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NIGERIA
Socio Economic Assessment[1]

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Poverty Reduction and Economic Management, AFTP3
AFCW2
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[1] The analysis in this study extends beyond basic socioeconomic indicators to cover a fairly standard set of human development indicators (many of which are MDG indicators). The term "socioeconomic progress" is therefore used interchangeably with "human development" in this document.

Currency Equivalents

(Exchange Rate Effective December 31, 2010)

Currency Unit	=	Nigerian Naira (NG)
NG1	=	US$0.0067
US$1	=	N149.17

Fiscal Year

January 1 to December 31

Abbreviations and Acronyms

GDP	Gross Domestic Product
GSM	Global System for Mobile Telecommunications
UNDP	United Nations Development Program
MDG	Millennium development Goals
PER	Public Expenditure Review
PEMFAR	Public Expenditure Management and Financial Accountability Review
PEFA	Public Expenditure and Financial Accountability
HNLSS	Harmonized Nigeria Living Standards Survey
NDHS	Nigeria Demographic and Health Survey
GSDP	Gross State Domestic Product
IGR	Internally Generated Revenues
GSM	Global System of Mobile Telecommunications
MICS	Multiple Indicators Questionnaire Survey
HIV	Human Immuno-Deficiency Virus
AIDS	Acquired Immune Deficiency Syndrome
ITN	Insecticide-Treated Net
ACT	Artemisinin-Based Combination Therapy

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EXECUTIVE SUMMARY

1. **This report assesses the progress Nigeria has made in improving the socioeconomic conditions of its citizens during the recent period of high economic growth and significant oil revenues.** Following an analysis of national-level socioeconomic outcomes, the study attempts to explore the public expenditure channel of the economic growth-human development nexus, using nine states as case studies. The states covered were Anambra, Bauchi, Bayelsa, Edo, Ekiti, Kaduna, Kogi, Lagos and Rivers. This state-level analysis is done because the study recognizes the fact that state governments in Nigeria constitutionally have greater responsibility for service delivery in the main socioeconomic areas like primary healthcare and basic education.

2. **Data from the most recent Nigerian Living Standards Survey were used for the analysis of socioeconomic conditions, complemented by other data sources.** The Nigerian Living Standards Survey is the largest household survey in Nigeria that captures data and information on living standards of Nigerians. The other data sources used include the Nigerian Demographic and Health Surveys of 2003 and 2008 and the Multiple Indicators Cluster Survey of 2007. Fiscal data from previous PEMFAR/PER/PEFA work done by the World Bank with states were used for the analysis of states' public expenditure. Unfortunately, state-level socioeconomic data from previous years (to enable a comparison of outcomes across years) were sparse. Thus, only a cross-sectional comparison amongst states was possible.

3. **The analysis found that overall, many socioeconomic outcomes in Nigeria have improved over the last few years, but not at a fast-enough pace.** Economic growth averaged 9.2 percent over the period 2001-2009, driven mainly by the non-oil sectors of telecommunications, wholesale and retail trade, agriculture, solid minerals and building & construction. At the same time, during these years, government revenues (mainly from oil) multiplied during this period, and expenditure also soared: oil revenue grew by 65 per cent and general government expenditure, by 78 percent, in real terms, between 2001 and 2008. However, even though Nigeria made good progress on many socioeconomic/human development indices, many of the MDGs may not be met by the target year of 2015. For example, while infant and under-five mortality rates have improved from 100 and 201 per 1,000 live births, respectively in 2003 to 75 and 157 per 1,000 live births, respectively, in 2008, they are still far from their respective 2015 targets of 30.3 and 63.7 per 1,000 live births. Also, Nigeria lags far behind many other major developing countries in Africa in terms of socioeconomic indices.

Key MDG Indicators: Nigeria and Selected Developing Countries in Africa*

	Net Primary Enrollment Rate[1]	Youth Literacy Rate[2]	Access to Improved Sanitation[3]	Under-five mortality rate[4]	Infant Mortality Rate[5]	Maternal Mortality Ratio[6]	Births attended by Skilled health personnel[7]
Nigeria	57	72	32	143	86	840	39
Algeria	94	NA	95	34	29	120	95
Botswana	87	95	60	59	43	530	95
Ghana	76	80	13	69	47	410	57
Kenya	83	93	31	86	55	600	63
South Africa	85	98	77	65	43	190	NA

Source: World Development Indicators, 2010

*Data are as of 2009 unless otherwise stated.

