

Nigeria's Government Spending on Basic Education and Healthcare in the Last Decade: What has Changed After Reforms?

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Abstract Government spending can be effective and have the desired effect on the level of socioeconomic development when there is consistency and compliance of government agencies with the development agenda a nation adopts. Social indicators (education and healthcare) in Nigeria over the past decade have not been on track with the distributive outcome targets set by the 2004 social sector reforms despite scaling up funding in the two key social sectors (education and healthcare). The study employs a welfare distribution analysis through concentration curves and conducting several dominance tests to ascertain who benefited from public spending in these sectors. Findings suggest that apart from public primary education and healthcare for urban residents, no other level of social service was absolutely progressive for all or by gender or by location. These results were not better than the results of 2003 before these reforms were introduced. The study therefore recommends that strengthening policies should be followed by institutional intensification and other several interrelated areas to attain effectiveness of public spending. Also budget drafting in the executive and legislature must be guided by relevant priority documentation while project costs should be realistic and not inflated as evidenced by several other similar studies and reviews to achieve its desired goals.

Keywords Reforms · Public spending · Distributional outcomes · Benefits · Education · Healthcare · Nigeria

JEL Classification D61 · H51 · H52 · H53 · H61 · P16

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1 Introduction, Conundrum and Objectives

Efficiency and effectiveness in public finance may simply refer to the analysis of relationship between inputs and final outcomes. This study defines efficiency as what outputs will be produced given some quantities of inputs. This implies that the greater the level of output resulting from a *given level* of input the more efficient public spending is and vice versa. Likewise effectiveness in the study relates the input or the output to the final outcome and in this case the *distributive outcomes*. Such outcomes refer to the benefits that accrue to different household groups (population quintiles) through public spending.

Public spending effectiveness in some developing countries including Nigeria has fallen short in terms of achieving the outcome targets. This is contrary to the words of van de Walle (1995) that public spending should promote efficiency (by correcting for various market failures) and equity (by improving the distribution of economic welfare). If the above holds, it is therefore important to ask questions in a country like Nigeria that has spent significant part of her resources/wealth (between 36 and 58 % of GDP as consolidated¹ spending) in the last two decades with substantial part of this spending going to education and healthcare. This is so because the country is yet to come close to achieving efficiency and equity targets (reduction in poverty and inequality) in the production and distribution of public goods. Poverty incidence is still approximately 69 % while her Gini coefficient is approximately 0.5 according to the Harmonized Nigeria Living Standard Survey (HNLSS) of 2010.

If it is believed that investment (public spending) in education and healthcare² which have been tackled by all tiers of Nigerian government should help to improve the welfare of the poor then there is the need to evaluate who has benefited from such spending. Results from such studies will aid better targeting of public spending towards poverty and inequality reduction for equity reasons. In the Nigeria case, previous studies by different authors (Amakom 2011; Eboh 2009; Ichoku 2008; etc.) have found that this has not been the case though these studies used data from the pre-reform era. These studies as well as others found that the direction of most of the little benefits experienced from such spending have been skewed to the rich instead of the poor. Such findings are being corroborated by the results of yet another latest household survey (HNLSS) which shows increase in both absolute³ and relative⁴ poverty as well as rising inequality. With the introduction of education and healthcare reforms in 2004 which have as its goal “the correction of distributional imbalance”, one should expect some significant changes in some key education, healthcare, poverty and inequality indicators in subsequent years. Table 1 shows mixed results for most selected basic education and health indicators even in the face of higher consolidated expenditure in education and healthcare.

In Nigeria just as any other developing country, the government plays a key role in the provision of basic social services particularly inputs to human capital development such as

¹ Consolidated spending here means spending by all tiers or levels of government (the federal, state and the local government).

² For education and healthcare spending in Nigeria, the state (federal, state and local governments) is the major service provider because they are in the concurrent list of the 1999 Nigerian Constitution as amended.

³ Here, poverty is defined in terms of the minimal requirements necessary to afford minimal standards of food, clothing, healthcare and shelter. This method considers both food expenditure and non-food expenditure using the per capita expenditure approach. This method is otherwise known as Food Energy Intake measure of poverty.

⁴ Relative poverty as used here refers by reference to the living standards of majority in a given society and separates the poor from the non-poor.

Table 1 Selected basic, education and healthcare statistics

	2003	2007	2011
Indicators			
Poverty incidence	65.60	54.40	60.90
Real GDP growth rate (%)	2.6	6.3	6.9
Population growth (annual %)	2.46	2.49	2.52
Population, total in million	133.06	146.9	160.7
Education			
Net enrolment rate, primary (% of primary school age children)	65.60	65.09	57.55
Children out of school, primary	7,122,520	7,974,015	10,542,105
Children out of school, primary, female	3,985,190	4,342,730	5,487,901
Children out of school, primary, male	3,137,330	3,631,279	5,054,204
Literacy rate, adult total (15 and above)	54.77	60.15	61.34
Primary completion rate, total (% of relevant age group)	77.23	81.10	74.36
Consolidated education expenditure, total (% of GDP)	8.94	11.32	12.78
Health			
Health expenditure per capita (PPP US\$)	109.23	120.10	141.36
Consolidated health expenditure, total (% of GDP)	8.55	7.98	10.07
Life expectancy at birth, total (years)	47.92	50.00	51.41
Mortality rate, infant (per 1000 live births)	102.10	89.30	80.80
Nurses and midwives (per 1000 people)	1.70		1.61
Physicians (per 1000 people)	0.28		0.40

Source: National Bureau of Statistics (NBS) and World Development Indicators (WDI)

basic education and healthcare which are important requirements for poverty and inequality reduction. These sectors are key instruments of excellence that liberate people from poverty and ignorance and hence when an investment is not made or is made ineffectively, the society losses.

Since the provision of basic education and health service are quite expensive, it then justifies the need for hard policy choices. Such hard policy choices can be influenced by critical information on public spending distributional outcomes (effectiveness) particularly the extent to which the poorest quintile (strata) benefited. Therefore, this study is aimed at providing such information that could lead to hard policy choices through the provision of answers to the following questions:

1. Are the distributional objectives in the education and health sectors being met by current spending pattern? In other words, can we confirm dominance in the right direction?
2. Can we conclude that there have been improvements in distributional outcomes which were the core issue that led to the 2004 education and healthcare reform?

