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PROGRESSIVITY OF EDUCATION SPENDING IN NIGERIA

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Zusammenfassung

Diese Studie untersucht die Verteilungswirkungen der Bildungsausgaben in Nigeria. Die Studie basiert auf den verwendeten primären und sekundären Daten aus Nigeria. Die entsprechenden Daten wurden mittels verschiedener Methoden und Verfahren (Graphical Analysis, Benefit Incidence Analysis, Kakwani Progressivity Index Analysis) untersucht. Die Studie zeigt, dass die reichste Gruppe der Bevölkerung mehr als die ärmste Gruppe von den öffentlichen Bildungsausgaben in Nigeria profitiert. Die Studie zeigt auch, dass die Bildungsausgaben in Nigeria progressiv in relativer Hinsicht sind, wobei jedoch die Bildungsausgaben im Primärbereich progressiver als jene im Sekundärbereich verlaufen. Allerdings sind die Bildungsausgaben regressiv in absoluter Hinsicht, was bedeutet, dass die Bildungsausgaben nicht zufriedenstellend auf die armen Bevölkerungsschichten ausgerichtet werden, also nicht „pro-poor“ erfolgen. Die Studie empfiehlt daher eine neue Politik der Bildungsfinanzierung in Nigeria, die deutlich „pro-poor“ erfolgt, und ein entsprechendes neues System.

Abstract

This study examines the distributional impact of education spending in Nigeria. The study made used of primary and secondary data from Nigeria. The relevant data were analyzed by using complex methods and tools (Graphical Analysis, Benefit Incidence Analysis, and Kakwani Progressivity Index Analysis). The study reveals that the richest group benefits more than the poorest group in public education expenditure in Nigeria and they spend more on their children than the poor. The study also demonstrates that education spending in Nigeria is progressive in relative terms, with education spending on primary education being more progressive than for the secondary schools. However, the spending is regressive in absolute terms, meaning that the spending is not well targeted at the poor, hence is not “pro-poor”. This study therefore recommends a determined “pro-poor” educational financing policy and a related new system in Nigeria.

Key Words: **Progressivity, Education, Spending, Nigeria**

Stichwörter: **Progressivität, Bildung, Ausgaben, Nigeria**

JEL-Classification: I22

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Abbreviations and Acronyms

Acronym	Meaning
CWIQ	Core Welfare Indicator Questionnaire
EAs	Enumeration Areas
EFA	Education for All
FCT	Federal Capital Territory
FME	Federal Ministry of Education
GDP	Gross Domestic Product
IIEP	International Institute for Educational Planning
LGAs	Local Government Areas
MDGs	Millennium Development Goals
NBS	National Bureau of Statistics
NEEDS	National Economic Empowerment and Development Strategies
NERDC	Nigerian Educational Research and Development Council
NISH	National Integrated Survey of Households
NLSS	Nigerian Living Standards Survey
NPE	National Policy on Education
NPEC	National Primary Education Commission
NSTP	National School Transformation Programme
ODI	Overseas Development Institute
PE	Perfect Equality
SPEB	State Primary Education Board
SSA	Sub Saharan Africa
UBE	Universal Basic Education
UBEC	Universal Basic Education Commission
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICEF	United Nations Children's Education Fund
UNU	United Nation University
WIDER	World Institute for Development Economic Research

1.0 INTRODUCTION

1.1 Background Information

Globally, there is wide recognition of the importance of education in socioeconomic development of countries in general and those in the developing world in particular. A major concern that has emerged over the last decade has been the need to ensure that children are given the requisite opportunity to access basic education in their respective communities (Sackey, 2007). Because they constitute the future human capital of the society and therefore have potential to exert significant impact on the growth and development of the economy, Children's full participation in basic education is a *sine qua non* for societal progress. As economic systems have become more global in scope and the information and skills required to participate fully in them have become more complex, the scope of imparting skills necessary and sufficient for the populace to participate fully in socioeconomic development has also widened. The growing evidence on the role of human capital in the development process has made social sector investment an important component of national strategies for sustained growth and development. One of such investments is investment in education sector. However, according to World Bank's World Development Report (2000/2001), the link between successful poverty reduction and social spending is not primarily a function of the percent of Gross Domestic product (GDP) that is devoted to total spending on education, but depends foremost on the intra-sectoral allocation of education spending in favour of the primary sectors. The report says that extra expenditures on social sectors will have little antipoverty impact if the intra-sectoral allocation means that the poor do not get much of a share. Equity concerns arise in the finance of education services partly because it is commonly assumed that finance equity may be related to equity in access to services which may be related to equity in education capabilities. Therefore, how the expenditure to education sector is allocated to the different groups in the society can determine its impact in reducing poverty. Moreover, the knowledge of distributional impact of this spending on the poor is necessary if the poor is to be lifted out of poverty. This study therefore examines the distributional impact of education spending in Nigeria. It also tested the progressivity of this spending on school enrolment in primary and secondary schools in Nigeria.

This study is relevant in Nigeria now than ever before. Nigeria, like the rest of the developing nations is undergoing fundamental social, economic and political reforms. In

Education, the impetus for these reforms derives from the commitment to the implementation of international protocols such as Education for All (EFA), the United Nations' Millennium Development Goals (MDGs) as well as the National Economic Empowerment and Development Strategies (NEEDS) and the 7- Point Agenda of this administration. These are challenges that have enormous implications on the education system. The study on progressivity of spending is relevant in facing these challenges because the study will demonstrate the central role the education funding will play in achieving some of these goals.

In addition, the on-going education sector reform has resulted in the evolution of new policies, initiatives and strategies required to put Nigerian education system on the desired pedestal of efficiency and functionality to meet the challenges of carrying Nigeria country to the threshold of one of the top economies of the world by the year 2020. However, according to Nigerian Minister for Education there are some policy gaps and implementation backlog that need to be addressed (FME, 2009). These can be handled by analytical information of education in Nigeria which a study of this type can provide.

At the E-9 Education Ministers Review Meeting held in Bali, Indonesia in April 2008[2] it was revealed that Nigeria was one of only two countries that were at risk of not meeting the targets of EFA (Egwu, 2009). There is therefore need for concerted efforts from the part of researchers on education, education planners and government. However, for education planners and government to be effective in the formulation and implementation of education policies, they require scientific information on economics of education which is limited in Nigeria. This study will fill this vacuum of lack of scientific information on the distributional impacts of educational efforts and spending in Nigeria.

[2] The E-9 Initiative is an unprecedented education drive launched by the heads of state or government of Bangladesh, Brazil, China, Egypt, India, Indonesia, Mexico, Nigeria and Pakistan. 'E' stands for education and '9' for nine countries. The Initiative took off in New Delhi, India, in 1993 on the occasion of the Education for All Summit of Nine High-Population Countries. The nine countries committed themselves to achieve concrete progress in basic education and reduce population growth rates within a limited time frame. The E-9 countries represent half the world's population (some 3.2 billion people). More than 40 per cent of the world's out-of-school children and 70 per cent of the world's illiterate adults live in the nine countries. Any educational advances made in these countries therefore have an immediate effect on the world education picture (UNESCO, 2008).

Moreover, In the interest of economic and social progress, the use of public resources must emphasize efficiency and equity. The efficient management of these resources is critical to growth, to human capital formation, and to the welfare of the poor. Public expenditures offer significant opportunities for promoting growth and the equitable distribution of its fruits (Mainardi, 2007). The issue of equity in distribution of economic benefits from public investment in human capital development is critical in Nigeria because of pervasive poverty (more than 54% of population have been officially reported to be poor) and high inequality (income inequality, education access inequality, health access inequality etc). In Nigeria, accompanying economic growth that was experienced in 80s and 90s was serious income inequality, disparity in access to basic education and health, which are believed to have widened substantially (Oyekale, et al, 2006). All these make the study on distributional effect of public spending on education not only timely but also essential for economic development of Nigeria.

1.2 History of Public Finance of Education in Nigeria

Several of the issues in the financing of education in Nigeria are embedded in the virtually endemic problems of fiscal federalism – in particular, the so called vertical and horizontal fiscal imbalances. The first of these deals with the balance between financial responsibilities and financial resources at each level of government: Federal (or central), state and local. The second deals with equity across the subunits of each specific level of government such as state or local governments. In Nigeria since independence, the search for appropriate mechanisms and formulas for minimizing each set of balances has been particularly problematic. For instance, between 1960 and 1999, seventeen changes were made to the constitution in attempts to resolve these issues (Hinchliffe, 2002). Education figures centrally in these debates for several reasons. First, primary school enrolments are part of the allocation formula for distributing centrally collected revenues across states. Second, the education sector typically consumes a significant share of state and local government resources. And the third, the financial responsibility for primary education across levels of government has never been fully resolved. Over the past twenty years in particular, the sources and modalities for funding this level of education have undergone signification changes. While much attention in the past forty years in Nigeria has been given in the area of horizontal imbalances (particularly between states), less has focused on whether the

revenue allocation arrangements are sufficient to minimize vertical imbalances and to allow each level of government to perform the responsibilities allocated to it. In the education sector - in spite of some overlaps - the major financial responsibility of each separate level lies with a different tier of government (UNESCO, 2000; World Bank 2001).

The 36 state governments Federal Capital Territory and 774 local governments require substantial revenues to carry out their constitutional responsibilities for education and other services. Distributions of centrally acquired revenues are of two types:

(a) between the federal government, all state governments and all local governments

(b) across state governments and across local governments.

The allocations are made from Federation Account and from centrally collected value added tax receipts. The sources of the Account are the receipts from all the major taxes and duties on petroleum profits, imports and exports. Initially, 55 percent of the total revenue were retained by the Federal Government, 32.5 percent allocated to the state governments and 10 percent to the local governments, with the remaining 2.5 percent allocated on separate criteria. These shares have slightly changed over time[3]. The state's overall allocation is then divided between them mainly on the basis of equal shares and population, and the remainder according to indicators such as primary school enrolments and fiscal effort (amount of taxes collected). Allocations between local governments are made on a broadly similar basis.

In the public education sector, no single tier of government has absolute responsibility, and for each sub-sector, there are varying degrees of overlap. Since 1979, University education has been assigned to both federal and state governments. Other areas of tertiary education such as polytechnics and teacher training colleges are also managed and financed by both of these tiers of government. All of secondary education is managed and financed by the state governments apart from the 96 Federal Government Colleges (Unity schools and Federal technical colleges) which are spread across the country.

In general, the financing and management processes for secondary and tertiary education have been stable. This has not been the case for primary schooling. Over the past

[3] The current allocation formula allocates 52.68%, 26.72% and 20.60% to federal, state and local government level respectively (Aderinokun, 2008).

two decades, many changes have occurred. The guidelines for local government reform in 1976 included primary education among those activities which should be regarded as local government responsibilities, although state governments may also perform part or whole of these functions if local governments are not equipped to perform them initially. In the constitutions of 1979, the role of local governments in the provision and maintenance of primary education was further emphasized. The response of the Federal Government in 1988 was to establish the National Primary Education Commission (NPEC) to coordinate and supervise the development of primary education across the country, and to contribute 65% of the estimated total cost of primary school teachers' salaries. The intention was that the local governments would contribute a further 20 % with the state governments providing the rest. At the same time, the Federal Governments share of the Federation Account was reduced from 55 to 50 % and that of local government raised from 10 % to 15 %. In 1991, full responsibilities for primary schooling was transferred to the local governments and their share of the Federation Account was increased to 20 % and that of the states reduced to 25 %, NPEC was abolished and federal financial support withdrawn. This led to even greater uncertainty and the situation deteriorated further. In 1993, another system was established (Francis, 1998), NPEC was re-established and the actual cost of teacher salaries began to be deducted as source from the Federation Account allocation to each local government (Hinchliffe, 2002).

1.3 Government Educational Expenditures in Nigeria

According to Hinchliffe (2002), the lack of knowledge of government educational expenditure in Nigeria is not a recent phenomenon. The last detailed and comprehensive effort to describe the situation was made in 1965 (Callaway and Musone, 1965). Among the findings by Callaway and Musone (in 1965) were the following ones:

(a) Total expenditures on education by all government combined were equal to 3.5% of GDP and 15.2% of total government expenditure and that
(b) 50% of total public expenditures on education were allocated to primary, 31% to secondary and 19% to tertiary, including for overseas study.