[1]Data for Nigeria is from the NLSS; for Botswana is for 2007. [2]NLSS records 70.7 for Nigeria; South Africa data is for 2007. [3]Algeria is 2008; NDHS records 31.2 for Nigeria in 2008. [4]Data is for 2008; NDHS records 157 for Nigeria in 2008. [5]NDHS records 75 for Nigeria in 2008; [6]Algeria is 2008; NDHS records 545 for Nigeria in 2008. [7]Data for Algeria and Kenya are 2006; Botswana, 2007; Ghana and Nigeria, 2008. HLSS records 46 percent for Nigeria in 2009.

4. **A disaggregation of Nigeria's socioeconomic indicators by geo-political region and state reveals that many of the states in the north east and north west lag far behind on many of the health and education MDGs**. Indeed, if Nigeria will make good progress on many of the health and education MDGs, concerted effort would need to be made in these two geopolitical zones in particular. For example, simulations indicate that if net primary enrollment in each of these two zones increases from 39.2 and 37.2 percent, respectively, to about 68 percent (which is the average enrolment rate in the other four zones), the overall net enrollment rate for Nigeria would increase to 70 percent from 57 percent. Also, if the proportion of childbirths attended by skilled health workers in each of these two zones increases from 19 and 21 percent, respectively to about 70 percent (which is the average for the four other zones), the national performance on this indicator would rise to about 70 percent from the 46 percent recorded in 2009.

5. **Comparing socioeconomic outcomes with public expenditure patterns at the state level, correlations were generally weak, but with some exceptions.** Using scatter plots to depict the relationships between per capita expenditure and socioeconomic outcomes in selected states, seemingly strong positive correlations were found in Kaduna, Bauchi, Edo and Lagos for health; and Bauchi, Kaduna and Ekiti states for education. In health, Kaduna and Bauchi states, which had very low per capita health expenditure, also had the worst health outcomes; while Edo and Lagos states which had relatively high per capita health expenditure, showed relatively superior outcomes. However, there was one striking deviation from this pattern - Ekiti state - which had about the same relatively low level of per capita health expenditure as Bauchi state (a little less, even), had about the best health outcomes. Also striking was the case of Rivers state, which though had the highest per capita health expenditure levels, showed relatively inferior health outcomes. In education, Bauchi and Kaduna states had the lowest real per capita education expenditure and also the worst education outcomes, while Ekiti had next to the highest real per capita education expenditure and about the best outcomes. A rather striking deviation from this pattern was Rivers state, which had the highest per capita education spend, but did not record superior education outcomes. Indeed, it had one of the lowest primary school enrolment ratios.

6. **There are thus indications of other factors outside the quantum of social expenditure which affect human development outcomes and Ekiti, Bayelsa[2] and Rivers states present cases for further analysis in this regard.** The fact that the relationships as depicted by the scatter plots were not fully linear is an indication that there are other factors that also affect outcomes other than public expenditure. Ekiti state was a major outlier in health, denoting that there are other factors in Ekiti state that affect health outcomes. Indeed, of all the states examined, Ekiti state received about the lowest revenue, had the lowest per capita health expenditure level, but had superior outcomes in both health and education. Rivers state was another major outlier which received the highest revenues, had the highest per capita health and education expenditure levels, but recorded less than superior outcomes. Both states (as well as Bayelsa state) thus present cases for further analysis in the relationships between revenue, expenditure and human development outcomes. It seems safe to assume that issues of public

[2] Bayelsa state was removed from the scatter diagrams because it was an extreme outlier with its average per capita expenditure more than four times that of Rivers state (which had the second highest per capita expenditure).

expenditure efficiency would play an important role in determining outcomes, although this has not been evaluated in this study.