These questions were tackled using evidence from primary education and healthcare as well as adult and special education services commonly known as basic social services in Nigeria.

2 A Snap Shot at Nigeria's Basic Education and Health Policies After the 2004 Reforms

The current Nigeria's National Policy on Education is anchored on Nigeria's philosophy on education as enunciated through the nation's objectives which include: a free and democratic society; a just and egalitarian society; a united strong and self-reliant nation; a great and dynamic economy; as well as a land of bright and full opportunities for all citizens (FRN 1999). All these are enshrined in the curriculum of the 6-3-3-4 educational system modelled after the American system of 6 years of primary education, 3 years of junior secondary school, 3 years of senior secondary school, and 4 years of university education (Nwagwu 2007). The current education policy dealt heavily on Universal Basic Education (UBE) which started in 1976 as Universal Primary Education (UPE). Due to the ineffectiveness of the straight 6-3-3-4 educational system, the current UBE programme has the first nine years collapsed under Basic Development (Early Childhood Care and Development, Primary and Junior Secondary) followed by another 3 years of senior secondary school, and 4 years of university education. In other words, a 9-3-4 system that provides free and compulsory education to every Nigerian child for nine (9) years continuously and a meal daily during the first 6 years. The goals here are the provision of functional literacy and numeracy, cultivation of positive attitudes that can lead to cooperation, community and continuous learning that support national development (Woolman 2001, Federal Republic of Nigeria 2004).

The senior secondary school is of three (3) years duration, and for adolescents aged between 14 and 18 years old. This is entirely financed and managed by the States' government except for the unity secondary schools financed and managed by the Federal Ministry of Education. Also contained in the policy are various basic education programmes like the nomadic education for the migrant ethnic groups such as the nomadic cattle rearing Fulani and Ijaw fishermen. The 2004 edition of the education policy which looks more dynamic than the previous versions stipulated an inclusive education to take care of children recognized as having special needs (special education) as well as adult education. This version is a result of the reform in the sector, with the objective of making education more functional and enables outputs employable and self-reliant. It equally aimed at proving the poor and the down trodden with the opportunity to benefit from the wealth of the nation. The policy sought also to encourage vocational and technical education that would be relevant to the needs of the society. The reform led to the passage of the compulsory, free Universal Basic Education (UBE) Act into law in 2004 that represents government's strategy to fight illiteracy and extend basic education opportunities to all Nigerian children.

Nigeria's Health Policy goal is to establish a comprehensive healthcare system, based on primary healthcare that is promotive, protective, preventive, restorative and rehabilitative to every citizen of the country with the available resources so that individuals and communities are assured of productivity, social wellbeing and enjoyment of living. It has social justice and equity, ideals of freedom and opportunity that have been affirmed in the 1999 Constitution of the Federal Republic of Nigeria as her underlining principles and values. It has the goal of a national health system that will be able to provide effective, efficient, quality, accessible and affordable health services that will improve the health status of Nigerians with same targets as the health targets of the Millennium Development Goals (MDGs).

The health policy recognizes that primary healthcare is the key to attaining the goal of health for all people and hence refers to primary healthcare as an essential healthcare based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families across communities. All levels of government are in agreement to co-operate to ensure primary healthcare for all citizens. Like the education policy, the national healthcare system is developed at three levels: primary, secondary and tertiary.

Basic healthcare is expected to provide general health services of preventive, curative, promotive and rehabilitative nature to the population as the entry point of the healthcare system. The provision of care at this level is largely the responsibility of Local Governments with the support of State Ministries of Health and within the overall national health policy. Private sector practitioners shall also provide healthcare at this level.

3 Conceptual, Analytical Framework and Methodology

Welfare distribution analysis is always defined in terms of the financial subsidy received from public resources, as distinct from volume of services delivered (education, health, etc.) or some other form of output measure. This has been successful in determining the progressive or regressive nature of government spending by looking at targeting. The study by Davoodi et al. (2010) as well as Chakraborty et al. (2013) using concentration curves provided a framework for public spending benefit analysis and targeting which was adopted by the present study. According to Davoodi et al. (2010), benefit incidence brings together the elements of the supply of and demand for public services and can provide valuable information on the inefficiencies and inequities in government allocation of resources for social services and on the public utilization of these services. Targeting is a means of increasing the efficiency of a program by increasing the benefits that accrue to the poor with a fixed program budget (Coady et al. 2004).

The combination of the cumulative plots of net fiscal incidence on a y-axis against the cumulative plots of per capita consumption-based population quintiles on an x-axis give rise to a concentration curve and the progressivity or regressivity of public spending could be interpreted by comparing the different benefit concentration curves. Comparing the concentration curves can indicate absolutely progressive or pro-poor when it is above the 45° line (inequality reducing); per capita progressive (or just progressive) meaning that households at the lower (upper) end of the income distribution receive at least an equal level of benefit as upper (lower) income households; regressive or not pro-poor i.e. if benefits are distributed more unequally (i.e. the concentration curve lies below the Lorenz curve). The neutrality in the benefit incidence is represented by the diagonal line (the 45° line). It captures the perfect equality in the distribution of benefits. When curves cross the diagonal line, no determination of progressivity or regressivity can be made using the Lorenz criterion.⁵ See Fig. 1 for details.

Analyzing effectiveness of public spending using welfare distribution tools is identical to testing fiscal policy performance with respect to reduction in poverty and inequality. A number of reasons can be cited as to why distributional outcomes from public resources are important for Nigerian government. Increasingly, the government is resorting to spending discretions to alleviate poverty and address equity objectives. In this respect the Nigerian

⁵ In such situations, one could resort to other criteria such as the Gini coefficient, Atkinson index, or generalized entropy measures for a complete ordering.