This set of information was updated for 1966 but since then very few and only very partial estimates have been made. An attempt to calculate the cost of primary schooling was made in 1982 but using enrolment data and only a single estimate of unit cost (Federal Republic of Nigeria, 1982) was used. For 1985, education expenditures were

survey across 15 state governments (Hinchliffe, 1989). The results demonstrated large regional variations. While the share of education expenditure in total state government expenditure averaged 40%, ranging between 23 and 57%, for seven Northern States the share averaged 32% and for eight southern, 47%. In 1987, evidence was collected from eleven states on the financing arrangement for primary schooling (Federal Republic of Nigeria, 1987). The results showed enormous differences between states in the way in which local governments, state governments and parents were involved. In 1992, case studies of expenditure in just three states were undertaken by the World Bank (World Bank, 1994). In Kano, the share of education in total state government expenditure had fallen from 32% in 1987 to 21% in 1991, partly though not only, as a result of virtually all of the cost of primary education being moved to local authorities in the latter year. In plateau state, in 1991, educational expenditure was around 16-17% of the total government expenditures and falling. In Imo state, the share for education in that year was 31.5% and rising. Overall, the case studies again demonstrated significant divergences across states in expenditure levels and distributions.

Since 1991, revenues of the local governments have been the main source of funding for primary education. Almost all of the income of these governments is derived from their statutory share of the Federation Account. For an individual local government the income is based first on the overall (vertical) share for local governments and then on the (horizontal) principles of allocation between local governments. For each local government, sufficient funds to pay all of the primary school teachers within their boundaries are first subtracted from their allocation before the remainder is distributed to them. These subtracted funds have been placed with each State Primary Education Board (SPEB) through the Universal Basic Education Commission (UBEC). Very few local governments allocate additional recurrent funds to education, though some make capital expenditures (Hinchliffe, 2002).

1.4 Expenditure Pattern in Education in Nigeria

Federal government's expenditures on education are below 10% of its overall expenditures. Table 1 presents these shares and separately for capital and recurrent expenditure. Overall, education expenditure as the shares of total Federal government expenditure have varied between 1.08 and 9.97% and the trend has been largely downward as indicated in Appendix 1. The Appendix also shows that the share of education expenditure to GDP varies from 0.60 and 4.52%. Typically, between 70 and 80% of

education expenditures are for recurrent activities, in which teachers' salaries and emoluments are predominant. However, Hinchliffe (2002) had pointed out, the estimate in the Table 1 and Annex 1, did not give the full picture of education expenditure in Nigeria. To have the full expenditure there is need to adjust the expenditures in Table 1 and Appendix 1 by 30%. Other sources of funding from local government and state government were not taken to account in Table 1 and Annex Table 1. According to Hinchliffe (2002) these other sources of funding constitute about 30% of total federal government expenditure on education.

Table 1: Structure of Public Education Spending in Nigeria (1980-2006)

Education expenditure	Value
Average Current Education expenditure	N24.26 billion
Average Capital Education Expenditure	N 7.35 billion
Average Total Education Expenditure	N 31.61 billion
Average Education Expenditure as % of GDP	1.32%
Average Education Expenditure as % of Total Government Revenue	4.35%
Average Education Expenditure as % of Total Oil Revenue	5.98%

Source: Author's Computation based on Central Bank of Nigeria Statistical Bulletin, 2008.

As described previously, while each tier of education has at various times been the concurrent (joint) responsibility of both Federal and State governments, the former has historically been much more involved at the post secondary level. Table 2 presents the share of Federal government recurrent and capital expenditures by levels of education between 1996 and 2002. Overall, during the whole period, the tertiary education subsector has received between 68 and 80% of the total federal expenditures for education. Generally, allocation to secondary education is more than that of primary education. The average shares have been 14.5% for secondary schooling and 11.5% for primary schooling. Federal government expenditure on secondary schooling are basically for the federal government colleges (unity schools), usually three of which are established in each state and the 16 federal secondary technical colleges. Allocations for primary schooling have been more ad hoc resulting from specific initiatives. Most have been for the construction of three classroom blocks and classroom renovations in each local government authority.

Table 2: Federal Government Expenditure share by level of education (%)

Education	1996	1997	1998	1999	2000	2001	2002
Universities	52.5	44.6	39.4	39.9	49.2	39.6	51.2
Polytechnics	16.2	23.2	17.0	18.5	17.0	16.6	16.0
Colleges of Education	11.2	11.1	12.0	10.6	9.6	11.9	9.7
Tertiary	79.9	78.8	68.4	69.0	75.8	68.1	76.9
Secondary	10.4	11.3	14.6	18.7	15.3	15.5	15.6
Primary	9.7	9.8	16.9	12.2	8.9	16.4	7.5

Source: Olaniyi and Adam (2003): pp. 24

The combined recurrent and capital development expenditures of all state government total around only one fifth of those made by the Federal government (Hincliffe, 2002). The revenues of state governments are dominated by the allocation from the Federation account plus receipts from the centrally collected value added tax. Internally generated revenues are between 20 and 25%. State governments in practice; fund most of the secondary education and often a significant part of post secondary education, in addition to relatively small amounts for primary schooling. The share of total state government expenditure devoted to education indicated a mean share of about 18 % and downward trend (as indicated in Table 3). On the average around two thirds of all state governments expenditures on education are for secondary schooling, while the average for primary schooling is around 11% as shown in Table 4.

Table 3: Education Expenditure as Percentage of Total State Government Expenditure (%).

Year	Expenditure (%)
1995	20.1
1996	17.3
1997	23.0
1998	19.2
1999	18.0

Source: Hinchliffe (2002): pp. 16

Table 4: Shares of State Government Expenditure by Educational Level.

Education level	%
Primary	11.4
Secondary	60.4
Tertiary	20.8
University	7.4
Total	100

Source: Hinchliffe (2002): pp. 20

Local governments essentially fund salaries of primary school teachers. In 1999, the deduction at source[4] made for primary education from the local government's allocation of the Federal Account and allocated to NPEC for onward transmission to the SPEBs totalled ₦25, 422 million or 42% of total local government revenue (Hinchliffe, 2002). Aggregating all 774 local governments, the share ranges from 20 to 95%, implying enormous difference in the burden between local government and states resulting from this single responsibility. As a result of large increases in salaries by 2000, by the end of 2001, several local government were receiving no payment from the federation account as the deduction for teachers' salaries equal or were greater than their allocations(for example, see Table 5). In addition to the funding of primary school teachers' salaries, some local governments have also been funding capital expenditures. Obviously, capital expenditures on primary education are not regarded as a priority by local governments. As a share of overall capital expenditure, they ranged between 5.2 and 7.8% and as a share of all local government expenditure the range was between 1.7 and 2.7%. Finally, as a share of total local government spending on education, capital expenditures were just 4.5% (Hinchliffe, 2002).

[4] All tiers of government in Nigeria collect their share of fund from federally collected revenue. The fund for primary school teachers' salaries are deducted from the share of money that are meant to the local government and are paid by the Federal government to the teachers.

Table 5: Primary School Teachers' Salaries Deduction as a Share of the Local Government's Statutory Allocation in Selected States (1999)

State	% Share
Borno	70.6
Oyo	71.9
Rivers	29.5
Kano	39.3
Enugu	68.2
Benue	36.8
Ekiti	53.0
Jigawa	16.8

Source: Hinchliffe (2002): pp. 32

Combining all sets of expenditures on education as a share of total government expenditure (Federal, State, Local) in Nigeria in 1998 was approximately 14.2% of overall education expenditure[5], 37.1% was contributed by the Federal Government, 36.9% by state governments, and 26.0% by the local governments. These data can be used to calculate the relative shares of each tier of government in the funding of each level of education.

UNESCO's World Education Report 2000 presents the data for 19 countries across Sub-Saharan Africa (SSA) for 1996. The average share of education expenditure on G.D.P was 4.7% and of government expenditure was 19.6%. In both cases, the measures of educational expenditure for Nigeria (2.3% and 14.3% respectively) are relatively low. The shares of expenditure across levels of education are also presented in Table 6. The table shows that the allocation to primary education in Nigeria declined from 50 to 35.6%, the allocation is still lower when you compared with the average of 48% for Sub Sahara Africa (SSA). The tertiary allocation of about 35% is also significantly higher than the average of about 21% for Sub Sahara Africa.

[5] Higher than about 10% that was indicated in Table 1 and Annex Table 1.

Table 6: Total Government Expenditure to Tiers of Education in Nigeria in Comparison with SSA (%)

Sector	1962	2002	Sub Saharan Africa (SSA)
Primary	50	35.6	48
Secondary	31	29.1	31
Tertiary	19	35.3	21
Total	100	100	100

Source: Hinchliffe (2002): pp. 17

The average unit of cost of public primary education in Nigeria in 1998 was ₦1600 (government recurrent expenditure). This varies from state to state, for example it was ₦ 677 for Jigawa state and ₦ 2102 for Enugu state. For secondary schooling, the average was ₦ 3080; this can be as low as ₦ 1333 for Oyo state and can be as high as ₦ 3809 for Rivers state. According to Hincliffe (2002), the ratios of public unit cost for primary, secondary, tertiary and University in Nigeria are roughly 1:2:13:15. The unit costs are all very low when compared to those in most other low income countries, particularly in SSA (UNESCO, 2000).

There are important facts that emerged from the above discussions that are relevant to the progressivity of education spending Nigeria. The average government expenditure on education in Nigeria is low and lower than the average for SSA. Similarly, there is low emphasis on primary education. The expenditure education's allocation to primary school declined from 50% of total spending on education to about 36% (compared with 48% for SSA)[6]. In addition to that, the ratio of capital expenditure to recurrent expenditure is very low at every tier of the government being less that 25% by the federal government, less than 20 % by state government and less than 5% by the local government. The consequence of this is that the school infrastructures will not be provided, which may reduce the schooling quality and academic performance. For instance, about 71% of students in primary and secondary schools claim that there were no new building construction in their school in the past five years, while and 61% of the students claim that there were no rehabilitation in their schools in the past five years (Alabi, 2008; CWIQ, 2006). The fact that the per capita education expenditure

[6] The ratio of per capita expenditure on education in primary school and university in Nigeria is 1 to 15 in favour of university education.

is low is glaring when the per capita education expenditure in Nigeria is compared with the world average and Sub Sahara Africa as presented in Table 7. The average amount of money spent on basic education (primary and secondary schools) in the world and Sub Sahara Africa were 999 and 190 US dollars respectively, while the amount for Nigeria was 29 US dollars[7]. The implication of this is that individuals have to bear a large proportion of the education funding if their children are to access basic education. Samuel (2002) has shown that households in Nigeria pay more for education than what the government expends per child. He indicated that in a World Bank study (World Bank, 2001) on public expenditure on education in Nigeria, the household unit cost of primary and secondary education was ₦33,000 and ₦ 42,000 respectively, while the public unit cost was below ₦ 3000 for primary and ₦ 2000 for secondary. The alternative scenario is that the individuals that may not be able to pay out of pocket the necessary expenses will be left out of the educational opportunities. The general consequence of this is low enrolment in the schools. The UNICEF evidence has confirmed low enrolment in Nigerian schools. It reported in 2008 that more than 10 million Nigerian children are out of school (Punch, 2008). Out of the 10 million, 4.7 million and 5.3 million are of primary and secondary school age respectively[8]. The report says further that sixty-two per cent of the children out of school are girls. This is one of the reasons for UNICEF to make Nigeria one of the priority countries for girls' education (Huebler, 2005).

Table 7: Average Per capita Public Expenditure in Education in 1998 in US Dollars

	Basic Education	University Education
World	999	3655
Developed Countries	4992	6437
Sub Sahara Africa	190	1611

[7] The most current estimate suggests that the per capita education expenditure in Nigeria can be lower than 29 US dollars. For instance, Imahe and Alabi (2005) have shown that per capita government education expenditure in Nigeria in 2002 was ₦575 ($4).

[8] More than 22 million children are 6 to 11 years old in Nigeria, the official primary school age in Nigeria (Huebler, 2005). The official secondary school age in Nigeria is 12 to 17 years

Nigeria	29	286

Sources: World Education Report (2000): pp. 112; Hartnett (2000): pp. 23; Hinchliffe (2002): pp. 34

1.5 Private Cost of Education and Household Expenditure in Nigeria

Not all school going children are enrolled in government schools. Private sector for primary and secondary schooling appears to be growing. In 1995, Private enrolments in primary schooling were 4% of the total and in 1999, 5%. In secondary schools, however, private enrolments increased from 7% to 25% of the total. Alabi (2008) indicated that in 2004 only 8.8% of children that are in primary and secondary schools in Nigeria attend private schools[9]. The reason for the smaller role being that private schools are more expensive than public schools[10] as indicated in Table 8.

