analysis. The BIA model for the Nigeria at hand can be expressed as:

$$X_j \equiv \sum_{i=1}^{4} E_{ij} \frac{S_i}{E_i} \equiv \sum_{i=1}^{4} \frac{E_{ij}}{E_i} S_i$$

59. where X_j is the value of the total education subsidy imputed to consumption quintile j. E_{ij} represents the number of school enrollments of consumption quintile j at education level i, and E_i the total number of enrollments (across all consumption quintile) at that level. S_i is government spending on education level i and i (=1,..,4) denotes the level of education (primary, junior secondary, upper secondary, and tertiary). Note that S_i/E_i is the unit subsidy of providing a school place at level I (Demery 2000).

60. The resulting profile illustrates the distribution of public spending on education that is allocated to each welfare group (expenditure quintile), or the "benefit incidence". Concentration curves can then be plotted that show the cumulative distribution of these benefits across households, and can be compared to the cumulative distribution of total consumption (what is typically referred to as the Lorenz curve). The Lorenz curve is a graphical interpretation of the cumulative distribution of income on the vertical axis against the cumulative distribution of population on the horizontal axis. The progressivity of spending is pro-poor if the poor receive more of the service's benefits than the non-poor, as well as a share greater than their share of the population; graphically this line appears above the diagonal line as this is the line indicating that each quintile in the distribution is receiving the same share, in this case, 20 percent of spending. Pro-poor spending is an indication of the successful targeting of public service benefits towards poorer households (Heltberg, Simler, and Tarp 2003). "Not-pro-poor but progressive" refers to if the non-poor receive more than the poor, but the poor still receive a share larger than their share of consumption; graphically this line appears below the diagonal but above the Lorenz. "Not-pro-poor and regressive" occurs if the non-poor receive more than the poor, and the share of the poor is less than their share of consumption; graphically this line appears below the diagonal and below the Lorenz.

61. When determining enrollment as an element of BIA, its distribution can be interpreted in one of two ways: (1) net enrollment (the share of children of school-age groups attending the corresponding school level) or (2) gross enrollment (the share of all children regardless of their age who are attending a specific school level). The differences in these two can add depth to further interpretations of the benefit incidence analysis, particularly in the Nigeria where overages and older children still enrolled in primary school contribute to differing enrollment rates.

Annex E 3: Oaxaca Decomposition

62. The standard conceptual approach for education services is model as the notion of production function (Heynema, 1979; Krueger, 2003 and Orazem and King, 2008) and others also treated as utility function (Glewwe, and Kremer, 2005) to establish causal relationship between educational outcomes and determinants of the outcomes. In the former case, schools are treated as producers and best viewed as organizations that should try to maximize output, subject to their budget constraints. In the latter

case, conceptual framework is farmed as household maximizing utility that can be consumed at different points in time (life cycle), and each child's years of schooling and learning. Both the production and utility maximization approaches could fit to our data and proposed estimation methodologies, one can refer to the cited sources for the details. In this proposal, we aims to develop on the modified production function for education defined as:

$$Y = f(X) + \varepsilon$$

Where Y is outcome measures (outcome indicators), X is a vector of variables and ε is unobserved factors or residuals which includes student innate ability, motivations, and other quality improvement efforts.

63. Similar to the literature, this proposal aims to employ the extended Oaxaca -Blinder (1973) decomposition models and estimate the learning achievement (test scores) change over-time both at mean and distributions. Using the above production function, student performance can be modeled as a function of various determinants of educational performance, including both individual/family background characteristics and school characteristics. The school achievement difference change between the following four categories: (i), north and south, (ii) areas of residence, (iii) gender, and (iv), poorest and richest wealth quintile. Based on the first category (north and south) this can be represented as:

$$\begin{aligned}\Delta north, south \quad &= E(Y_{south}/X_{south}) - E(Y_{north}/X_{north}) \\ &= \sum_{k=1}^{K} \hat{\beta}_{north,k}(\bar{X}_{north,k} - \bar{X}_{south,k}) + \sum_{k=1}^{K} \bar{X}_{south,k}(\bar{X}_{north,k} - \bar{X}_{south,k}) \\ &\quad + \sum_{k=1}^{K} (\bar{X}_{south,k} - \bar{X}_{north,k})(\hat{\beta}_{south,k} - \hat{\beta}_{north,k})\end{aligned}$$