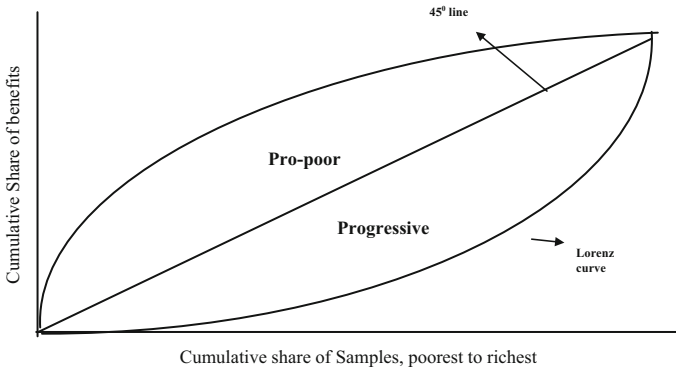


Fig. 1 Concentration curves and public spending benefit incidence

governments at different levels have come up with continuous increase in the amount of public resources channeled towards social and community services and establishing social investment funds for Universal Basic Education (UBE) and the National Health Insurance Scheme (NHIS).

Another factor that justifies welfare distribution analysis in Nigeria is the fact that households diverge in terms of their abilities to access and utilize social services. Most times it is households in the upper income echelons which may reap larger benefits from public spending programs. Such variations could stem from wide ranging factors as state derivation formula.⁶ Other factors such as urban bias in concentration of public services as well as possible tremendous opportunity costs incurred by poor households, say, in sending a child to a school or visiting a health centre can also lead to such variations.

Furthermore, the poor often are not sufficiently insulated from the adverse effects of budgetary cut backs. When reductions in total public sector budgets become a necessity due to situations as structural adjustments or shocks,⁷ social sector programs have been observed as the sectors that tend to shrink more. This point is stressed by Ravallion (2002) who pinpoints the need for safety net measures to alleviate the negative incidence impacts. Hence, the social welfare functions for Nigeria could be conceptualized as developmental challenges that aim to maximize a composite good of improved distributional outcomes that will help reduce poverty and boost growth with fiscal policy, among others, entering as a right-hand side argument. A mathematical representation of such types of social welfare functions can be defined using the Gini coefficient of inequality (G_y):

$$G_y = \frac{2 \text{cov}[Y, F(y)]}{\bar{y}} \quad (1)$$

where \bar{y} = mean income; $F(y)$ = normalized rank of a household in the distribution of income

Combining the Gini coefficient with mean income, the social welfare is then defined as:

$$W = \bar{Y}(1 - G_y) \quad (2)$$

⁶ In Nigeria different states and local governments get different allocation from the federation account (52.68 to the federal, 26.72 to the state and 20.60 to the local government).

⁷ A notable shock in Nigeria comes from her overdependence in oil revenue.

As such it can be readily shown that increases in average levels of income and reductions in inequality help improve social welfare. Since it affects both these variables, public sector spending impact on social welfare is obvious. The inverse relationships between inequality and social welfare have been established empirically by Sen (1976) and Yitzhaki (1982).

The social welfare function identified in Eq. (2) does have contextual relevance to Nigeria, perhaps expressed more so in its current economic blue print Vision 20:2020 "Encouraging massive investments in infrastructure and human capital". The country's fiscal policy has been serving these objectives in a number of ways. First, government is working hard to contain budgetary deficit at a lower rate to the GDP and by avoiding practice of deficit monetization to help create stable macroeconomic environment needed for sustained growth. Secondly, functional budgetary allocations is being rearranged⁸ improving to a large extent the shares of spending going to social services (education and healthcare in particular) and physical infrastructures. Third, decentralizing fiscal powers⁹ to state and local governments would improve public sector efficiency by enabling the economy to capitalize on local entities' informational edge.

Incidence of benefits for the study was computed by combining information about the *unit costs* of providing the publicly provided good with information on the *use* of these public goods. Mathematically, it was estimated by the following formula:

$$X_j \equiv \sum_i U_{ij}(S_i/U_i) \equiv \sum_i U_{ij}(S_i/U_i) \equiv \sum_i e_{ij}S_i \tag{3}$$

where X_j = sector specific subsidy enjoyed by group j ; U_{ij} = utilization of service i by group j ; U_i = utilization of service i by all groups combined; S_i = government net expenditure on service i ; and e_{ij} = group j 's share of utilization of service i .

Using the unit cost, the study calculated the benefit incidence and graphed concentration curves that show the cumulative distribution of total consumption plotted against cumulative participation in public education and healthcare services nationally across quintiles as well as by location (rural and urban) and by gender (male and female). The concentration curves are compared to the cumulative distribution of total consumption (often referred to as the Lorenz curve) as well as the 45° line (the line of equality). The Lorenz curve at p for a population subgroup k is given by:

$$L(k;p) = \frac{\sum_{i=1}^n SW_i^k y_i I(y_i \leq Q(k;p))}{\sum_{i=1}^n SW_i^k y_i} \tag{4}$$

where $I(y_i \leq Q(k;p)) = 1$ if $y_i \leq Q(k;p)$ and 0 otherwise and $Q(k;p)$ is the p -quantile of the subgroup k . Also the concentration curve for the variable T ordered in terms of y at percentile p and for a population subgroup k is:

$$C_T(k;p) = \frac{\sum_{i=1}^n SW_i^k T_i I(y_i \leq Q(k;p))}{\sum_{i=1}^n SW_i^k T_i} \tag{5}$$

where $I(y_i \leq Q(k;p)) = 1$ if $y_i \leq Q(k;p)$ and 0 otherwise and $Q(k;p)$ is the p -quantile of y for the subgroup k .

⁸ There is what is called a conditional grant transfers that allows state to apply for funding relating to social sectors and other MDGs activities. Every state is expected to provide some marching funds equivalent of whatever amount they applied annually. Education, healthcare, water and sanitation, etc. are the main activities such funds can be used to finance.

⁹ An ongoing issue with the parliament trying to amend the constitution to enable the last tier of government (local) have financial autonomy.