Most of the papers on education expenditure in Nigeria focused on government expenditure. However, education is rarely a (financially) costless activity to the student or household. The data on expenditure presented in Table 8 covers only fees and charges in primary and secondary schools. This forms a large share of household expenditure in schooling (about 40%)[11]. The table 8 indicates that the charges in primary school are lower than secondary school. Alabi (2008) has shown that the average cost of primary education borne by the parents is N16647 ($139) per pupil per year. This is about 18% of per capita annual income during the period. The fact that this is too high is evident when we compare it with the fact that the private cost of basic education in Ghana is only 3% of per capita income (Sackey, 2007). The private cost of education

[9] Private schools are schools owned and run by private individual, firms and religious organization. They are run side by side with public schools. Most of the children in these schools are children form rich households.

[10] There is an argument that private schools may be of better quality than public schools. That has not being proved in Nigeria as some of the owners of these schools established them for profit making purposes, especially private secondary schools. Generally, the quality of education in Nigeria is low as summed by Onyidoh (2009). He summarizes the decline in quality of education in Nigeria pragmatically, when he says that around the 1970s, the quality of Nigerian education was the pride of the black race, the envy of many developing and developed nations of the world. However, after about three decades of systematic mismanagement by both military and civilian rulers, the Nigerian education has so plummeted that what we have today is a mere shadow of its past glory. It has been said that the criteria for assessing any educational system are: the curriculum of study, the state of infrastructural facilities, the quality of students, the quality and quantity of staff, the competence of leadership, the level of funding and the direction and consistency of policy. All these are in bad shape in Nigeria' (Onyidoh, 2009: 1).

[11] Annex Table 2 presents other cost components of education in Nigeria.

in public schools in Nigeria is high because the cost-bearing by government is low. This type of funding structure may not only prevent children from poor homes from attending schools, it may also worsen income inequality (where poor group bears more than disproportionate share of their income).

Table 8: Annual Fees and Charges in Primary and Secondary Schools in Selected States in Nigeria (2002) (Naira)

School	State					
	Ekiti	Enugu	Borno	Rivers	Benue	Average
Public Primary	500	455	120	625	115	363
Public Secondary	2150	1660	175	1430	290	1141
Private Primary	14600	3735	4500	4500	12000	7867
Private Secondary	26600	22500	18300	18300	39750	25090

Source: Hinchliffe (2002): pp. 43

1. 6 Organisation of the Paper.

After section one, which is the introduction to the paper based on the history of education, education pattern and expenditure in Nigeria, the rest of the paper is structured into five sections. Section two lays the theoretical foundation of the paper, section three reviews the relevant literature, section four deals with the methodology employed in carrying out the study. Section five presents and discusses the major findings in the paper, while section six concludes the paper with policy recommendations.

2.0 Theoretical Framework

Benefit incidence analysis (BIA) is better understood in relation to the concepts of targeting and progressivity of social spending[12]. Targeting is a tool used to select eli-

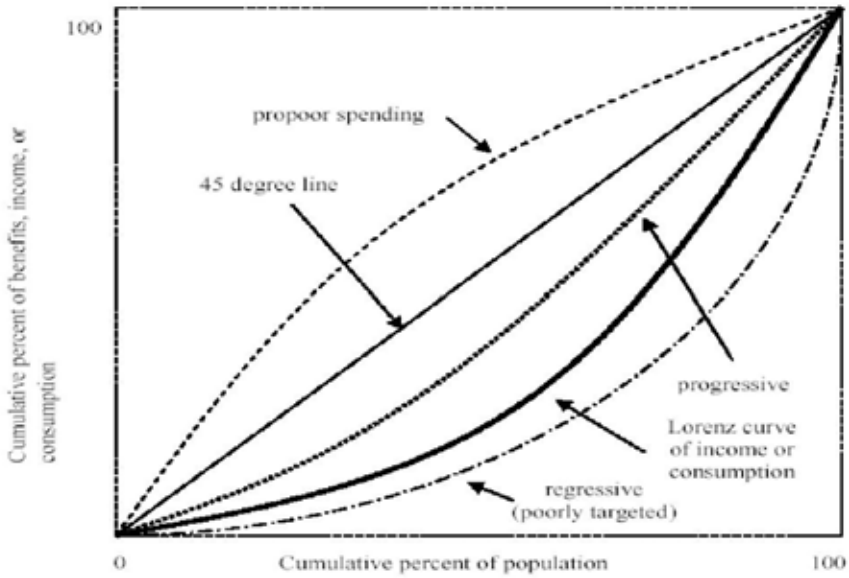
[12] Since expenditures on education are expected to have a redistributive impact, BIA is centered on assessing whether public spending is progressive, that is, whether it improves the distribution of welfare, proxied by household income or expenditure (Cuenca, 2008). Likewise, BIA shows how the initial "pre-intervention" position of individuals is altered by public spending or how well public spending serves to redistribute resources to the poor (Van de Walle, 1995).

gible beneficiaries of any government intervention. In principle, it should concentrate the benefits of social assistance programs to the poorest segments of the population. All targeting mechanisms share a common objective: to correctly identify which households or individuals are poor and which are not. Targeting is a means of increasing the efficiency of the program by increasing the benefits that the poor can get with a fixed program budget (Coady et al, 2004). Conversely, it is a means that will allow the government to reduce the budget requirement of the program while still delivering the same level of benefits to the poor. One way to assess the targeting of government subsidies is with reference to the graphical representation of the distribution of benefits, i.e., concentration curve or benefit concentration curve. A concentration curve is generated by plotting the cumulative distribution of "benefits" of public spending on the y-axis against the cumulative distribution of population sorted by per capita income on the x-axis. One can assess the progressivity or regressivity[13] of a public subsidy by comparing the benefit concentration curve with the 45-degree diagonal and the Lorenz curve of income/ consumption[14]. The diagonal indicates neutrality in the distribution of benefits. If the distribution of benefits lies along this line, the poorest 10 percent of the population gets 10 percent of the subsidy (could be income or consumption); poorest 20 percent account for 20 percent of the expenditure; and so on. Thus, the diagonal reflects perfect equality in the distribution of benefits and it is also referred to as perfect equality (PE) line. The distribution of benefits is said to be progressive if the lower income groups receive a larger share of the benefits from government spending than the richer income groups. For instance, if the concentration curve lies above the diagonal, then the poorest 10% of the population receives more than 10% of the benefits and the distribution of benefits is said to be progressive in absolute terms (Figure 1). Conversely, if the benefit concentration curve lies below the diagonal, then the poorest 10% of the population captures less than 10% of the benefits and the distribution of benefits is said to be regressive in absolute terms.

[13] Progressivity implies a preference for lower income groups while regressivity implies a more favorable treatment of higher income groups.

[14] Lorenz curve is a graphical depiction of the cumulative distribution of income on the y-axis against the cumulative distribution of population on the x-axis.

Figure 1: Lorenz and Concentration Curves



Source: Cuenca (2008)

On the other hand, a benefit concentration curve that lies above the Lorenz curve of income signifies progressivity of public subsidy relative to income[15]. To wit, the benefits share of the poorest 10% of the population is larger than its income share. Thus, if the benefits from the government service are converted to its income equivalent, the post-subsidy distribution of income-cum-benefit would be more equitable than the original distribution of income if the benefit concentration curve lies above the Lorenz curve of income. Conversely, a concentration curve that lies below the Lorenz curve of income distribution suggests transfers that are more regressively distributed than income. The concentration coefficient (index), also called Suits index, is the most common summary measure of benefit incidence. It is estimated in like manner as Gini coefficient but it is based on concentration curve instead of the Lorenz curve

[15] However, unlike the Lorenz curve, which shows the cumulative proportion of income earned by the cumulative population, a concentration curve can lie above the diagonal: The poorest 40 percent of the population cannot earn more than 40 percent of income, but they can get more than 40 percent of spending on social grants. Concentration curves that lie below the Lorenz curve are classified as regressive. The concentration coefficient estimates the inequalities in the distribution of government expenditures and is calculated in same way as the GINI coefficient. The only difference is that the concentration coefficient is calculated by keeping the income group the same. The concentration coefficient can lie in range of -1 and 1 while the GINI coefficient lies between 0 and 1. If the concentration coefficient is lower than the GINI coefficient, it shows that expenditures are more evenly distributed than income and vice versa (Hakro and Akram, 2007).

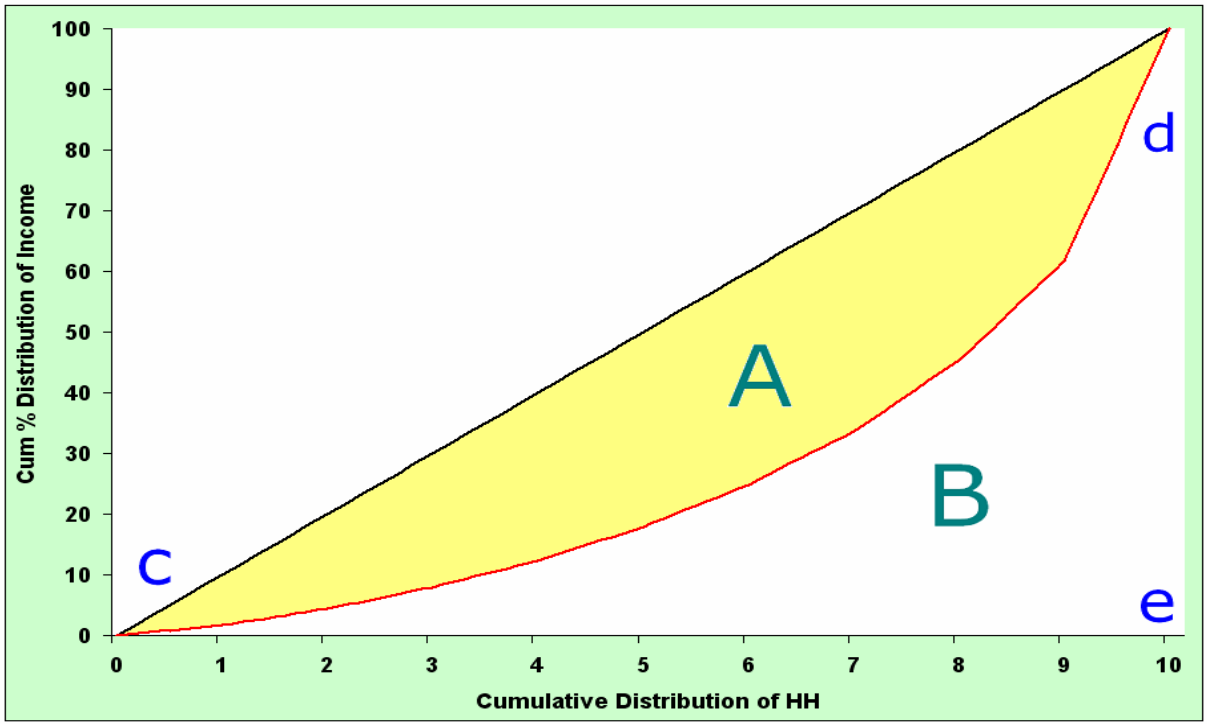
(Cuenca, 2008). While Gini coefficient is computed as the ratio of the area between the diagonal and the Lorenz curve (represented by A) to the total area below the diagonal (i.e., triangle c.d.e or Area B in Figure 2)**,** the concentration coefficient is the ratio of the area bounded by the diagonal and the concentration curve to the total area below the diagonal (Figure 2).

If the distribution of benefits is progressive in absolute terms, the Suits index is negative[16]. Conversely, if the distribution of benefits is regressive in absolute terms, then the Suits index is positive. On the other hand, if the Suits index is algebraically smaller than the Gini coefficient, then the distribution of benefits is said to be progressive relative to the distribution of income[17].

[16] The Suits Index, developed by Daniel Suits in the 1970s, calculates a single number that measures tax progressivity. The approach basically compares the cumulative share of income received by taxpayers, ordered from lowest to highest, to their cumulative share of taxes paid. For a progressive (regressive) tax, the share of taxes paid will tend to be less (more) than the share of income as we move up the income spectrum. The Suits Index is a number ranging between –1 and +1. A negative Suits Index means that the tax is regressive while a positive index indicates a progressive tax (with a value of zero for a proportional tax). A theoretical tax where the richest person pays all the tax has a Suits index of 1, and a tax where the poorest person pays everything has a Suits index of -1. The Suits Index can be used to compare the degree of progressivity of different tax types as well as determine whether a tax becomes more or less progressive over time. Similar to the Gini Coefficient, the Suits index is calculated by comparing the area under the Lorenz curve to the area under a proportional line. While a Gini coefficient of zero means that all persons receive the same income or benefit as a per capita value, a Suits index of zero means that each person pays the same tax as a percentage of income (Suits, 1977).

[17] The absolute progressivity compares the distribution of benefit (concentration curve of benefit) with regard to line of perfect equality (PE), while relative progressivity compares the distribution of benefit (concentration curve of benefit) with regard to Lorenz curve of income. So we can have absolute and relative regressivity. In the case of absolute regressivity, the distribution of benefit (concentration curve of benefit) lies below the line of perfect equality (PE), while in the case of relative regressivity, the distribution of benefit (concentration curve of benefit) lies below the Lorenz curve of income.