64. Where k is the regressor (k=1 is the intercept) and gap will be there if there is no difference between the two periods. The gap is decomposed in three effects: (i), the endowment (or characteristic) effect (first term) is the difference in scores due to differences in the average for each regresor, weighted by the group north slope. It represents the part of the score gap that can be explained just because of different average characteristics between both groups i.e. it represents the explained component of the performance gap. This term indicates how differences in the average endowments of individual and/or school resource/quality characteristics between the two groups affect the average performance gap, (ii), the returns effect or coefficient (second term) represents the proportion of the score gap that can be explained by differences in the slopes between both groups (given the average group north characteristics). Note that the last two terms on the right of equation collectively represent what Oaxaca (1973) originally in the labor market context referred to as the "discrimination" or "residual" component of the wage gap. However, Blinder (1973) went further in identifying the two separate parts of the discrimination component as one part due to differences in the intercepts and one part due to differences in the coefficients, and the former has since been referred to the "pure discrimination" component and the latter as the unexplained component, and (iii), the interaction effect (third term) is the residual part of the decomposition. In the context of this study, the component is noted as representing the difference in "pure" efficiency; that is, differences in performance that are unrelated

to the covariates included in the model such as differences in unobserved school quality or efficiency and individual characteristics (Krieg and Storer, 2006).

65. Studies analyzing differences between two groups have further been interested in the investigation of the individual and collective contributions of characteristics to the explained and unexplained components (Ammermuller, 2007). For example, we might be interested in evaluating how much of the difference in test scores between students in the countries/areas/gender is due to differences in individual and family background characteristics, and how much is due to differences in school characteristics and expressed as:

$$\hat{Y}_{south} - \hat{Y}_{north} = \hat{\alpha}_{south} - \hat{\alpha}_{north} + \hat{\gamma}_{south}(\hat{Z}_{south} - \hat{Z}_{north}) + \hat{\delta}_{south}(\hat{R}_{south} - \hat{R}_{north}) + \hat{Z}'_{north}(\hat{\gamma}_{south} - \hat{\gamma}_{north}) + \hat{R}'_{north}(\hat{\alpha}_{south} - \hat{\delta}_{north})$$

66. It is fairly simple to identify the contributions of individual characteristics to the explained component given that the total component is merely a sum over the individual contributions (Jann, 2008: 8). For example:

$$\widehat{Explained}\text{ gap} = \hat{\beta}_{\text{south}}(\bar{\hat{X}}_{\text{south}} - \bar{\hat{X}}_{\text{north}}) = \hat{\beta}_{1,\text{north}}(\bar{\hat{X}}_{1,\text{south}} - \bar{\hat{X}}_{1,\text{north}}) + \hat{\beta}_{2,\text{south}}(\bar{\hat{X}}_{2,\text{south}} - \bar{\hat{X}}_{2,\text{north}}) + \cdots + \hat{\beta}_{\text{n,south}}(\bar{\hat{X}}_{\text{n,south}} - \bar{\hat{X}}_{\text{n,north}})$$

where $\bar{\hat{X}}_{1,\text{south}}, \bar{\hat{X}}_{2,\text{north}}$ are the means of the individual and school characteristics, $\hat{\beta}_{1,\text{south}}, \hat{\beta}_{2,\text{north}}$ are the associated partial regression coefficients. Furthermore, standard errors for the individual contributions are straight forward to estimate (Jann, 2008). However, estimating the contributions of the individual characteristics to the total unexplained component is less straightforward. This is due to the fact that the results offered by the detailed Oaxaca-Blinder decomposition of test score differentials are not invariant to the choice of reference (omitted) group when using dummy variables in the education production functions (Jones, 1983; Oaxaca & Ransom, 1994; Nielsen, 2000; Horrace & Oaxaca, 2001; and Yun, 2005). The choice of reference group does not, however, affect either the total contribution or individual contributions of each categorical variable to the explained component. Conversely, a change of reference category is found to not only change the individual contributions of single categorical variables to the unexplained component, but also to alter the contribution of the category as a whole.