Dominance test in this study was primarily based on ranking the progressivity of benefits of categories of social expenditure (education and healthcare) across all levels (primary, secondary and tertiary). The tests evaluated the distribution of expenditure against two benchmarks looking at whether they are absolutely progressive (i.e. inequality reducing relative to welfare benchmark which is the 45° line), and if they are per capita progressive meaning that households at the lower (upper) end of the income distribution receive at least an equal level of benefit as upper (lower) income households. These tests were necessary because concentration curves are estimated from survey data and are therefore subject to sampling variability hence the need for statistical comparisons. It is true that visual inspection of a concentration curve in comparison with the 45° line or another concentration curve like the Lorenz curve (per capita expenditure/consumption) may give an impression of whether there is dominance but clearly this inspection may not be sufficient to conclude whether or not dominance is statistically significant. In order to make inferences about dominance, the standard errors of the concentration curve ordinates must be computed in addition to their point estimates.

Therefore, dominance tests in this study followed Sahn and Younger (1999, 2000) and O'Donnell et al. (2007) but in addition to accounting for the possible dependence between concentration curves, the current study used the covariance matrix for the ordinates estimates which was also used by Sahn and Younger (1999). This was to avoid the fact that statistical tests using only t tests for the difference between ordinates of two concentration curves at several abscissa (usually 0.1–0.9) leading to the rejection of the null hypothesis of non-dominance when one of the ordinates differs statistically in the direction of dominance as long as none of the other pairs indicates a statistically significant result in the opposite direction. This has happened commonly leading to the acceptance of the null hypothesis quite often and in effect has resulted to very little to conclude about the progressivity of categories of not only expenditures/consumption but taxes.

However, according to Sahn and Younger (1999), bounding the size of test at the risk of low power is consistent with standard econometric but failure to reject the null hypothesis leads to indeterminate result unless there is an establishment that the two curves cross and can be revealed by two significant differences in ordinates of opposite signs.

Besides the decision rule, the study noted that it is important to choose the number of quantile points at which ordinates are to be compared. If the number of comparison points is too restricted, then dominance across the full range of the distribution is not being tested. According to Howes (1996) it is difficult to find dominance at the extremes of distributions. With reasonably large samples, a popular choice has been to test for differences at 19 evenly spaced quantiles from 0.05 to 0.95¹⁰ as applied by (Sahn and Younger 2000; Sahn et al. 2000; and O'Donnell et al. 2007). Therefore the decision rule will be thus: Using 19 equally spaced ordinates from 0.05 to 0.95, the null hypothesis (non-dominance) is rejected in favour of dominance if all t statistics are greater than the critical value and of the same sign; or the null is rejected in favour of crossing if there are at least two significant t statistics with opposite signs. This means that rejecting the null on non-dominance using the above procedure implies that one distribution is preferred to the other under any social welfare function that favours progressivity.¹¹

¹⁰ See the cited papers for details.

¹¹ This method used is a demanding criterion especially in the light of low power of the test hence effort should be made to explore alternative like the use of extended Gini coefficients as an alternative means for stochastic dominance as used by Sahn and Younger 2000.

4 Data and Sources

The survey data for the study was primarily drawn from the NLSS 2003/2004, a welfare monitoring survey collected by the NBS in collaboration with the European Union and the World Bank. The data has 19,158 households with complete information out of the 22,000 households in the sample. The second wave of the household survey called the Harmonized Nigeria Living Standard Survey (HNLSS) 2009/2010 an enlarged scope of previous National Consumer Surveys and also a follow-up to the Nigeria Living Standard Survey (NLSS) 2003/2004 was used for the study. The scope of the HNLSS 2009/2010 was enlarged to include: Demography; Health and Fertility behaviour; Education and Skills/ Training; Employment and Time-use; Housing and Housing Condition; Social Capital; Agriculture; Household Income and consumption, and Expenditure. The two waves of survey were used to graph the concentration curves employed in comparing if there has been a change in the distributional impact of public spending.

Information from the surveys were also collected on individual basis for education and healthcare issues and further disaggregated by gender in 2004 and 2010 waves. Here access to education and healthcare were chosen for analysis taking into account their close correlation with welfare status of households. The data contained information on households' total expenditure and households' expenditure on education and healthcare. Data from the survey was disaggregated into gender (male and female) and location (rural and urban) for both waves. Brief descriptive statistics of key variables for the two waves are presented in Table 2. There were some inconsistencies in the data and to partially overcome this problem, the study assumed that service access rates for each household group (quintile) in a specific zone overlaps with corresponding rural or urban patterns. This was certain to compromise the degree of analytical insights and policy derivations, which otherwise would have been achieved, by masking existing access differences among local administrations. Apart from the two waves of the survey data, data from secondary sources such as the total actual revenue and expenditures on education and health across local government, states and the federal levels sourced from the Federal Ministry of Finance, the Central Bank of Nigeria (CBN) and the National Bureau of Statistics were used.

5 Results, Findings and Discussions

Concentration curves were graphed using the method highlighted above and these curves were subjected to dominance tests following the enumerated approach to ascertain statistical significance of these curves (dominance). The ordinates of these curves were used for the welfare dominance tests. All used concentration curves are presented in the annexes as Fig. 2a, b (primary education and healthcare); Fig. 3a, b (primary education and healthcare by gender); as well as Fig. 4a, b (primary education and healthcare by location). A visual inspection of the concentration curves may have said something differently from the statistically tested results. Table 3 shows the dominance tests results for basic social services (education and healthcare) relative to the Lorenz curve and the 45° line in Nigeria generally and by gender, and by location.

The dominance tests results were for Nigeria using the two household data sets (2003/2004 and 2009/2010 waves) following the process and method explained above. This was to ascertain whether social services (education and healthcare) at primary level by gender and location were:

Table 2 Descriptive statistics

Variable	Number of observation	Mean (N)	SD
2003/2004			
Household size	19,158	4.83	2.908539
Per capita expenditure	19,158	31,894.75	40,538.26
Urban	4646		
Rural	14,512		
2009/2010			
Household size	73,329	6.02	1.061198
Per capita expenditure	73,329	53,533.12	22,460.69
Urban	20,035		
Rural	53,294		

Source: Author's

- Absolutely progressive (i.e. the concentration curve is above 45° line implying that the poor receive more benefits than the rich (pro-poor distribution);
- Progressive (i.e. the concentration curve is above the expenditure distribution (Lorenz curve), implying that the poor benefit more in relative terms);
- Regressive (i.e. the concentration curve is below both the 45° line and the Lorenz curve, implying that the rich benefit more than the poor; and
- Whether there has been any significant changes made over the period 2004–2010.