Figure 2: GINI Measure of Inequality



Source: Cuenca (2008)

3.0 Literature Review of Progressivity of Government Spending

A vast body of literature exists on the incidence of government expenditures. Most of the studies have used the benefit incidence approach on household data. Findings demonstrate that public expenditures are either progressive or regressive and the share of different income groups varies depending on the distribution of the benefits of the public expenditures across region, caste, religions, gender etc (Hakro and Akram, 2007). The studies which demonstrate progressiveness such as Rasmus *et al* (2001) focus on the incidence of the public expenditure on education and health (Mozambique data). Their result indicates that the poorest quintile of income groups receives 14 percent of total education spending; the poorest half receives 36 percent, and the richest quintile receives 33 percent. Hyun (2006) by using household data from Thailand concluded that government subsidies (in-kind transfer income) benefit the poor and can reduce poverty. With a data set from Ecuador, Younger (1999) used a combination of benefit and behavioural approaches and found that public spending improves health and education indicators in developing countries.

Cross country studies such as Gupta et al (2002) used 56 data sets (developing countries) and showed that the increase in public expenditures on education is associated

with improvement in both access to and enrolment in schools. Other studies that determine the regressiveness of the incidence of public expenditure such as Norman (1985) concluded that many government expenditures on education and health benefit upper income more than the lower income groups. Hamid *et al* (2003) has also shown evidence of substantial cross-country heterogeneity. The subsidies in education can be progressive or regressive; normally these subsidies are progressive at the lower levels of education and regressive at higher levels. Demery and Verghis (1994), using a data set from Kenya, concluded that primary education spending was strongly progressive in absolute as well as in relative terms while secondary and university education spending were regressive in absolute terms, and weakly progressive relative to income.

In a review of evidence from benefit incidence of public spending in developing countries (Chu et al. 2000), covering 55 such studies. Killick (2002) highlights some important findings in his study. In the majority of cases, overall public spending in each of the areas of education, health and transfer payments was found to be progressive, but it was often poorly targeted, most often in sub-Saharan Africa.

Targeting was poorest in transition countries and sub-Saharan Africa, the latter fact is consistent with the findings reported by Castro-Leal et al. (2000), who survey several African countries. How progressive and well-targeted education spending is also depends on the level under consideration. Thus primary education is everywhere progressive and well targeted in many instances, although again the record of targeting is less good in Africa, even at primary level (as also reported by Castro-Leal et al. 2000). This poor targeting becomes more apparent once allowance is made for the fact that poorer groups often have more school-aged children, something many benefit incidence studies do not do. Of course this reflects differences in enrolment rates according to the income group. As a consequence of this, spending on secondary education in Africa is still less well targeted to the poor. However, in Asia and Latin America spending on secondary education is quite well targeted (Killick, 2002); this is partly a consequence of the higher overall level of secondary enrolment in these regions. It is clear that measures to raise enrolment rates among the poor are essential in Africa. However, quality is also a key factor here, with recent evidence suggesting that this is better for richer groups (World Bank 2000) – this is likely to be part of the explanation for differential enrolment rates, and so poorly targeted education spend-

ing. Finally, in the vast majority of countries the direct benefits of spending in higher education accrue predominantly to those in the richest groups; again patterns of enrolment lie behind this. As might be expected, public spending on transfers is more likely to benefit poorer groups disproportionately where measures are designed to build targeting into their delivery (such as food stamps in Jamaica; Grosh 1995a and 1995b). Otherwise they are often not well targeted, even if progressive (Chu et al. 2000).

In the case of the Philippines, Cuenca (2008) presented graphically the benefit incidence of the 1998 public spending on education using deciles based on households. It can be gleaned from her study that government spending on elementary and secondary education is progressive in absolute terms as the concentration curves lie above the diagonal (or PE line). This can be attributed to the fact that (i) richer households prefer private schooling over public schooling; and (ii) households in the poorer deciles have more children than those in the richer deciles. Government spending on college education, on the one hand, is regressive in absolute terms as indicated by the fact that its concentration curve lies below the diagonal.

The results on the incidence of expenditures at different levels of education in Pakistan are presented by Hakro and Akram (2007). According to them, Government expenditures in Pakistan overall, provincial and regional levels and at all levels of education (primary, secondary, higher and professional education) is progressive, however, the expenditure in rural Baluchistan is regressive, and largely unequal as well. According to them, all the Gini coefficients are higher than the concentration coefficient[18], which implies that expenditures are more evenly distributed than income. In primary education, the share of the poorest 20 percent of the population ranges from 17 to 20 percent while the share of the wealthiest 20 percent of people ranges from 19 to 23 percent in Pakistan. In secondary education, the income-wise comparisons show that the share of the lowest quintile in secondary education expenditure is 16.34 percent while the share of the highest quintile is 21.80 percent in Pakistan. Demery (2003) indicated that the concentration index for South Africa for all levels of education was -0.023, which was below the mean of 0.01 for all the 25 developing countries for which data was available, indicating that South Africa education's spending was better targeted

[18] If the concentration coefficient is lower than the GINI coefficient it shows that expenditures are more evenly distributed than income and vice versa.

than most countries, despite the fact that the university education in South Africa was poorly targeted.

4.0 Research Methodology

4.1 Data Sources and Collection

The data for this study is generated from Nigeria. Nigeria lies between $4^{0}16^{1}$ and $13^{0}53^{1}$ North Latitude and between $2^{0}40^{1}$ and $14^{0}41^{1}$ East Longitude. It is located in the West Africa bordered on the West by the Republic of Benin, on the north by the Republic of Niger and on the east by the Republic of Cameroon. To the South, Nigeria is bordered by approximately 800 kilometers of the Atlantic Ocean, stretching from Badagry in the West to the Rio del Rey in the east. The country also occupies a land area of 923,768 kilometers and the vegetation ranges from mangrove forest on the coast to desert in the far north. Administration-wise, Nigeria consists of 36 states and a Federal Capital Territory. Each state is further divided into Local Government Areas (LGAs). These are 774 LGAs in the country. Nigeria returned into democratic rule in May 1999 under presidential system of government at federal, state and local government area levels. The federal government comprises of an Executive arm, a bicameral legislative arm and the judiciary. Each state has her own executive arm and house of assembly while each local government has a chairman and a council. The total population of Nigeria according to 2005 census was about 140 million.

The relevant data that are related to income and education were extracted from database obtained from the Nigeria Bureau of Statistics (NBS) Core Welfare Indicator Questionnaire (CWIQ) Survey of 2006. The Surveys were conducted with assistance from European Union, World Bank, Department for International Development and United Nations Development Programme to ensure good quality of the data generation. The surveys had a national coverage, that is, all the 36 states of the Federation including the Federal Capital Territory of Abuja were covered. The sample design for the survey was a two stage stratified sample design. The first stage was the division of each state into clusters called Enumeration Areas (EAs), while the second stage was the division of enumeration areas into housing units. One hundred and twenty (120) EAs were created for each state and 60 EAs for the Federal Capital Territory for the twelve months survey duration. Ten EAs for each state and five EAs for the FCT were covered per month (The survey was conducted through the twelve months period).The Core Welfare Indicator Questionnaire Survey (CWIQ) is designed to collect

household data useful in quantitatively and quantitatively profiling the well-being of the population. The 2006 Nigerian CWIQ was a nationwide sample survey conducted to produce welfare indicators for the population at national and sub-national levels, particularly Zones, States and Senatorial Districts. The Survey complements 2004 Nigerian Living Standards Survey (NLSS) by NBS which profiled poverty in the country. Both surveys succinctly provide information for evidence-based policy actions as well as monitoring and evaluation of poverty alleviation projects along the dictates of the MDGs. CWIQ was conducted using the National Integrated Survey of Households (NISH) design run by the NBS. A representative sample of urban and rural was selected in each of the 36 States and Federal Capital Territory (FCT). A total of 7,740 Enumeration Areas (EAs) were selected with an estimated 77,400 housing units (HU) nationwide. The education information in the surveys are accessibility to schools, educational attainment, adult literacy, primary school and secondary school enrolment, types of school attended(private or public), scholarship award, school drop out and interruption, satisfaction with school, reasons for school dropout and interruption, education expenditure(tuition fees, cost of book, boarding fees, cost of transportation to schools.

The secondary sources of information are Abstract of Statistics from National Bureau of Statistics and Central Bank Statistical Bulletin. Data such as government expenditure on education was obtained from these sources. The summary of data used are provided on state basis in Annex Tables 3, 4 and 5.

4.2 Analytical Techniques

Different analytical methods were employed in this study. They are Benefit incidence analysis and Progressivity indices. They are briefly described in turn.

4.2.1 Benefit Incidence Analysis[19]

The purpose of benefit incidence is to identify who benefits from public spending and how much. The benefit incidence approach measures how much the income of a

[19] Also a main concern in this study is to compare public spending equity at different levels of service provision, viz. the primary and secondary. While experimenting with methodology using data from Ecuador, Younger [1999, p.345] found that for ranking different kinds of public expenditures by their equity impact, the simple benefit incidence method yields similar results to the more sophisticated methods.

household would have to be raised if the household had to pay for the subsidized public services at full cost. The beauty of this approach is that it uses the information on the cost of the publicly provided goods and services, taking into consideration the uses of goods and services by the different income groups and finally finds out the estimates of the distribution of benefits. The individual beneficiaries are grouped by their income level, but they can also be grouped by geographical area, ethnic group, urban and rural location, gender and so on. In analyzing the incidence of public expenditures in education in Nigeria, this grouping is formulated on the basis of income.

In practice, the conduct of incidence analysis generally involves three steps. The steps I took are the following:

1. I obtained the estimates of the unit cost of education expenditure on primary and secondary schooling from public expenditure accounts.

2. I imputed the subsidies to the households identified as user of the service by using information available on use by different income groups. I obtained enrolment rates in public schools across population quintile ordered by income level ranging from poor to rich as reported by different households in the surveys. The improvement I made here to improve the estimation of Benefit Incidence Analysis is to use the net school enrolment in the household instead of gross enrolment[20]. This is because poor families may have more school-aged children than the rich families. According to Castro-Leal et al (2000), the progressivity and targeting estimations will become more apparent once allowance is made for the fact that poorer groups often have more school-aged children. However, sometimes many benefit incidence studies (Cuenca, 2008; Davoodi et al. (2003); Demery, 2003) do not do that, which may lead to the wrong conclusion that education spending is progressive and well targeted, especially in primary schools where poor families have many children.

3. I aggregated households in groups ordered by income and then distributed the benefits among the different groups to arrive at an estimate of the incidence of per capita

[20] Gross enrolment is the total number of children from a particular household that are in the schools, while the net enrolment is the proportion of children of a particular age schools that are in the schools. For example the children aged 6-11 are expected to be in primary schools, while 12-18 years old are expected to be in secondary schools (National Policy on Education, 2004).

subsidies accruing to each group. This is the Benefit Incidence as presented after Tables 9 and 10 in Table 11.

4.2.2 Measurement of the Progressivity Index

Kakwani (1977) defined progressivity in terms of the elasticity of tax function T (x) with respect to income (x). It is derived from the principle of Lorenz curve. Let Lx (P) be Lorenz curve (a graph depicting the variance of the size distribution of income from perfect equality) for prepayment income. Let Lc (P) be the payment concentration curve obtained by plotting the cumulative percentage of the population ranked according to pre-payment income on x-axis, and the cumulative percentage of education payments on the vertical axis. For a proportional education payment system, then the Lx (P) curve and Lc (P) curve must coincide. Progressivity is then measured by departure of Lc (P) from Lx (P). Thus, the Kakwani index of progressivity of education payment on prepayment is:

$$K = L_c(P) - L_x(P) \; or K = 2\int_0^1 L_c(P) - L_x(P)dp$$

For a progressive education payment system K is positive. For a proportional system K is zero and for a regressive system K is negative. K has limits between –2.0 and 1.0. It is –2.0 when all pre-payment income is concentrated in the hand of one individual while the payment burden falls on somebody else. It is 1.0 when pre-payment income is shared equally while the payment burden falls on someone else. It should be noted that the Kakwani Index of Progressivity could also be zero if the Concentration and Lorenz curves were to cross; the negative and positive differences between them cancel. Given this, it is important to use Kakwani Index of Progressivity, or any summary measure of progressivity, as a supplement to, and not a replacement of, the more general graphical analysis (O'Donnelle et al. 2007).