Ten Striking Findings From The Study

1. High per capita social spending does not necessarily translate into superior socioeconomic outcomes in Nigerian states; neither does low per capita social spending necessarily result in poor outcomes. For example, of all the case study states, Ekiti had about the lowest per capita health expenditure yet it had relatively superior health outcomes. Whereas, Bayelsa[3] and Rivers states, with the highest levels of per capita health expenditure, had relatively weak health outcomes.
2. There are strong regional disparities in socioeconomic outcomes in Nigeria, with the southern region of the country doing much better than the northern region in many respects. More specifically, states in the north east and the north west geo-political zones of the country lag far behind other zones on many of the health and education MDGs.
3. Nigeria lags behind other major developing countries in Africa on most of the MDGs.
4. Most child births in Nigeria are attended by traditional birth attendants and other unskilled persons. This is especially true for the north east and north west zones of the country.
5. The usage rate of insecticide-treated bed nets as a malaria preventive measure among children under five as well as among pregnant women, improved dramatically between 2009 and 2010 – increasing by as much as 22 and 28 percentage points, respectively within the one-year period.
6. The youth HIV prevalence rate of 4.1 percent implies that about 1.3 million young people aged 15-24 in Nigeria are infected with the HIV.
7. While in the south east region of the country, more boys tend to drop out of schooling; such that by the tertiary education level, there are more females than males in school; in the northern region – most especially the north east - more girls tend to drop out of schooling, such that by the tertiary level, there are by far, less females in school than males.
8. The national primary school enrollment rate of 57 percent implies that almost 10 million children between the ages of 6 and 11 who are meant to be in primary school in Nigeria are out of school.
9. Based on the 12-month reference period, Lagos, Bayelsa and Rivers have excessively high youth unemployment rates – up to 40 percent.
10. The youth labor force participation rate is considerably higher in the rural than in the urban areas; suggesting the existence of a larger cohort of discouraged job seekers in the urban areas.

[3] Bayelsa state was removed from the scatter diagrams because it was an extreme outlier with average per capita expenditure of more than four times that of Rivers state (the state with the second highest per capita expenditure levels).

CHAPTER 1: CONTEXT

A. INTRODUCTION

1.1 **Economic growth enhances a country's potential to improve socioeconomic conditions, or more broadly speaking, human development**. This is because economic growth, by increasing the total wealth of a country, provides the resources required to permit sustained human development improvements. The translation of GDP growth to human development is however not automatic, but depends largely on the level and nature of employment creation for households, as well as the level and patterns of government expenditure. The UNDP in its 1991 Human Development Report suggested that the best way to ensure a close link between economic growth and human well-being is to ensure that growth is employment-intensive, thereby increasing income-earning opportunities; and by properly directing public spending towards human priority needs.

1.2 **Nigeria has experienced robust economic growth since 2001; however, the pace at which this has impacted the socioeconomic conditions of the larger Nigerian populace appears relatively slow.** Indeed, many socioeconomic indicators appear to be improving, but Nigeria may not achieve many of the MDG targets by the year of 2015. Also some indicators have worsened, albeit a few. Nigeria's annual real GDP growth averaged 9.2 percent between 2001 and 2009 (compared with an average of 2.5 percent in between 1995 and 1999) and non-oil growth, which has been the driving force behind the robust growth, averaged 9.0 percent over the same period. Oil revenues accruing to the consolidated government also increased by 65 percent in real terms between 2001 and 2008 while consolidated government expenditure increased by an even greater 78 percent, also in real terms. Correspondingly, many socioeconomic indices like infant and child mortality rates have improved; however, there is still a considerable distance of these indices from the MDG targets. Also, Nigeria lags behind many comparator countries in Africa in terms of socioeconomic indices.

1.3 **The seeming failure of Nigeria's economic growth to translate into comparably rapid gains in human development may have been due to weak employment creation as well as sub-optimal patterns of public expenditure.** Indeed, Nigeria's growth in the last couple of years has been variously described as "jobless growth". The 2009 World Bank Employment and Growth Study which assessed the impact of Nigeria's recent high economic growth on employment generation found out that despite strong growth of Nigeria's non-oil economy, unemployment (particularly youth unemployment) did not fall between 1999 and 2006. While jobs seemed to have grown in proportion with the labor force, most were created in family agriculture. This led to income growth and declining rates of rural poverty, but wage employment actually declined. The 2009 data corroborated the evidence on this pattern of employment creation in Nigeria. In terms of public expenditure, governments at all levels have usually devoted the bulk of their resources to administrative costs at the expense of human development.