5.1 Primary Education and Healthcare

Primary education in Nigeria is provided by elementary schools across the country. This is the foundation laying stage for education and includes the Early Child Care Development (ECCD) and primary education. Likewise, primary healthcare services are provided by health centers, clinics, dispensaries, maternities, etc. At this lower level, the states and LGAs share responsibility for education and healthcare. The LGAs provide basic health services and manage the primary healthcare facilities which are normally the first contact with the health system. Nigeria has about 54,434 public primary schools with 24,422,918 pupils in all the primary schools (13,302,269 or 54.5 % males and 11,302,269 or 45.5 % females) in 2010. There were about 2.02 million children in pre-primary schools and approximately 16,723 public primary healthcare and 9000 private primary healthcare centres across the country.

Study results and findings as shown in Table 3 suggests that the direction of benefit for primary education was absolutely progressive for urban residents in 2010 contrary to absolutely progressivity for national and both sexes (male and female) in 2004. Similarly, primary healthcare findings suggest that the direction of benefit was absolutely progressive for only urban residents while the direction of benefit for both sexes, national and rural residents were just progressive implying that the poor benefits equally with the rich or the poor benefit more in relative terms than the rich. The drop from absolute progressivity in 2004 to just progressive in 2010 for primary education is worrisome considering the total resource that have been committed to the UBE program by the different tiers of government though one needs not be surprised given the drop in net primary enrolment from

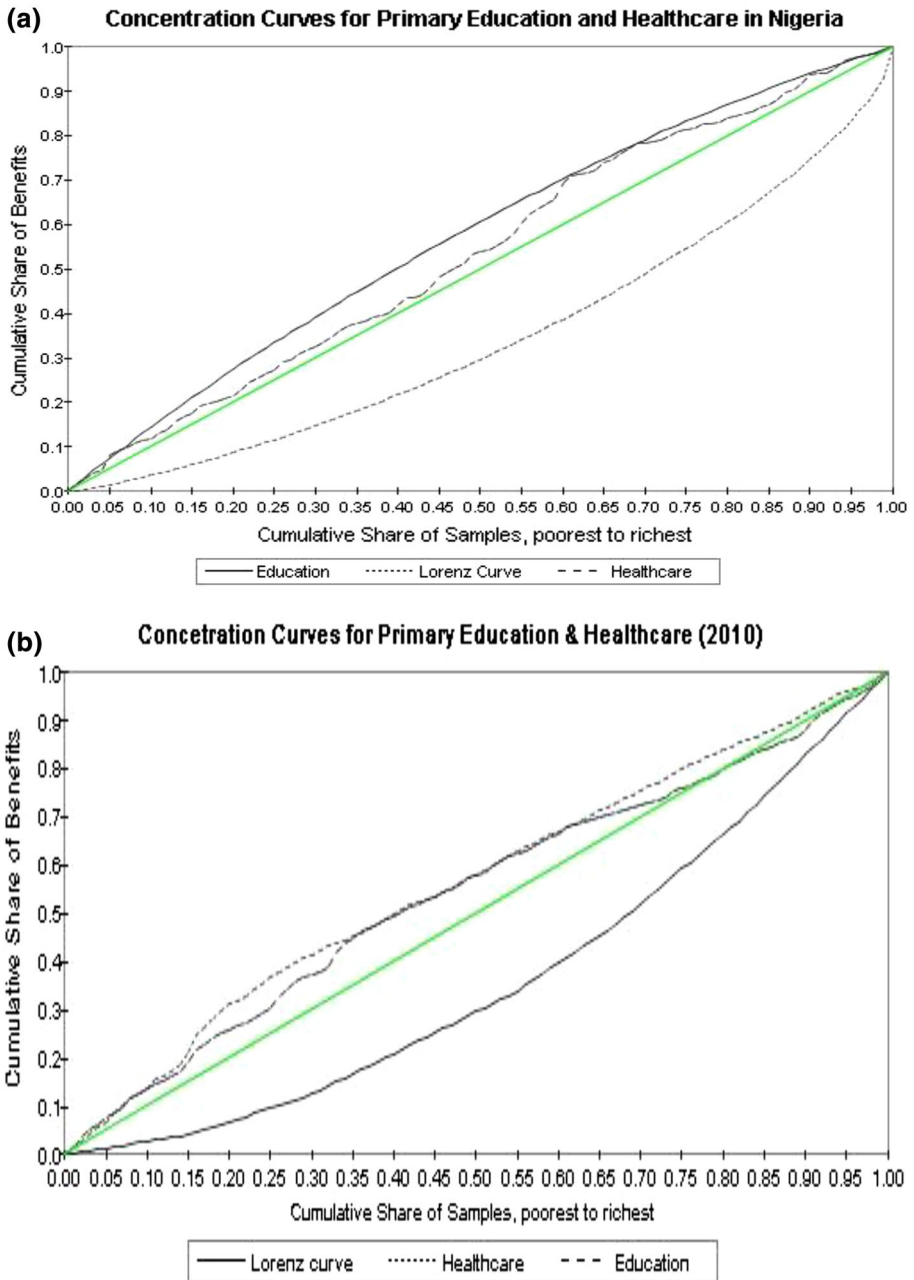


Fig. 2 a, b Concentration curves for primary education and healthcare in Nigeria pre and post reform