I estimated the progressivity of spending by comparing the Lorenz curve of prepayment income [G] with payment concentration curve[21] [C]. Therefore the progressivity is given as: C - G, Where C is the concentration index for education payment, G is the Gini coefficient of prepayment income. This is twice the area between education

[21] The concentration curve was obtained by plotting the cumulative percentage of the population ranked according to pre-payment income on x-axis, and the cumulative percentage of education payments on the vertical axis.

payment concentration curve and the Lorenz curve. A negative number indicates regressivity and a positive value indicates progressivity. In the case of proportionality, the concentration curve lies on top of the Lorenz curve and the Kakawani Index is zero.

5.0 Results and Discussions

5.1 Results and Discussion of the Benefit Incidence Analysis.

Table 1 presents only the federal Government expenditure on education. However, in order to have an accurate estimate of Benefit incidence of Government expenditure on education, I incorporated all the tiers of Government (federal, state and local Governments) expenditures in education in Table 9. In Table 10, I estimated expenditures allocated to different tiers of education levels in 2004. The information on net enrolments from each income group was combined with public education expenditure as indicated under the research methodology to generate the Benefit Incidence presented in Table 11. The table reveals that the richest group benefit more than the poorest group in public education expenditure in Nigeria. It shows that the children from poorest 20% of the population enjoys about 19% of enrolment in primary and secondary school respectively, while the children from richest 20% of the population enjoys about 21% and 24% enrolment in primary and secondary school respectively. The global averages of school enrolment of the children from the poorest 20% are 26% and 14% in primary and secondary schools respectively. The difference in the estimates may be due to the fact that I used net enrolment instead of gross enrolment in the schools as done in other study (Shahin, 1999).

Table 11 also demonstrates that the children from the poorest 20% of the population benefited of about 6 and 5 billion Naira in primary and secondary schools respectively, while the children from the richest 20% of the population benefited of about 7 billion Naira in primary and secondary schools respectively. This suggests that the richest group benefited more from government expenditure than the poorest group. However, Table 12 indicates that the richest group spent more on their children than the poorest group. The poorest 20% spent about N36000 while the richest 20% spent about N48000 per annum per child. This suggests that the children from richest home may be enjoying quality advantage in their schooling. This is because even among the public schools some are of better quality than the others and hence are more expensive. For instance, Federal government colleges and Unity schools are of better qual-

ity and more expensive. These are where the children of the rich and middle income groups are enrolled because they can pay the charges and fees.

These private expenditures vary from state to state. For example Annex Table 6 reveals that Lagos state is the most expensive state in terms of education expenditure in Nigeria. This is expected because Lagos state is the most cosmopolitan state in Nigeria. It has the highest concentration of industries in Nigeria. As a result of this industrialization, many people moved to the states from other part of the other states. This then pushed the other prices of commodities, including cost of schooling. This huge cost of education of education may leave many children of the poor out of school system in the state. This is the situation of things. It is a common sight to see the school age children be involved in street trading. The UNICEF indicates that the about 10 million school-aged children are out of the classrooms (Punch, 2008).

Table 9: Total Government Recurrent Expenditure in Education in Nigeria in 2004

Government	Amount in billion Naira
Federal Government	72.22
State Government	14.44
Local Government	7.22
Total Government Recurrent Expenditure	93.88

Source: Author's Computation Based on Central Bank of Nigeria Statistical Bulletin, 2008

Table 10: Allocation of Recurrent Expenditure to Levels of Education in Nigeria in 2004

Level of Education	% Allocation	Amount Allocated in Billion Naira
Primary	35.60	33.42
Secondary	29.10	27.32
Tertiary	35.30	33.14
Total	100.00	93.88

Source: Author's Computation Based on Central Bank of Nigeria Statistical Bulletin, 2008

Table 11: Benefit Incidence of Education Spending in Primary and Secondary Education in 2004

	Primary School			Secondary School		
Quintile	Net Enrolment	Relative Enrolment	Share of Government Expenditure	Net Enrolment	Relative Enrolment	Share of Government Expenditure in billion Naira
Poorest 20%	61.05	18.58	6.21	37.58	18.49	5.05
20%	63.73	19.40	6.48	43.25	21.28	5.82
20%	68.78	20.90	6.99	40.97	20.15	5.50
20%	64.74	19.70	6.58	31.90	15.69	4.29
Richest 20%	70.36	21.41	7.16	49.59	24.39	6.66
Total	328.66	99.99	33.42	203.29	100.00	27.32

Source: Author's Computation Based on Central Bank of Nigeria Statistical Bulletin, 2008

Table 12: Private Expenditure in Education in Primary and Secondary Schools in Nigeria in 2004

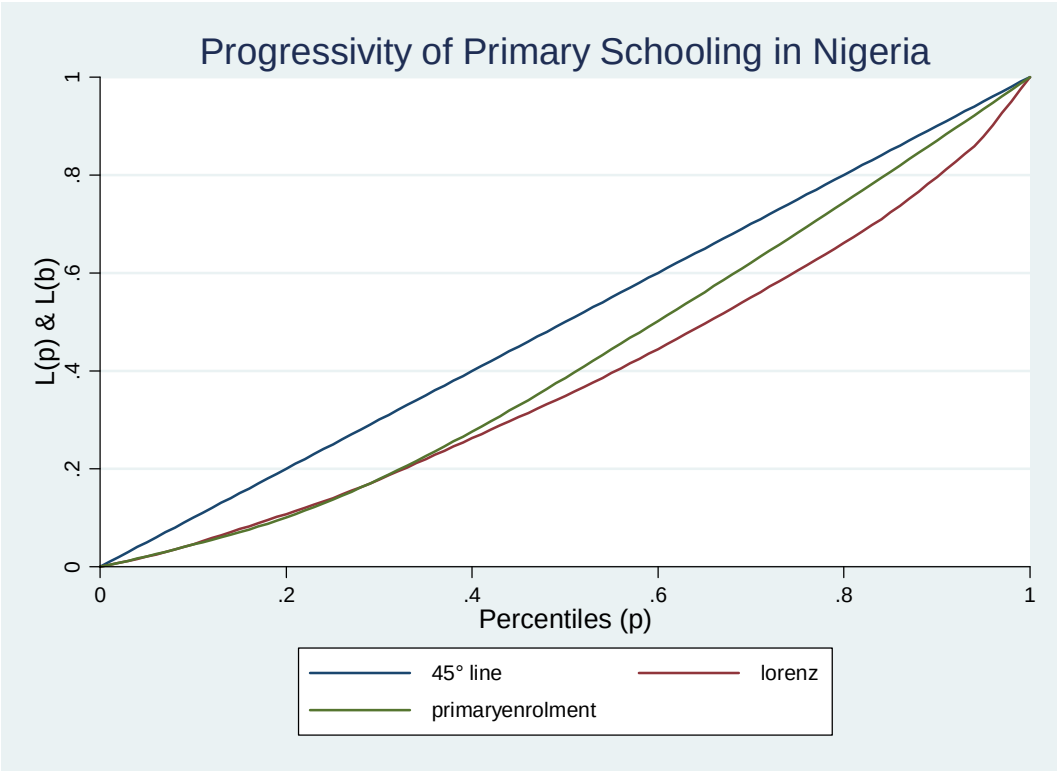
Quintile	Per Capita
Poorest 20%	36,230
20%	50,341.83
20%	35,272
20%	24,655.38
Richest 20%	48,348.75
Total	1,420,912
Average	38,403.03

Source: Author's Computation Based on Central Bank of Nigeria Statistical Bulletin, 2008

5.2 Results and Discussion of Graphical Analyses

Benefit Incidence Analysis may not be enough to make final judgment about the distributional impact of education spending in Nigeria; hence I supplemented it with graphical analysis. Figure 4 suggests that the concentration curve of primary enrolment lies above the Lorenz curve but below the diagonal, this indicates that the spending on primary education are least progressive or weakly equity enhancing i.e., it would redistribute the resources even if funded by proportional taxes (Hakro and Akram, 2007), and the poorer are comparatively better off when considering both their income and public spending, compared to considering only their income. However, since the concentration curve for primary school enrolment does not lies above the diagonal, it shows that spending is not well targeted at the poor, i.e. it is not strongly equity-enhancing or per capita progressive or pro-poor. In other word the public spending in primary education is can be said to be progressive in relative terms but regressive in absolute terms. This reinforces the findings of Benefit Incidence Analysis in Table 11. The fact that the spending is regressive in absolute terms implies that the poorest 20% get less than 20% of the enrolment. However, since the concentration curve of enrolment crosses the Lorenz curve at the lower region of the graph, the accurate decision on the progressivity of the spending is better made by estimating the concentration and Kakawani indices (Cuenca, 2008). However, what is glaring from Figures 3 and 4 is that the public spending in primary and secondary is regressive in absolute terms, because the concentration curves lies below the diagonal (line of perfect equality). Similarly, the final decision about the relative progressivity of secondary education will be made using the concentration and Kakwani indices.

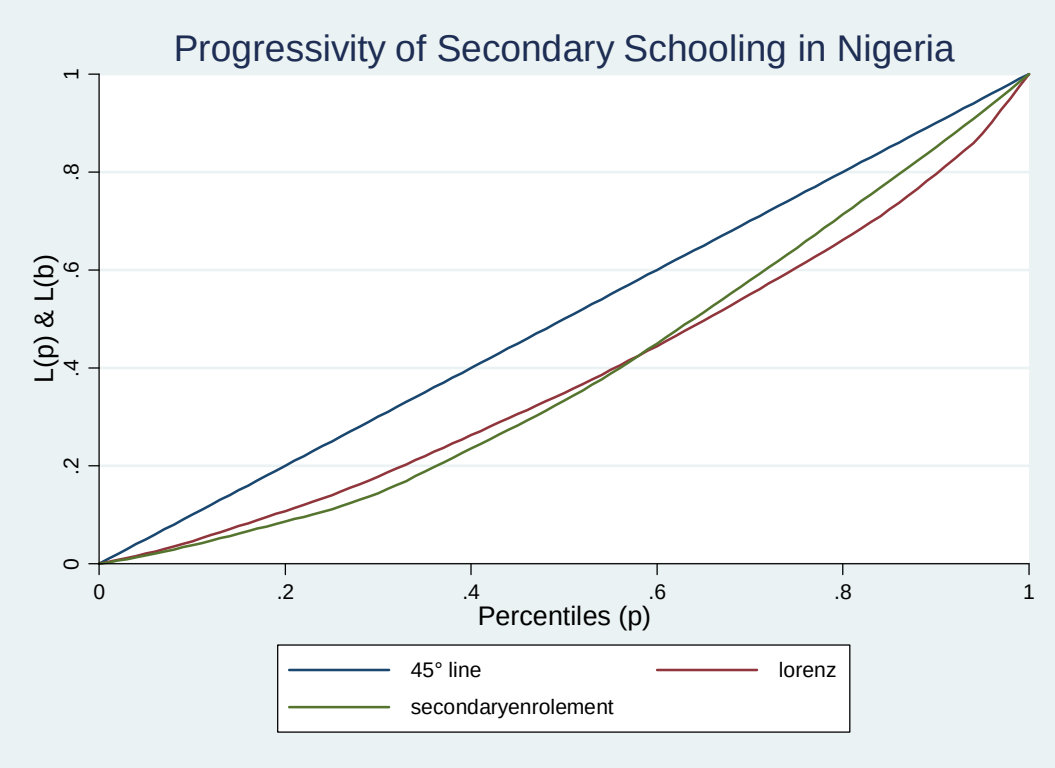
Figure 3: Progressivity of Primary Schooling in Nigeria



L(p) = Cumulative percent of income, L(b) = Cumulative percent of benefit (School Enrolment).

Source: Computed from NBS (2004)

Figure 4: Progressivity of Secondary Schooling in Nigeria



L(p) = Cumulative percent of income, L(b) = Cumulative percent of benefit (School Enrolment).