1.4 **Nigeria's economic transformation agenda (Vision 20:2020) places the socioeconomic well-being of Nigerians at the fore-front of the agenda.** The blueprint recognizes that there is a gap between the country's economic growth and human development

progress and seeks to address the gap. One of the two broad objectives of NV 20:2020 is to translate economic growth into equitable social development or improvements in well-being for all citizens. Based on this objective, the Vision intends to eradicate extreme poverty and hunger, enhance access to quality healthcare, provide sustainable access to potable water and basic sanitation, promote gender equality and empower women, among other things.

1.5 **The main objective of this study is to assess the progress Nigeria has made in improving the general living standards of its citizens in the context of recent high economic growth and substantial oil revenues.** In particular, it explores the public expenditure channel of the economic growth-human development relationship. Under Nigeria's federal system of government, the state governments have greater responsibility for service delivery in the main human development areas of basic education and literacy, primary healthcare, reproductive health, nutrition, safe drinking water and sanitation; thus, the public expenditure patterns of state governments are examined vis-à-vis state-level socioeconomic outcomes in a bid to establish any correlations. Due to lack of comprehensive fiscal data for all the 36 states in the federation, nine case study states were selected from the handful of states where the Bank has recently conducted PER/PEMFAR/PEFA work and thus, has relatively comprehensive fiscal data. Socioeconomic outcomes are based on data from various household surveys conducted over the few years, largely the HNLSS 2009 and the NDHS 2008. It is the hope that findings from the study would be useful for informing evidence-based policy actions at the state-level, and possibly at the federal level of Government in Nigeria.

1.6 **The Report is structured into four chapters; including this introductory chapter.** This initial chapter reviews Nigeria's growth experience and the evolution of employment, as well as revenue and expenditure trends of the consolidated government in order to contextualize the assessment of socioeconomic conditions in the country. The second chapter presents the socioeconomic outcomes in Nigeria, disaggregated by gender, rural/urban residence, geopolitical zone and state; while the third chapter tries to uncover any relationships that exist between the public expenditure patterns in selected states and their socioeconomic outcomes. The last chapter concludes the study.

B. NIGERIA'S ECONOMIC GROWTH EXPERIENCE (2001 - 2009)

1.7 **Economic growth in the last decade was very rapid, in striking contrast to the previous decade.** Driven by the expansion of the non-oil sector, real annual GDP growth averaged 9.2 percent over the period 2001-2009, in contrast to the 2.5 percent recorded in the last half of the 1990s. The non-oil sector grew at an annual average of 12 percent, while the oil sector, in contrast, recorded very low growth or even contracted in some years, especially since 2004. This was due to the prolonged interruptions to production as oil installations were severally vandalized by indigenes of the oil-producing Niger Delta region as they agitated for greater control of oil resources. Nigeria is currently ranked amongst the fastest growing economies, globally.

1.8 **Growth in the earlier part of the decade was more rapid than in the latter part**. Real GDP averaged 11.4 percent between 2001 and 2005, but slowed to an average of 6.4 percent during the latter period of 2006-2010. Oil GDP which grew at an average of 5.5 percent during

2001 – 2005 contracted by 3.9 percent during 2006-2010. Also, the non-oil sector grew by an average of 14.3 percent between 2001 and 2005 but by 9.1 percent over 2006 – 2009.