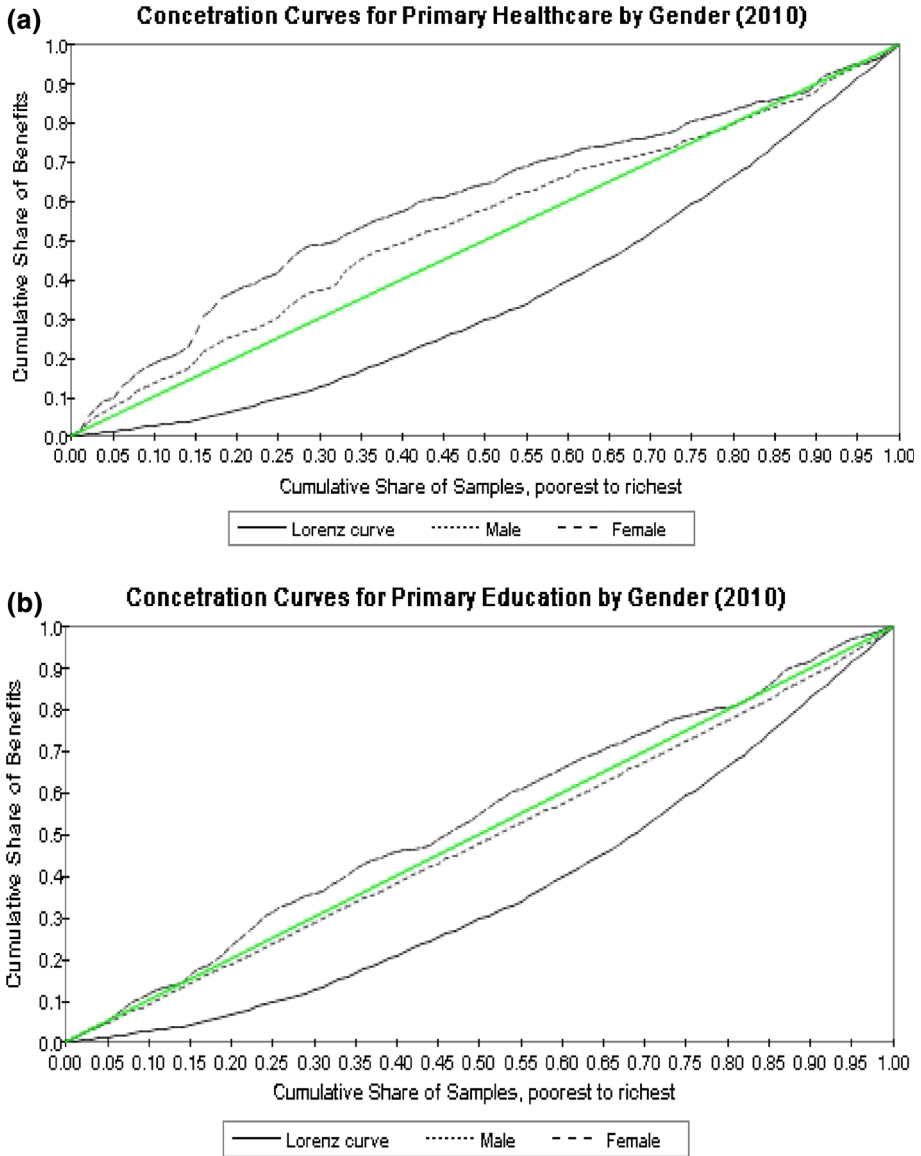


Fig. 3 a, b Concentration curves for primary education and healthcare in Nigeria by gender

65.60 % in 2003 to 57.55 % in 2010¹² and drop in primary completion rates from 77.23 to 74.36 %. Most of these children of primary school age who are out of school [about 5,487,901 females and 5,045,204 males (10,542,105 in totals)] are from the poorest households that live in rural communities across Nigeria.

¹² Data for net primary enrolment, children out of school as well as primary completion rates are from World Development Indicators (WDI) assessed on February 14, 2013.