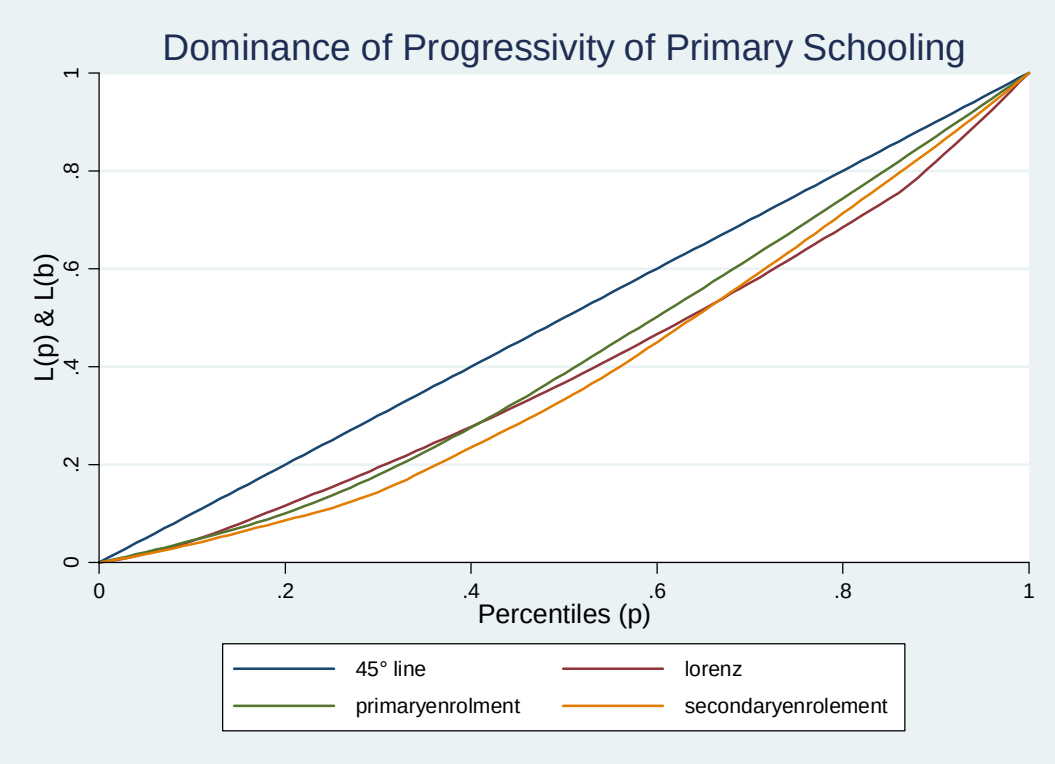
Source: Computed from NBS (2004)

Figure 5 compares the concentration curves of primary and secondary enrolment in Nigeria. It is also noted in the Figure 5 that the concentration curve of primary enrolment lies above that of secondary school(It is said that the primary enrolment curve dominates that of secondary). This implies that spending on primary education is more progressive than secondary education in relative terms. That is the poor benefit more from primary education than secondary education. This is in agreement with findings of other scholars on progressivity of education. For instance, Demery (2000) indicated that the poorest quintile benefits most from spending on primary and least from tertiary; the opposite pattern applies to the richest quintile in Indonesia. However, Demery (2003) revealed that in Indonesia, that primary education subsidy was well targeted and progressive, the concentration curve lying above the diagonal. He also indicated that secondary and tertiary subsidies were not only

poorly targeted (concentration curve for secondary and tertiary education lying below the diagonal), but also regressive (concentration curve for secondary and tertiary education lying below the Lorenz curve). However, the reason for lower participation in secondary school by the poorest quintile in Nigeria may be primarily due the fact that primary education is less expensive than secondary education as indicated in Table 8 previously.

The fact that spending on primary education may be more progressive than secondary education in relative terms has been documented by Hamid *et al* (2003). They have shown that the subsidies in education are progressive at the lower levels of education and regressive at higher levels. In Figure 5 I have demonstrated that primary education (lower level of education) is relatively more progressive than secondary education (higher level of education), but poor in targeting the poor. This is because the concentration curve of primary school enrolment lies above that of secondary school enrolment.

Figure 5: The Progressivity of Primary and Secondary Schooling in Nigeria



L(p) = Cumulative percent of income, L (b) = Cumulative percent of benefit (School Enrolment).

Source: Computed from NBS (2004)

However, as a result of the poor education funding in Nigeria by the government people have to bear the burden of payment for education by them. In fact, apart from period of 1970 to early 1980s (before Structural Adjustment Program, SAP), Imahe and Alabi (2005) have shown that almost all the educational institution, right from kindergarten up to University charges one form of fees or the other. This out of pocket payment for education for individual implies that school enrolment discussed previously is not automatic. The parents have to pay one form of charges or the other for their children to be enrolled. The way this out of pocket payments are distributed can increase or increase income inequality. In order to test that, we need to examine the income distribution before the education payment (pre payment Gini) and income distribution after the education payment (post payment Gini)[22]. The next section of the paper is devoted to that.

5.3 Results and Discussions of Progressivity Indices

The Kakawani indices of 0.03 and 0.05 for primary and secondary schooling indicate that the education spending in Nigeria is progressive in relative terms, primary education being more progressive than the secondary schools as presented in Table 13. This implies that the rich pay a higher proportion of their income than the poor as indicated in Figures 6 and 7. The figures suggest that the proportion of income of the rich that went to education spending in primary and secondary school is higher than the poor. This explains the reason for departure of post payment curves farther from the line of perfect equality (diagonal) compared with prepayment curves. This is in consonance with Table 8 that indicates that the rich pays more than the poor in education spending in Nigeria. This implies that the educational opportunities are more evenly distributed than the income. The concentration index of primary school enrolment (0.16) is lower than the concentration index for secondary school (0.22). The fact that the concentration indices are positive implies that the spending is regressive in absolute terms. This confirms the fact that the education spending in primary and secondary education in Nigeria are poorly targeted at the poor. This finding is in perfect agreement the evidence of public spending in education in Sub Sahara Africa. In the majority of the country case

[22] This suggests that the way education is financed has potential for redistribution of income.

studies, the public spending on education was found to be progressive (relative), but poorly targeted[23] (regressive in absolute terms) (Chu et al, 2000; Killick, 2002).

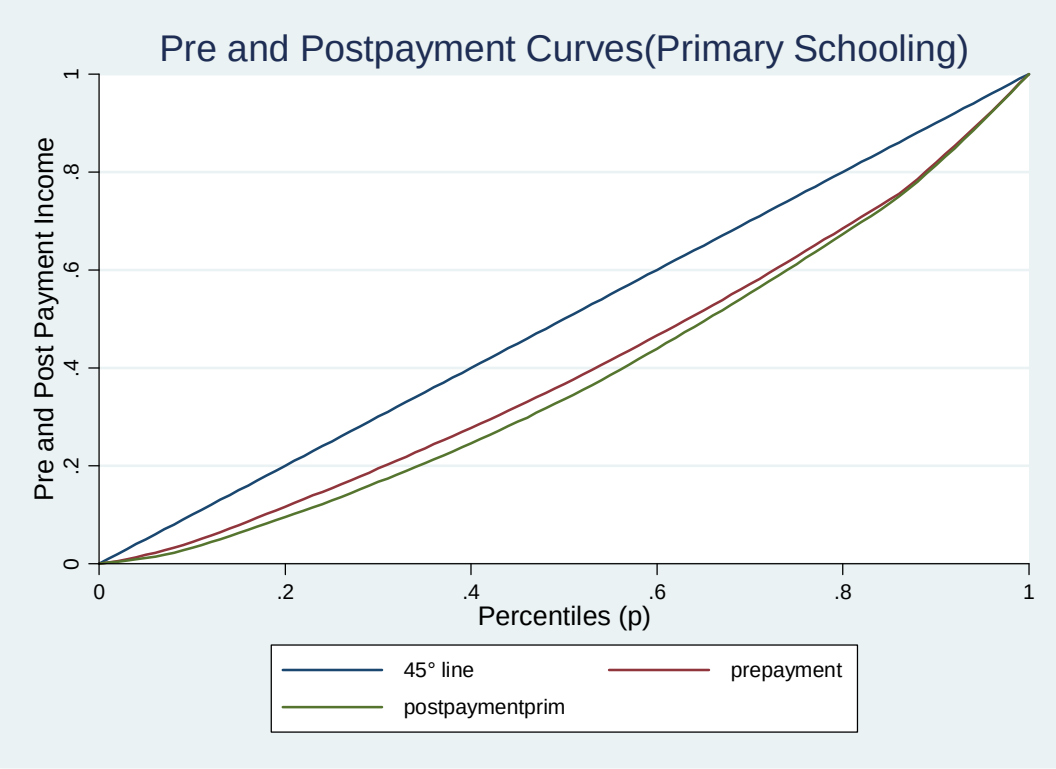
Table 13: Indices of Progressivity in Education Spending in Nigeria

Index	Estimate
Gini of Pre-payment Income(G)	0.58
Concentration Index of Post-payment Income for Primary School(Cp)	0.61
Concentration Index of Post-payment Income for Secondary School(Cs)	0.63
Kakawani Index of Progressivity for Spending in Primary School (Cp – G)	0.03
Kakawani Index of Progressivity for Spending in Secondary School (Cs – G)	0.05
Concentration Index for Enrolment in Primary School	0.16
Concentration Index for Enrolment in Primary School	0.22

Source: Author's Computation Based on NBS (2004) and CWIQ (2006)

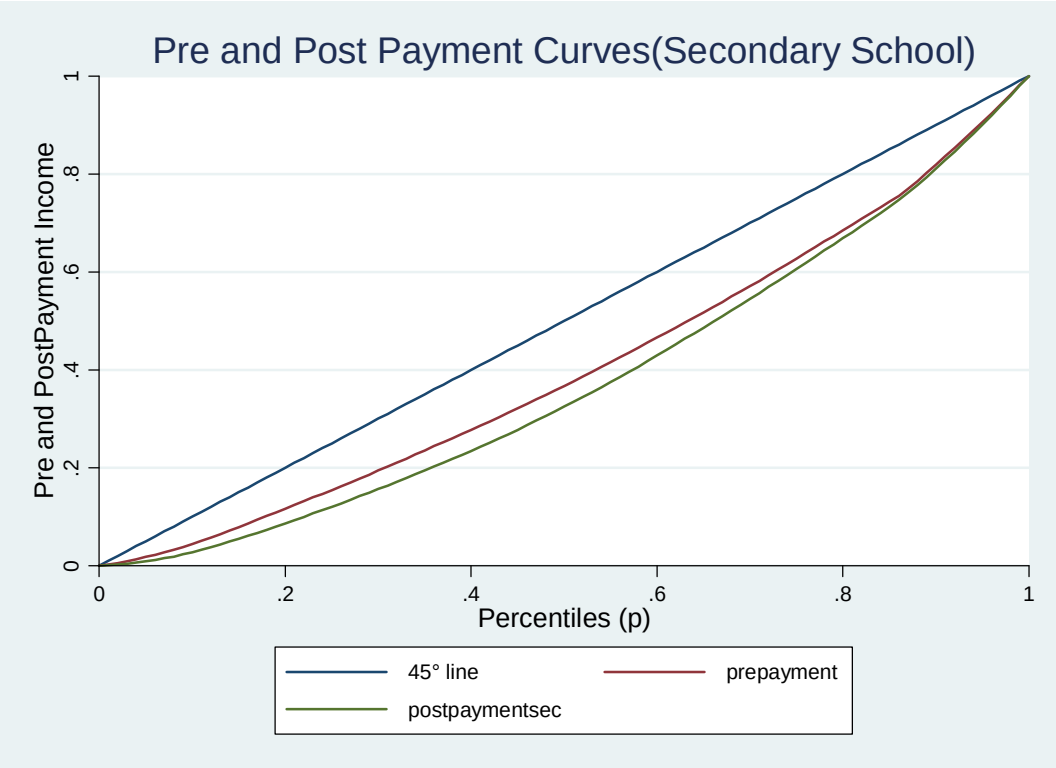
[23] Generally, pro poor spending concentrates resources on basic services such as education from which majority of the poor benefit rather than such service as defense (majority of the poor do not have property to be protected). In a pro poor spending arrangement 20% poor quintile are expected to receive more than 20% of benefit accrued from such spending. Therefore, the proportion of the benefit accrued to the poor from the public spending is more than the proportion of the tax they paid into the funding of the benefit (El Mahdi, 2008).

Figure 6: Pre and Post Payment Curves in Primary Schooling in Nigeria



Source: Computed from NBS (2004)

Figure 7: Pre and Post Payment Curves in Secondary Schooling in Nigeria



Source: Computed from NBS (2004)

6.0 Conclusions and Policy Recommendations

The study reveals that the richest group benefits more than the poorest group in public education expenditure in Nigeria and they spend more on their children than the poor. The study also demonstrates that education spending in Nigeria is progressive in relative terms, primary education being more progressive than the secondary schools. This implies that the rich pay higher proportion of their income than the non poor. This implies that the educational opportunities are more evenly distributed than the income. However, the spending is regressive in absolute terms, suggesting that the spending is not strongly income equity enhancing. It also shows that the spending is not well targeted at the poor, hence is not pro-poor. As a result of the existence of a positive link between access to, and level of, education on one hand and involvement in the more remunerative activities on the other (Lanjouw, 1999; Gordon and Catherine, 2001), it can be recommended that education spending in Nigeria should be made pro- poor.