Table 1 : Real GDP Growth Rates (Percent)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Real GDP	**8.5**	**21.4**	**10.2**	**10.5**	**6.5**	**6.0**	**6.5**	**6.0**	**7.0**
Oil GDP	**5.6**	**-5.7**	**23.8**	**3.3**	**0.5**	**-4.4**	**-4.5**	**-6**	**0.5**
Non-Oil GDP	**9.8**	**33.9**	**5.8**	**13.2**	**8.6**	**9.4**	**9.5**	**9.0**	**8.3**
Agriculture	3.9	55.2	7.0	6.3	7.1	7.4	7.2	6.3	5.9
Manufacturing	7.0	12.0	5.7	10	9.6	9.4	9.6	8.9	7.9
Solid Minerals	16.6	-1.7	5.4	17.6	9.5	10.3	12.8	12.8	12.1
Wholesale & Retail Trade	2.5	6.5	5.8	36.7	13.5	15.3	15.2	14	11.5
Building & Construction	12.0	4.3	8.8	-6.8	12.1	13.0	13.0	13.0	12.0
Telecommunications	1056.2	24.4	26.9	58.9	30.5	34.6	34.6	34.7	34.7
Finance & Insurance	4.5	29.4	-9.6	2.7	2.9	5.0	5.0	4.8	4.0

Source: National Bureau of Statistics

1.9 **All the non-oil sub-sectors grew rapidly, with the telecommunications sub-sector growing the most.** The telecommunications sector grew by an annual average of over 100 percent during the period, emerging from a very low base. The accelerated growth in telecommunications was due to the reforms within the sector which led to the liberalization of the sector and introduction of the GSM telecommunications into Nigeria in 2001. Various private telecommunication operators have been licensed since then. Some of the other fast-growing non-oil sectors since 2001 include wholesale and retail trade, which grew at an annual average rate of 13.4 percent, agriculture - 11.8 percent, solid minerals - 10.6 percent, and building and construction - 9 percent.

1.10 **The non-oil sector was also the dominant contributor to GDP between 2001 and 2009, contributing 77 percent of GDP.** Of all the non-oil sub-sectors, the agricultural sector was by far the largest contributor to GDP, contributing about 41 percent. The larger share of agriculture in GDP since the 1990s has been attributed to various factors, including reforms and government initiatives to improve smallholder farmers' access to agricultural inputs and credit. The importation of human capital into commercial agriculture in some parts of the country has also helped to expand agricultural output. Wholesale and retail trade was the next largest contributor to GDP between 2001 and 2009, explained by increasing urbanization of Nigeria's population over this period. Even though the oil sector witnessed a massive contraction during the period, it contributed over 20 percent of GDP. In the latter part of the period (2006 – 2009), the oil sector's contribution to GDP was a much lower 18.8 percent.

Table 2 : Share of Real GDP (Percent) – By Production

	1995-99	2001-05	2006-09	2001-2009
Oil & Gas	33.1	26.7	18.8	23.2
Agriculture	34.9	40.6	41.9	41.2
Manufacturing	4.6	3.8	4.1	3.9
Building & Construction	1.9	1.7	1.8	1.7
Wholesale & Retail Trade	13.6	12.1	16.7	14.1
Telecommunications	0.1	1.0	2.7	1.8
Others	11.8	14.1	14	14.1

Source: National Bureau of Statistics

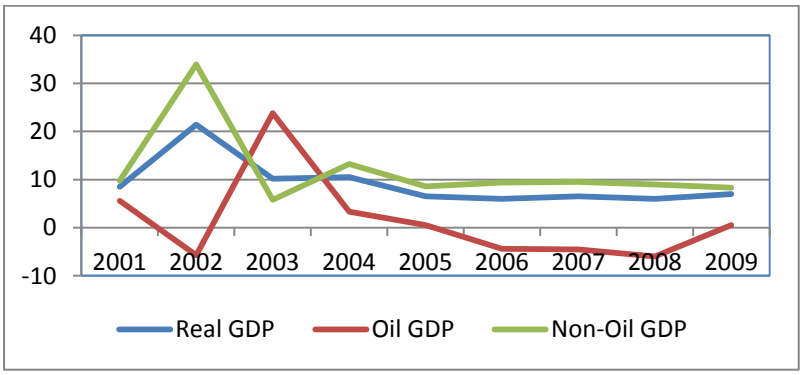
1.11 **Viewed from the expenditure side, GDP was dominated by domestic demand, particularly private consumption spending.** Table 3 indicates that private consumption expenditure accounted for over 75 percent of GDP during the period 2001-2008. Government consumption accounted for 13 percent of GDP, while gross investment accounted for 10.7 percent. Net exports contributed less than 1 percent of GDP over the period.