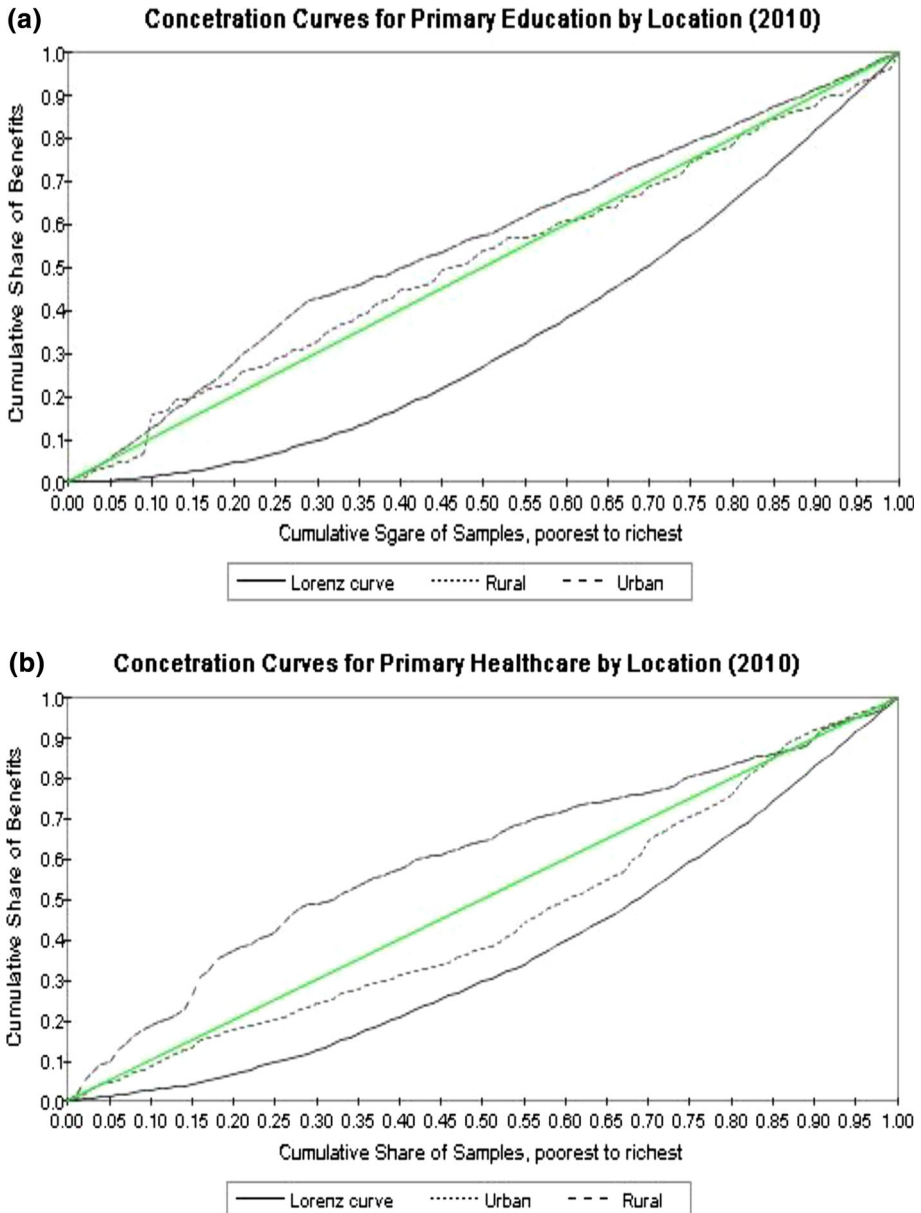


Fig. 4 a, b Concentration curves for primary education and healthcare by location in Nigeria

It is noteworthy that the absolute progressivity of urban primary education and healthcare as portrayed by the result says nothing about quality or standard of services provided just as it fails to capture anything about households' choices. It is possible that richer urban households' may not have benefited much from public primary education and healthcare because they consider these services sub-standard and hence may have turned

Table 3 Dominance tests results for social services (Education and Healthcare) relative to the Lorenz curve and the 45-degrees line in Nigeria (2003/2004 and 2009/2010 Household data sets)

	Primary education		Primary healthcare		Adult education		Special education	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
2003/2004 data set								
National	+	+	+	X	NA		NA	
Male	+	+	+	X	NA		NA	
Female	+	+	+	X	NA		NA	
2009/2010 data set								
National	+	X	+	-	+	-	+	-
Male	+	-	+	X	+	-	NA	
Female	+	X	+	-	+	X	NA	
Rural	+	X	+	X	NA		NA	
Urban	+	+	+	-	NA		NA	

If the curves are statistically insignificant from one another, the corresponding cell is blank

(1) Compares the column's concentration curve with the Lorenz curve for per capita household expenditure

(2) Compares the column's concentration curve with the 45° line

'+' indicates that the benefits from the column's service are more concentrated among the poor than per capita expenditure (Lorenz curve) (for (1)) or an equal per capita distribution (for (2))

'-' indicates that the service is less concentrated among the poor

'X' indicates that the concentration curves cross

'NA' indicates not available

Source: Author's

attention to private primary schools and healthcare outfits for an improved services for their different families.

The above findings using the 2010 survey data though in line with the results of Yuki (2003) for Yemen for primary education and healthcare run contrary to the findings from the study by Heltberg et al. (2003) in Mozambique where public primary education and healthcare services provision were found to be absolutely progressive and an exceptional case for many other African countries. The findings for Nigeria may also suggest poor targeting of public resources all other things remaining constant and not cheery news for the education reform program.

5.2 Adult and Special Education

Adult and non-formal (special) education has been neglected after the implementation of the Third National Development Plan (1975–1980) in Nigeria. Successive administrations felt the process of revitalising adult and non-formal education will be tedious and complicated hence the continuous neglect until the 2004 educational reforms. The latest reform sees adult and non-formal education as processes of national development that will get the adults, either as individuals or as a group, to learn and through learning have attitudinal and behavioural changes. The resultant of the reforms was to put in place several programs

including: the basic literacy program;¹³ post literacy program;¹⁴ women adult education program;¹⁵ distance education program;¹⁶ sandwich program;¹⁷ and nomadic education program.¹⁸ About 500,000 illiterate adults are currently enrolled in non-formal education and 450,000 children in nomadic schools received lectures as at 2010.

Findings from this study indicate progressive general benefits for adult education and by gender (male and female) as well as progressive general benefits for non-formal (special) education. This may be good news considering the fact that adult and non-formal (special) education were neglected for decades. It is equally noteworthy that such findings said nothing about the quality and standard of education in the assumed revitalised adult and non-formal (special) education. Adult and non-formal education can have a huge influence on the quantity and quality of education in the formal system if designed and executed properly and is very necessary in ensuring a pool of enlightened government and citizenry. Efforts geared towards this will no doubt improve peoples' reasoning and orientation which will ultimately affect their insights, activities and decisions towards the achievement of national goals.

Looking at the above findings, it is necessary to highlight what should be driving government spending on key social services such as education and healthcare. According to Wilhelm and Fiestas (2005), government spending is driven by the general objective of positively affecting growth and/or poverty reduction as a result of improved provision of basic social services as well as agriculture and infrastructure access. To achieve this objective largely depends on specific issues and conditions within a country. Literature suggests that two outstanding variables which could hamper or improve public spending outcome are the role of regulatory framework and private sector interventions because of their effect on service provision level to the poor.

There have been divided opinions and findings on the relationship between public spending and economic performance but we have to note that most economists are in agreement that in some circumstances, lower government spending would enhance economic growth and in some other circumstances, higher government spending would be sought-after. Therefore, the connection between economic growth and government spending runs in both directions. Higher growth is expected to lead to improved sectoral outcomes (better schools, health indicators, road access, etc.) while enhanced sectoral outcomes will correspondingly lead to superior growth (in particular investment in education and infrastructure is associated with higher growth rates). Looking at the theoretical

¹³ A 1-month programme organised and financed by some Local Government Councils in some states of the Federation and held under the co-ordination and supervision of the States' Ministries of Education.

¹⁴ This is organised by the Ministry of Education in some States of the Federation for completers of Basic Literacy Programmes and drop outs from formal primary schools to upgrade their knowledge to the level of first school leaving certificates.