Pro-poor-policy demands that equity should be at the centre of education financing strategies in order to reach the disadvantaged children in Nigeria. However, the pro-poorness is conspicuously missing in the education Road Map in Nigeria which is the current policy document by which the education sector in Nigeria is being run. The road map, which the state and federal governments are expected to implement, is focused on four critical areas across three levels of education. The areas are: access and equity; standards and quality assurance; technical and vocational education; and training and funding. Although, the road Map recognizes that equity issues have always played a significant role in measuring the success or otherwise of basic education delivery, the road map is weak on how equity can be promoted in Nigerian education system.

A focused education programme for the children of the farmer and the fishermen in the rural areas may also be relevant to increase the pro-poorness of education funding in Nigeria. This implies that the nomadic education system (nomadic education system is a special education system that is targeted at the disadvantaged children of people that live hinterland, which normal education programmes may not be able to capture) in Nigeria should be strengthened and re-energised for effective performance. This can be done by recruiting more teachers for them and by construction of

more schools in the affected areas. The Government can provide attendance incentives for teachers in rural areas as an integral part of the National School Transformation Programme (NSTP).

There should be need to increase spending on education with focus on primary education. The percentage of GDP devoted to education should be increased to average of 5% which is the average for the Sub Sahara African countries. The proportion of education budget allocated to basic education should be increased to 50% as the case in other Sub Sahara African countries and as the case in Nigeria before independence. The increase in financial support for basic education will ensure prompt payment of the teachers which were not norms in the nearest past. However, if the teachers are not adequately remunerated, they are likely to be unmotivated. If they are not motivated, there is no way this will not affect their performance. An unmotivated teacher cannot be at his best. If he is not at his best, the pupils will be the worst for it.

The significance of not just increasing funding but also instituting a mechanism for ensuring proper utilisation of funds should be underscored in Nigeria. The government agencies seem to be only interested in the quantity of funds allocated to education sector without emphasis on the efficient and effective use of the allocated fund in Nigeria.

Bibliography

Aderinokun, K. (2008), FG moves to review revenue allocation formula, This Day Newspaper of 21 January, 2008. Lagos, Nigeria, Available on the internet a t http:// allafrica.com/stories/20081210953.htm

Alabi, R.A. (2008), Income distribution and accessibility to primary and secondary schools in Nigeria, Monograph/Discussion Series 114, Institute for World Economics and International Management, University of Bremen, Bremen, Germany. Pp. 1-44. Available on the internet at http://www.iwim.uni-bremen.de/publikationen/pdf/b114.pdf

Callaway, A. and A. Musone (1965), Financing of education in Nigeria. Institute for Educational Planning (IIEP), United Nations Educational, Scientific and Cultural Organisation (UNESCO). Africa Research Monograph 15, Paris. France

Castro-Leal, F., Demery, J. and K. Mehra (2000), Public spending on health care in Africa: Do the poor benefit?, in: *Bulletin of the World Health Organization*, 78(1): 66 -75.

Central Bank of Nigeria Statistical Bulletin (2008), Central Bank of Nigeria Statistical Bulle-
tin Vol 17, Available on the internet at http://www.cenbank.org/OUT/PUBLICATIONS/STATBULLETIN/RD/2008/STABULL-2006.PDF. Lagos, Nigeria

Coady, D., M. Grosh, and J. Hoddinott (2004), Targeting of transfers in developing countries: Review of lessons and experience. The World Bank, Washington, D.C, United States of America

Chu, Ke-Young, H. Davoodi, and S. Gupta (2000), Income distribution and tax and government spending policies in Developing countries, IMF Working Paper /00/62

Cuenca, J.S (2008), Benefit incidence analysis of public spending on education in the Philippines: A methodological Note, Discussion Paper Series Number 2008-09, Manila, Philippines

CWIQ (2006), Core Welfare indicator Questionnaire Survey (2006), National Bureau of Statistics, Abuja, Nigeria

Davoodi, H., Tiongson, E., and E. Asawanuchit (2003), How useful are benefit incidence analyses of public education and health spending, IMF Working Paper 03/227, International Monetary Fund, Washington D.C, United States of America

Demery, Lionel (2000), Benefit incidence: A practitioner's guide, The World

Bank, Washington, D.C. United States of America

Demery, Lionel (2003), 'Analysing the incidence of public spending', in: Bourguignon, Luiz and Pereira Silva (eds), *The impact of economic policies on poverty and income distribution: Evaluation techniques and tools*, The World Bank, Washington, D.C. United States of America

Demery, L. and M. Verghis (1994), The incidence of education expenditure in Kenya, Education and Social Policy Department, The World Bank, Washington D.C, United States of America

Egwu, Sam (2009), Road map for Nigerian education sector, Federal Ministry for Education, Abuja, Nigeria, Also available on the internet at http://www.fme.gov.ng/pages/pages.asp?parent=13&id=67

El Mahdi, A. Y. (2008), Budget analysis for pro-poor spending, United Nations Development Programme, Khartoum, Sudan, Also available on the internet at http://www.sd.undp.org/publications/Budget%20Analysis.pdf

Federal Republic of Nigeria (1982), Report of the panel on alternative sources for financing education, Federal Ministry of Finance, Lagos, Nigeria

Federal Republic of Nigeria (1987), Report of the technical committee on the management and financing of primary education in Nigeria, Federal Ministry of Finance, Lagos, Nigeria

FME (2009), Egwu unveil agenda for education, Federal Ministry for Education, Abuja, Nigeria, Also available on the internet at http://www.fme.gov.ng/pages/pages.asp?parent=13&id=65

Francis, P. (1998), Hard lessons: Primary schools, community and social capital in Nigeria, World Bank Technical Paper No 420, The World Bank, Washington DC. United States of America

Gupta, S., Marijn, V., and R. T. Erwin (2002), The effectiveness of government spending on education and health care in developing and transition economies, in: *European Journal of Political Economy,* Vol. 18: 717-737

Gordon, A. and E. Catherine (2001), Rural non-farm activities and poverty alleviation in Sub-Saharan Africa, Natural Resources Institute Policy Series 14, Also available on internet at: www.nri.org/publications/policyseries/PolicySeries, London, United Kingdom

Grosh, M. E. (1995a), 'Towards quantifying the trade-off: Administrative costs and incidence in targeted programs in Latin America', in: D. van de Walle and K. Nead (eds), *Public Spending and the poor: Theory and evidence*, Baltimore MD: Johns Hopkins

Grosh, M. E. (1995), 'Five criteria for choosing among poverty programmes', in: N. Lustig (ed), *Coping with austerity: Poverty and inequality in Latin America*, Washington D.C.: Brookings Institution, United States of America

Hamid, R.D., Erwin R.T., and S.A. Sawitree (2003), How useful are benefit incidence analyses of public education and health Spending?, IMF Working Paper 227, WP/03/227

Hakro**,** A.W. and Muhammed Akram (2007), The incidence of government expenditures on education and health: Microeconomic evidence from Pakistan, in: *The Lahore Journal of Economics* 12 (2): 27-48

Hartnett, T. (2000), Financing trends and expenditure patterns in Nigerian Federal Universities, The World Bank (mimeo), Washington, D.C, United States of America

Hinchliffe, K. (2002), Public expenditure on education in Nigeria: Issues, estimates and some implications, The World Bank, Washington D.C., United States of America

Hinchliffe, K. (1989), Federation and education finance: Primary education in Nigeria, in: *International Journal of Educational Development 9 (3):12-19*

Huer, F. (2005), International education statistics, Available on the internet at http://huebler.blogspot.com/2005/10/primary-school-attendance-in nigeria.html

Hyun H. S. (2006), Assessing the pro-poorness of the government fiscal policy in Thailand, International Poverty Center, United Nations Development Programme (UNDP), Working Paper No.15

Imahe, J.O. and Alabi, R.A. (2005), Government educational spending and human capital development in Nigeria: Empirical evidence from Nigeria, Paper presented at 'Regional Conference on Education in West Africa: Constraints and Opportunities', Dakar, Senegal, Organized by Cornell University, CREA, and INRA, Paris. 1st – 2nd November, 2005

Kakwani, N. (1977), Measurement of tax progressivity: An international comparison, in: *The Economic Journal* 87: 71-80.

Killick, T. (2002), Responding to inequality, Inequality Briefing Paper No 3, Economists' Resource Centre, Overseas Development Institute (ODI), London, United Kingdom

Lanjouw, P. (1999), The rural non-farm sector: A note on policy options, Non-farm Workshop Background Paper, The World Bank. Washington, D.C, United States of America

Mainardi, S. (2007), Unequal access to public healthcare facilities: Theories and measurement revisited, *Surveys in Mathematics and its Application*, Volume 2: 91-112

Norman Gemmell (1985), The incidence of government expenditure and redistribution in the United Kingdom, in: *Economica*, New Series, Vol.52 (207): 336-344

NBS (2004), National Bureau of Statistics Database, National Bureau of Statistics Office, Abuja, Nigeria

National Policy on Education (2004), *National Policy on Education*, 4th edition, Nigerian Educational Research and Development Council (NERDC), Lagos, Nigeria

O' Donnelle, O. van Doorslaer, E.Wagstaf, and M. Lindelow (2007), *Analysing health equity using household survey data: A guide to techniques and their implementation*, The World Bank Washington, D.C., United States of America

Olaniyi, O. and J. A. Adam (2003), "Public expenditure and human development in Nigeria (1970-2000)", in: P.I. Ozo-Esan and G. Evbuomwan (eds), *Human Resources Development in Africa*, Published by Department of Economics, University of Ibadan, Nigeria, 641pp

Onyidoh, H. (2009), The decline of the education system in Nigeria, Available on the internet at http://www.helium.com/items/525840-the-decline-of-the-education-system-in-nigeria?page=2

Oyekale, A. S., Adeoti, A. I., and T. O. Oyekale (2006), Measurement and sources of income inequality among rural and urban households in Nigeria, Poverty Monitoring, Measurement and Analysis Working Paper 2006-20, Policy and Economic Policy, Quebec, Canada

Punch (2008), Ten million children out of school in Nigeria –UNICEF, Available on the internet at http://www.punchng.com/Articl.aspx?theartic=Art200801160352620

Rasmus, H., Kenneth S. and Finn, T (2001), Public Spending and Poverty in Mozambique, UNU/WIDER project on New Fiscal Policies for Growth and Poverty Reduction

Sabir, M., (2003), Gender and public spending on education in Pakistan: A Case study of disaggregated benefit incidence, Paper Presented at Conference of Social Policy Development Centre (SPDC), Pakistan

Sackey, H. A. (2007), Private Returns to education in Ghana: Implications for Investments in Schooling and Migration, African Economic Research Consortium (AERC) Research Paper 174, Nairobi, Kenya

Samuel, T. (2002), Strategies for raising additional resources for education, Paper presented at the forum on cost and financing education in Nigeria, Education Sector Analysis, September 17-19, 2002, Abuja, Nigeria

Shahin, Y (1999), How equitable is public spending on health and education?, Background Paper to the World Development Report for 2000/2001, World Bank, Washington, D.C. United States of America

Suits, Daniel B. (1977), Measurement of Tax Progressivity, in: *American Economic Review* 67 (4): 747–752

UNESCO (2000), World Education Report, Paris: UNESCO, France

UNESCO (2008), E9 Background, The seventh E-9 ministerial Review Meeting on Education for All, Bali, Indonesia, 10-12 March, 2008, Organized by UNESCO, Available on the internet at http://e9.depdiknas.go.id/index.php/e9-background.html

Van de Walle, Dominique (1995), Public spending and the poor: What we know, what we need to know, *Policy Research Working Paper* No. 1476, The World Bank, Washington D. C., United States of America

World Development Report (2000/2001), Attacking Poverty, World Development Report, World Bank, Washington, D. C., United States of America

World Education Report (2000), World Education Report, UNESCO, Paris, France

World Bank (2001), World Bank Annual Report, 2001, The World Bank, Washington, D. C., United States of America

World Bank (2000), World Bank Annual Report, 2000, The World Bank, Washington, D. C., United States of America

World Bank (1994), Higher education: The Lessons of experience, The World Bank, Washington, D. C., United States of America

Younger, S. D. (1999), The relative progressivity of social services in Ecuador, in: *Public Finance Review*, 13 (2): 15-21

Annex Table 1: GDP, Oil Revenues and Expenditure on Education in Nigeria 1981-2006