Table 3 : Share of Real GDP (Percent) – By Expenditure

	1995-99	2001-05	2006-08	2001-2008
Govt. Final Consumption Expenditure	5.1	7.7	21.3	13.1
Private Final Consumption Expenditure	73.6	81.3	61.9	75.8
Gross Investment	11.4	10.3	11.9	10.7
Net Exports	9.9	-2.4	5.0	0.4

Source: National Bureau of Statistics

Figure 1 : Nigeria's Real Growth (Percent)



Source: National Bureau of Statistics

C. EVOLUTION OF EMPLOYMENT IN NIGERIA

1.12 **Employment in Nigeria continues to be dominated by agricultural self-employment.** Direct comparisons between the 2009 NLSS labor market outcomes and outcomes of labor market analysis done by the World Bank in 2009 (using the 2004 NLSS data) cannot be easily done because of differences in the set-up of the labor market modules of both surveys. However, from the 2009 data, it is clear that self employment in the agricultural sector is still the largest component of employment in Nigeria. Non-agricultural self employment is the next highest employment component, followed by unpaid family work. Wage employment remains a minor component of employment in Nigeria.

Table 4 : Structure of The Labor Force*

Agriculture Self Employment	32.5
Non-Agriculture Self Employment	22.9
Non-Agricultural Unpaid Family Work	14.0
Wage Employment	7.2
Private Sector Apprenticeship	2.2
Others	6.0
Unemployed	15.1

Source: NLSS 2009

*12 months reference period used.

D. FISCAL PROFILE OF NIGERIA CONSOLIDATED GOVERNMENT

1.13 **Government revenues multiplied during the last decade due to favorable oil prices in the global oil market.** The total revenue of Nigeria's general government (comprising the federal, state and local governments) grew by over 300 percent in nominal terms or 67 percent in real terms between 2001 and 2008. This was due to the substantial increase in oil prices over the period, as over 80 percent of government revenues in Nigeria are derived from oil. Oil revenues accruing to the general government also grew by over 300 percent in nominal terms during this period. In real terms, oil revenue grew by over 65 per cent. Oil revenues dwindled between 2008 and 2009 due to the global economic crisis during which oil prices fell dramatically.

1.14 **In the same manner, government expenditure grew rapidly in the last decade notwithstanding the adoption of an oil price-based fiscal rule.** The total expenditure of the consolidated government grew by over 300 percent in nominal terms (over 70 percent in real terms) between 2001 and 2009. Even though as earlier noted, revenues dwindled between 2008 and 2009; government expenditure remained high in 2009 because the government was able to draw on its oil reserves during 2009. Federal government expenditure grew by over 100 percent, while state and local government expenditure grew at a more rapid rate of over 400 percent between 2001 and 2009. Even though government adopted an oil price-based fiscal rule since 2004, whereby excess crude oil earnings were saved, government expenditures still grew substantially over the period. More so, the oil price rule was watered down in subsequent years, allowing for more spending from the excess crude oil account than was originally envisaged. At the federal level, recurrent spending constituted the bulk of government expenditure – 75 percent on average during the period.

Table 5 : Fiscal Profile of Consolidated Government (N Billions)