¹⁵ This is organised by Christian Missionaries and Local Government Councils. The Ministry of Education grants aid to the voluntary organisations to reduce costs. The course is solely designed to improve the services of literate and illiterate women in the society.

¹⁶ This is organised by the States' Ministries of Education and some institutions of higher education designed for those who because of the nature of their age are unable to enroll in the regular or formal educational system. The medium of instruction is by correspondence, radio or television. The federal distance education program is the National Open University (NOU).

¹⁷ This is organised by various institutions of higher education in the country for adults who stay in other commitments for most of the year and come into residence in their various schools when they can afford it.

¹⁸ Nigerian nomads are mostly cattle rearers who do not settle in a place because they have to follow their herds of cattle around in search of grazable pasture. They do not receive formal education. Mobile Education Programme has been established to take care of this unfortunate situation.

underpinnings of public spending effects, it is necessary first to look at the drive or motive and its linkages with economic growth, poverty and inequality reduction for it to have the desired effect on distributional outcome.

Empirical studies using welfare distribution tool like benefit incidence analysis have assessed the theoretical assertion between public spending in social services and infrastructure and their effect in improving social outcomes. Such studies have found mixed results in different countries especially developing and less developed economies. In some of these countries public spending in social services improves social outcomes while in some other economies, the reverse is the case. Looking at these different studies Wilhelm and Fiestas (2005) as well as other studies summarized what explains the variable impact of spending on outcomes as follows:

- Good governance both with respect to budgetary planning and execution is essential to increasing the impact of public expenditures on sector outcomes and more broadly on growth and poverty reduction;
- A possible explanation determining the link between public spending and development outcomes is the importance of complementarity and sequencing of spending packages;
- Spending priorities may also change over time, as intermediate outcomes are achieved; and
- It has to be kept in mind that factors other than spending can affect public service provision and delivery.

On the other hand, there are three main arguments in the literature on distributional outcomes of public spending summarised as follows:

- Dissatisfaction with distributional outcomes in the absence of intervention: Even a well-functioning market economy can result in too much poverty and inequality according to prevailing social norms.
- The lack of alternative policy instruments: In developed countries, the tax system provides an additional redistributive device to promote equity but in developing countries, where comprehensive income taxes are generally not a viable option, the tax system is much less useful in this task and hence public spending's role in redistribution becomes much more vital.
- The need for fiscal restraint and the sharp trade-offs which it makes governments face.

6 Policy Implications and Conclusions

The argument of spending more or less is enshrined in what Tinbergen (1952) referred to the "maximalisation of the ordinary ophelimity functions". This in simple terms means the maximization of the behaviour of different groups bearing in mind that the choice of the instruments which should be used to execute the maximization cannot be separated from the targets. In the case of Nigeria and some other developing countries, public spending is one instrument that has been chosen to maximize satisfaction of different groups but achieving the targets has been difficult. It should be noted that the size of government expenditure (public spending) has a major impact on economic performance, but it is just one of many important variables. *The Index of Economic Freedom*, published annually by The Heritage Foundation and *The Wall Street Journal*, in 2005 thoroughly examined the factors that are correlated with prosperity, finding that other policy choices also have

important effects independent of the level of government spending. It is true that a developing country like Nigeria needs to spend more on education and healthcare at least to what she can afford. That should not undermine the importance of efficiency and effectiveness of spending if the overall goal of these spending is to be realised at the end of the day.

Wagstaff and Claeson (2004) noted that strengthening policies and institutions in the sectors requires working across several interrelated areas. This brings to the fore the fact that reforming and increasing government spending requires strong institutions (which is not so for Nigeria currently) that work across several interrelated areas. The duo continued by suggesting that stronger polices and better institutions require lowering financial and non-financial barriers that households face in the dual roles as producers and users of these facilities. Therefore, for policy to be complete and inclusive, the provision of public services should be viewed as collaboration between governments, on the one hand, and the households on the other with a two-way flow of information. Such information flow will have government constantly 'listening' to households and households, in turn, being informed of government's objectives and their rights under explicit contracts or covenants. The big concern here is with one dimension of the information flow: how can governments be informed about the needs and behaviour of their clients, especially the poor? How can they indeed be aware of who benefited from public spending? Findings from this study are suggesting that those that benefited from the spending so far to a large extent may not be the target population and hence public spending in these two sectors (education and health) cannot be adjudged as effective.

The recent discovery of 45,000 *ghost* workers through the deployment of the Integrated Payroll and Personnel Information System (IPPIS) across key sectors including education and health is a telling indicator of wrong targeting. Such discovery also imply that over 40 % of these sectors personnel costs have been over-bloated and not meant for real and existing human beings. Therefore, the remuneration of these *ghosts* with the fat emoluments of some political office holders says a lot towards achieving efficiency and making any form of progress. Onyekpere (2013) opined that with such situations and several other Nigeria's peculiar issues, every additional allocation is still subjected to the grand old corruption and inefficiencies which reduce it further to a pittance.

Education and healthcare reforms in Nigeria may not have been effective as expected because the focus was on policy without looking at the strength of the sectors institutions and other several interrelated areas including the priorities in the funding pack. The study by Amakom and Onyekpere (2013) found no synergy between government plans and budgets (expenditure) in several dimensions and hence recommended that projects that have been identified must be justifiable as priorities under the Development Agenda. This implies that budget crafting in the executive and legislature must be guided by relevant priority documentation.

Project costs should be realistic and not inflated as evidenced by several reviews. Whenever project timeframes are determined, planners should take cognizance of weather and other natural conditions. These will help reduce time overruns for projects (Farrell 1957). Currently, there are no standard codified rules and guidelines regulating the relationship between government agencies and contractors in contract execution. The legislature may consider the enactment of a *Contract Execution Act* which will detail the general rules and guidelines for contract execution and guides the relationship between agencies and contractors for effective service provision.

The Public Procurement Act (PPA) appears to regulate proceedings up to the award of contract and thereafter, the parties are left to their respective agreements which most times

are skewed against the government. There is the need to devote serious effort to surveillance, monitoring and evaluation to improve efficiency and effectiveness in Nigeria's education and health sectors.

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