Year	Exp. on education (Current) (Billion Naira)	Exp. on education (Capital) (Billion Naira)	Total Education Exp. (Billion Naira)	Total educ. exp. as % of total GDP	Total educ. exp. as % of FGN Revenue	Total educ. exp. as % of Oil Revenue
1981	0.54	0.44	0.98	1.94	7.37	11.45
1982	0.65	0.49	1.14	2.21	9.97	14.58
1983	0.62	0.35	0.97	1.72	9.23	13.38
1984	0.72	0.14	0.86	1.38	7.64	10.40
1985	0.67	0.18	0.85	1.20	5.65	7.78
1986	0.65	0.44	1.09	1.52	8.65	13.44
1987	0.51	0.14	0.65	0.60	2.56	3.42
1988	0.80	0.28	1.08	0.76	3.91	5.45
1989	1.72	0.22	1.94	0.88	3.60	4.96
1990	1.96	0.33	2.29	0.84	2.33	3.19
1991	1.27	0.29	1.56	0.49	1.54	1.89
1992	1.68	0.38	2.06	0.38	1.08	1.26
1993	6.44	1.56	8.00	1.16	4.15	4.94
1994	7.88	2.41	10.29	1.14	5.10	6.42
1995	9.42	3.31	12.73	0.66	2.77	3.92
1996	12.14	3.22	15.36	0.57	2.93	3.76
1997	12.14	3.81	15.95	0.57	2.70	3.83
1998	13.93	12.79	26.72	0.98	5.76	8.24
1999	23.05	8.52	31.57	0.95	3.33	4.36
2000	44.23	23.34	67.57	1.43	3.55	4.25
2001	39.88	19.86	59.74	1.11	2.68	3.50
2002	100.24	9.22	109.46	1.76	6.32	8.89
2003	64.76	14.68	79.44	1.31	3.08	3.83

2004	72.22	21.55	93.77	0.82	2.39	2.80
2005	92.59	27.44	120.03	3.29	2.16	2.52
2006	129.42	35.79	165.21	4.52	2.77	3.12
Total	510.71	155.39	666.10	1.15	2.39	2.90

Source: Computed from Central Bank of Nigeria Statistical Bulletin (2006)

Annex Table 2: Education Cost Structure in Nigeria (~~N~~)

Item	*Nigeria*	*%*
School fees	6649.20	39.9
Association fees	630.60	3.8
Uniforms	1471.56	3.8
Books	3532.22	21.2
Transport	1385.47	8.3
Room & Boarding	1470.30	8.8
Extra activities	1070.62	6.4
Other	436.72	2.8
Total	16,646.69	100

Source: Computed from NBS (2004)

Annex Table 3: Summary Statistics for Primary Schooling in Nigeria

State	Net School Enrolment (%)	Number of En-rolment	Private School Expendi-ture (N)	Population (m)	Pre Payment Income	Post Payment Income
Abia	82.6	671595	16056.48	2.833	90605	74548.52
Adamawa	64	509617	6527.84	3.168	67861	61333.16
A. Ibom	78.5	1011599	18905.48	3.92	110058	91152.52
Anambra	85.1	402947	21007.36	4.182	129679	108671.64
Bauchi	40.1	654151	7304.88	4.677	132463	125158.12

Bayelsa	72.2	272317	30241.64	1.703	102158	71916.36
Benue	77.4	690243	10492.24	4.219	100810	90317.76
Borno	34.3	572927	16481.52	4.151	201527	185045.48
C. River	77	486394	25818.76	2.889	83268	57449.24
Delta	71.1	642326	9897.36	4.098	94384	84486.64
Ebonyi	75.5	346829	5469.2	2.173	30863	25393.8
Edo	76.8	465310	24889.04	3.218	84122	59232.96
Ekiti	89.1	457191	21609.72	2.384	92556	70946.28
Enugu	79.9	296604	14294.72	3.257	77126	62831.28
Gombe	33.4	490048	34655.72	2.354	83245	48589.28
Imo	84.4	588953	19581.32	3.934	81418	61836.68
Jigawa	29.6	433639	34187.12	4.349	52561	18373.88
Kaduna	66.1	990151	8826.4	6.067	117234	108407.6
Kano	47.8	1229301	4973.32	9.384	108582	103608.68
Katsina	45.1	635250	6388.8	5.793	92376	85987.2
Kebbi	32.9	276956	15587	3.239	49879	34292
Kogi	80.5	676120	16066.16	3.279	85837	69770.84
Kwara	79.8	357111	23977.8	2.371	124555	100577.2
Lagos	81.8	538318	41199.84	9.013	213706	172506.16
Nassarawa	66.5	339890	5195.08	1.863	115210	110014.92
Niger	57.5	431528	8488.92	3.95	111373	102884.08
Ogun	83.6	441912	10861.84	3.728	112525	101663.16
Ondo	84.5	539433	12331.88	3.441	127383	115051.12
Osun	84.1	509584	16645.2	3.424	177039	160393.8
Oyo	77.1	774403	16906.56	5.592	193369	176462.44
Plateau	79.3	604120	11020.68	3.179	126835	115814.32
Rivers	75.9	526889	38310.36	5.185	189354	151043.64
Sokoto	32.1	691126	15416.28	3.697	88420	73003.72
Taraba	59	475152	12836.56	2.301	126775	113938.44
Yobe	53.5	379323	13040.28	2.322	92393	79352.72

Zamfara	26.1	249047	5579.64	3.26	118416	112836.36
FCT	83.4	193217	24128.28	1.405	103169	79040.72

Sources: Computed From CWIQ (2006)

Annex Table 4: Summary Statistics for Secondary Schooling in Nigeria

State	Net Enrolment (%)	Number of Enrolment	Per capita Priv. Exp (N)	Per capita Public Exp.	Population (Million)	Pre Payment Income (N)	Post Payment Income (N)
Abia	62.4	142508	20435.52		2.833	90605	70169.48
Adamawa	37	124298	8308.16		3.168	67861	59552.84
A. Ibom	59	206085	24061.52		3.92	110058	85996.48
Anambra	63.3	174189	26736.64		4.182	129679	102942.36
Bauchi	22.2	100461	9297.12		4.677	132463	123165.88
Bayelsa	50	51265	38489.36		1.703	102158	63668.64
Benue	45	202312	13353.76		4.219	100810	87456.24
Borno	22.8	93400	20976.48		4.151	201527	180550.52
C. River	62.4	115748	32860.24		2.889	83268	50407.76
Delta	57.6	272361	12596.64		4.098	94384	81787.36
Ebonyi	43.4	180065	6960.8		2.173	30863	23902.2
Edo	58.1	267572	31676.96		3.218	84122	52445.04
Ekiti	71.6	115169	27503.28		2.384	92556	65052.72
Enugu	60.6	196658	18193.28		3.257	77126	58932.72
Gombe	17.2	144476	44107.28		2.354	83245	39137.72
Imo	62.1	193758	24921.68		3.934	81418	56496.32
Jigawa	14.5	75587	43510.88		4.349	52561	9050.12
Kaduna	42.6	249702	11233.6		6.067	117234	106000.4
Kano	27.1	242369	6329.68		9.384	108582	102252.32
Katsina	22.5	114969	8131.2		5.793	92376	84244.8
Kebbi	21.8	104556	19838		3.239	49879	30041

Kogi	59.8	146667	20447.84		3.279	85837	65389.16
Kwara	48.3	137950	30517.2		2.371	124555	94037.8
Lagos	69.8	627477	52436.16		9.013	213706	161269.84
Nassarawa	44	128112	6611.92		1.863	115210	108598.08
Niger	43.2	129278	10804.08		3.95	111373	100568.92
Ogun	53.8	360351	13824.16		3.728	112525	98700.84
Ondo	64.7	197456	15695.12		3.441	127383	111687.88
Osun	62.5	215225	21184.8		3.424	177039	155854.2
Oyo	64.7	418623	21517.44		5.592	193369	171851.56
Plateau	42.5	174782	14026.32		3.179	126835	112808.68
Rivers	59.6	225362	48758.64		5.185	189354	140595.36
Sokoto	17.9	78369	19620.72		3.697	88420	68799.28
Taraba	30.6	72888	16337.44		2.301	126775	110437.56
Yobe	22.6	94389	16596.72		2.322	92393	75796.28
Zamfara	20	71052	7101.36		3.26	118416	111314.64
FCT	58.3	64283	30708.72		1.405	103169	72460.28

Sources: Computed from CWIQ (2006)

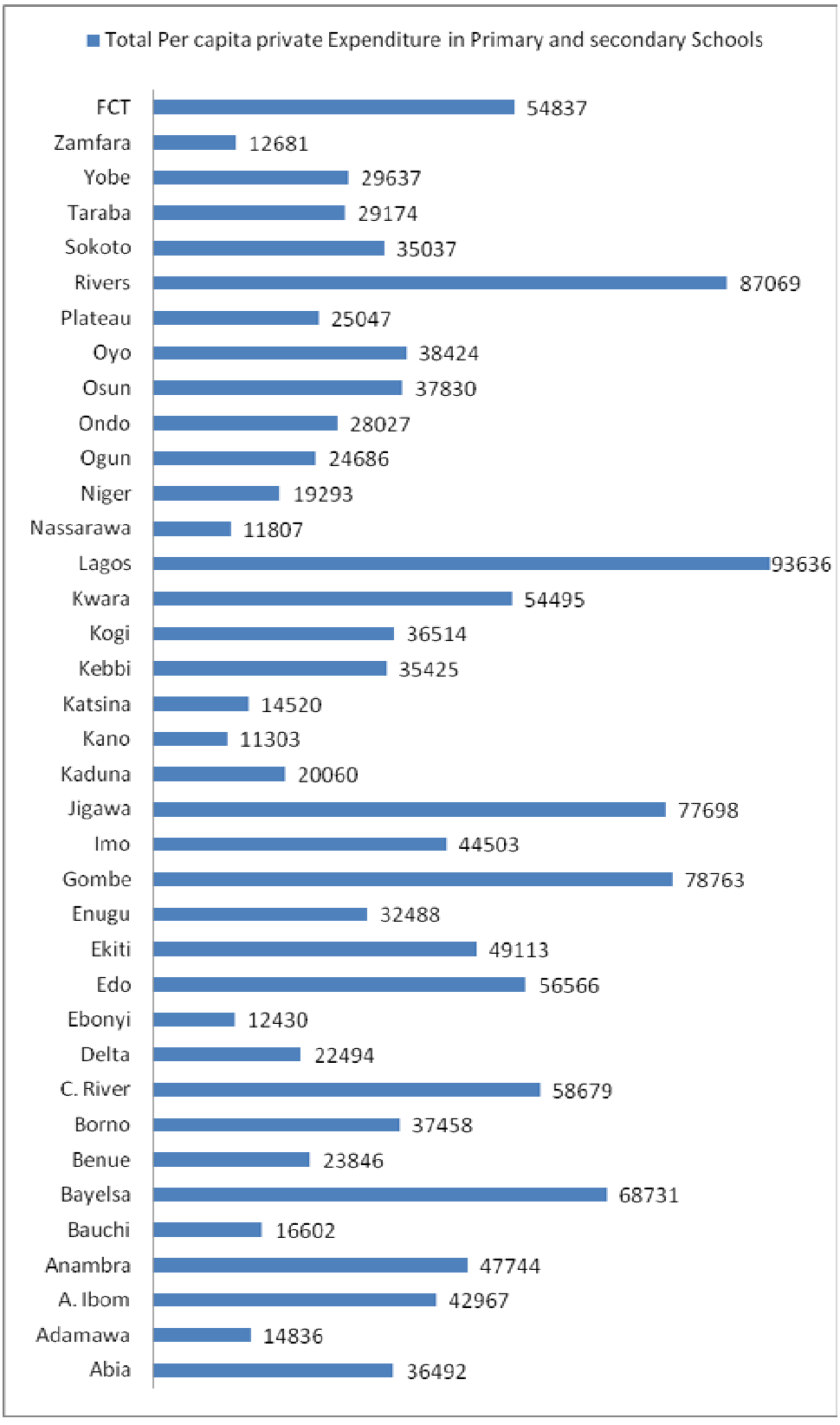
Annex Table 5: Total Per capita Private Expenditure in Primary and Secondary Schooling in Nigeria.

States	Expenditure
Abia	36492
Adamawa	14836
A. Ibom	42967
Anambra	47744
Bauchi	16602
Bayelsa	68731
Benue	23846
Borno	37458

C. River	58679
Delta	22494
Ebonyi	12430
Edo	56566
Ekiti	49113
Enugu	32488
Gombe	78763
Imo	44503
Jigawa	77698
Kaduna	20060
Kano	11303
Katsina	14520
Kebbi	35425
Kogi	36514
Kwara	54495
Lagos	93636
Nassarawa	11807
Niger	19293
Ogun	24686
Ondo	28027
Osun	37830
Oyo	38424
Plateau	25047
Rivers	87069
Sokoto	35037
Taraba	29174
Yobe	29637
Zamfara	12681
FCT	54837

Sources: Computed From CWIQ (2006)

Annex Table 6: Per capita Private expenditure in Primary and Secondary school in Nigeria



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