	2001	2002	2003	2004	2005	2006	2007	2008	2009*
Total Revenues	**1927**	**2,348**	**2,795**	**4,127**	**5,592**	**6,336**	**5,926**	**8,063**	**5,003**
Of which: oil & gas	1585	1,476	2,106	3,355	4,759	5,445	4,564	6,535	3,192
Total Expenditure	**1560**	**2,290**	**2,890**	**3,699**	**4,226**	**5,035**	**6,001**	**6,934**	**7,880**
Federal Government	1066	1,529	1,680	1,654	2,244	2,476	2,425	2,784	3,213
Recurrent	874	1,257	1,439	1,393	1,901	1,914	1,593	2,075	2,294
Capital	192	264	241	261	344	562	833	710	919
State & Local Governments	494	762	1,210	2,045	1,932	2,362	2,156	2,886	3,092
Extra-Budgetary Funds	-	-	-	-	-	-	367	265	481
Other spending[1]	-	-	-	-	50	197	848	999	1,094
Fiscal Balance	367	58	(95)	428	1,366	1,301	(75)	1,129	(2,877)
Average Oil Price per Barrel (USD)	24.3	25.0	28.9	38.3	55.3	65.3	74.5	97.0	44.0
Budget Oil Price per Barrel (USD)	-	-	-	25.0	30.0	35.0	40.0	59.0	45.0
Excess Crude Account Balances ($ bn)	-	-	-	5.1	9.9	13.3	14.2	19.7	7.1
In % of GDP									
	2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Total Revenue	45.0	32.9	32.0	35.4	37.9	33.9	28.4	32.8	19.9
Of which: oil & gas	37.0	20.7	24.1	28.7	32.3	29.1	21.9	26.6	12.7
Total Expenditure	38.6	32.1	33.1	31.7	28.7	26.9	28.7	28.2	30.4
Fiscal Balance	6.4	0.8	-1.1	3.7	9.3	7.0	-0.4	4.6	-10.4

Source: IMF

[1] Includes Cash calls and fuel subsidy

* The recent global economic crisis took a heavy toll on government revenues in Nigeria because they are dominated by oil revenues, and the impact of this was most evident in 2009.

CHAPTER 2: SOCIOECONOMIC OUTCOMES IN NIGERIA

A. INTRODUCTION

2.1 **This section uses data largely from the 2009 Harmonized Nigeria Living Standards Survey (HNLSS) conducted by the National Bureau of Statistics to gauge the status of socioeconomic conditions in Nigeria.** Data from the 2004 NLSS are used to establish the trends in these socioeconomic outcomes where available. In instances where required data are not available from the Living Standards Surveys, other complementary data sources are used. These include the NDHS 2003 and 2008 and MICS 2007 and various years' GHS. The outcomes are disaggregated by gender, rural/urban residence, geopolitical zone and state and they are evaluated along the major thematic areas of Education, Gender Equality, Health and Nutrition, Labor & Social Protection and Water & Sanitation. Many of the indicators employed under these thematic areas to gauge Nigeria's socioeconomic conditions are MDG indicators and the analyses would focus mainly on these indicators.

B. EDUCATION

2.2 **Education is one of the most important aspects of human development and education outcomes are a veritable indication of well-being.** The 2nd MDG goal of achieving universal primary education has a target to ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling. The indicators for monitoring progress under this goal/target are the net enrolment ratio in primary education, the primary school completion rate and the youth literacy rate.

2.3 **The Nigerian government has made efforts over the years to promote education and literacy in Nigeria.** Nigeria's UBE policy focuses not only on providing educational opportunities to primary school age children, but also stresses the inclusion of girls and women and a number of underserved groups: the poor, street and working children, rural and remote populations, nomads, migrant workers, indigenous peoples, minorities, refugees, and the disabled.

2.4 Table 6 below presents the outcomes of the MDG-2 indicators for Nigeria, as well as a few other basic education outcome indicators.

Table 6: Education Outcomes, 2009

	2009	2015 Target[1]
Net enrolment ratio in primary education (%)	**57.0**	**100**
Net enrolment ratio in secondary education (%)	47.8	
Proportion of pupils starting grade 1 who reach last grade of primary (%)[2]	**94.0**	**100**
Literacy Rate of 15-24 year olds, women & men (%)	**70.7**	**100**
Literacy Rate of 15-24 year olds, men (%)	74.9	
Literacy Rate of 15-24 year olds, women (%)	66.5	
Adult Literacy Rate, women & men (%)	57.4	
Adult Literacy Rate, men (%)	65.4	
Adult Literacy Rate , women (%)	49.6	

Sources: NLSS 2009; MICS 2007

[1] 2015 targets are specified for MDG indicators only, where available. The MDG indicators are in bold fonts.

[2] The source of this data is MICS 2007.

Net Enrollment in Primary Education

2.5 The *net primary enrollment ratio* is the ratio of the number of children of official school age (as defined by the national education system) who are enrolled in primary school to the total population of children of official school age. In Nigeria, the official primary school age is 6 to 11 years.