Thus, following Jones (1983) detailed decomposition of the unexplained component is given as:

$$\widehat{\text{Unexplained}}\text{ gap} = \left[(\hat{\alpha}_{\text{south}} - \hat{\alpha}_{\text{north}}) + \bar{\hat{X}}_{\text{B2003}}(\hat{\beta}_{1,\text{south}} - \hat{\beta}_{1,\text{north}})\right]$$

67. The first term on the right hand side of equation is the part of the unexplained gap that is due to "pure" performance differentials; the second term represents that part of the unexplained gap that is due to differences in the education production process (that is, differences in the way that educational input X is transformed into educational outputs or returns to characteristics). Assuming further that the zero point of a continuous variable, Xi, is shifted by adding a constant a, the decomposition is now given by:

$$\widehat{\text{Unexplained}}\text{ gap} = \left[\hat{\alpha}_{\text{south}} - a\hat{\beta}'_{1,\text{south}}\right) - \left(\hat{\alpha}_{\text{north}} - a\hat{\beta}'_{1,\text{north}}\right) + (\hat{X}'_{\text{north}} - a)(\hat{\beta}_{1,\text{south}} - \hat{\beta}_{1,\text{north}})\right]$$

68. The scale shift in Xi results in a transfer of a$(\hat{\beta}_{1A} - \hat{\beta}_{1B})$ from the "pure" performance effect to the other part of the unexplained gap that is due to differences in coefficients. Therefore, the detailed decomposition results for the unexplained component changes when no natural zero point exists for one or more of the predictor variables and one can refer to Yun (2005) for the proposed solution to the identification problem, however, more recent studies (Fortin, Lemieux, and Firpo 2010, Machado and Mata (2005), and Altonji, Bharadwaj and Lamge , 2008) considered this solution as less establish and still evolving and caution should be taken when interpreting the detailed decomposition results. Overall, while breakdown of unexplained part into coefficient and instructions seems interesting, for simplicity and due to the narrow coverage of the analysis we used unexplained without further decomposition.

Annex E 4: Internal Efficiency: Efficiency analysis of the Nigeria education system using DEA

69. Data Envelopment Analysis (DEA) is based on the construction of an empirical non-parametric production frontier and the measurement of the efficiency through the distance between the observed data and the optimal value of these data given by the estimated frontier. In the current analysis, the production frontier approximates the maximum quality or access to education (the output) that could be achieved given different levels of educational resources (the inputs). The figure below illustrates the efficiency measurement with DEA in a hypothetical case of one input x that is used to produce one output y.

70. The frontier gives maximum levels of the output that could be achieved given different quantities of the input used. In the DEA literature, observations are called Decision Making Units (DMUs). DMUs that are on the frontier are relatively efficient (for instance, DMU at the point C) while those below the frontier are relatively inefficient (for instance, DMU at the point A). The level of efficiency is given by the distance to the frontier. Let's consider the DMU_0 initially at the point A. This DMU uses x_0 units of the input in order to produce y_0 units of the output. As already mentioned, DMU_0 is not relatively efficient. In order to be efficient, this DMU can reduce its input in the way that it projects on the frontier at the point B. In other terms, in order to be efficient, this DMU can keep its output level unchanged but has to reduce its input to the optimal level. The optimal quantity of input is given by θx_0 with $0 \leq \theta \leq 1$. The higher is θ, the closer the DMU is to the frontier and the more efficient is the considered DMU. The value of θ is the efficiency measure. This approach is called input oriented DEA. There is an alternative to the input oriented DEA (the output oriented DEA) which is about how to get the frontier by increasing the output given the input used. While there are also several DEA models, the model that we use is the one developed by Charles, Cooper, and Rhodes (1981). In this study, we use input oriented approach because we would like to focus on the use of resources in the Nigeria basic education system.

Illustration of the efficiency measurement with DEA