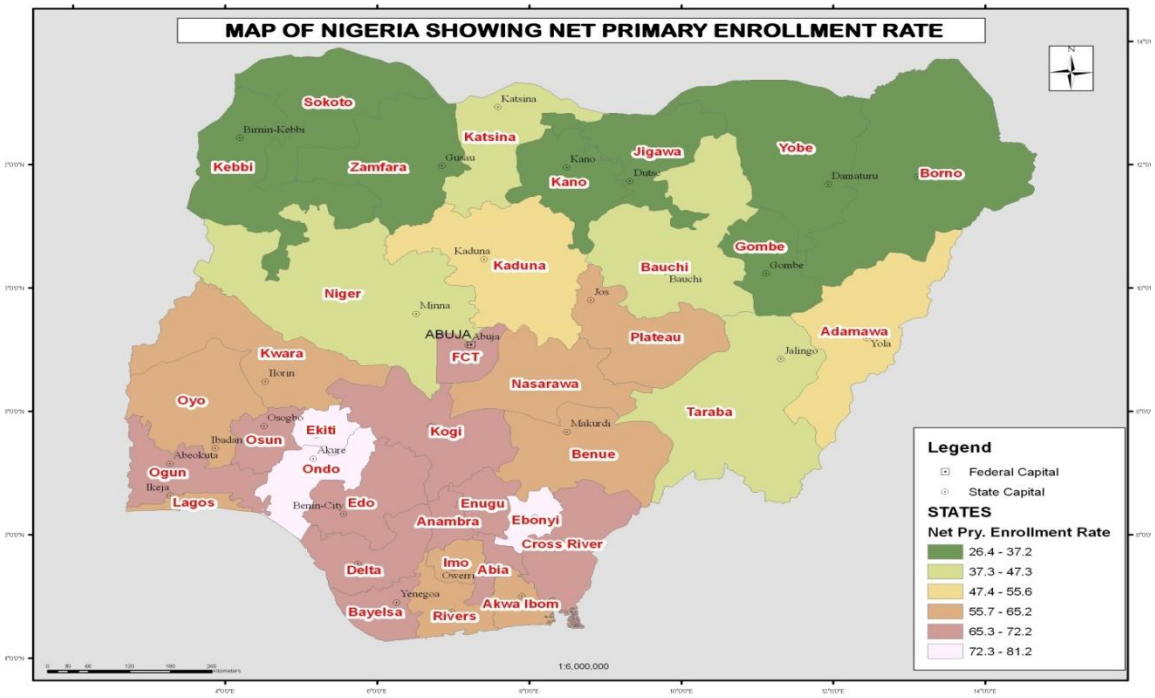
2.6 **With only four years to the MDG target date, net primary school enrollment ratio in Nigeria still lags far behind target.** Data from the NLSS 2009 (as shown in table 22) indicate that the net primary school enrolment ratio in Nigeria is 57.0 percent, while the 2015 MDG target is 100 percent. The male enrollment ratio at 57.6 percent is slightly higher than the female enrolment ratio of 54.4 percent. The average enrolment rate for the urban areas is 61.2 percent, slightly higher than the national average, while enrolment in the rural areas is 52.8 percent, lower than the national average. The dominance of male children in primary school enrolment holds true in both the rural and urban areas of the country.

2.7 **Net enrollment in primary education in Nigeria is highest in the south-east and lowest in the north-west.** In terms of zonal disparities, the South-East and South-West lead the pack, with 71.5 percent and 70.6 percent, respectively. The North-West (37.2 percent) and North-East (39.2 percent) record the lowest enrolments. In all the six zones, male enrolments exceed female enrolments, with the exception of the south-west, where they are at par. Disaggregated by state, net primary enrolment rate was highest in Ebonyi (81.2 percent), Ekiti (80.7 percent), Ondo (75.9 percent), Abia (72.2 percent), Enugu (71.3 percent), Osun (70.7 percent), and Edo (70.6 percent) states. The lowest primary enrolment rates were recorded in Zamfara (26.4 percent), Yobe (28.4 percent), Borno (31.9 percent), Kebbi (32.3 percent), Gombe (32.4 percent), Sokoto (34.3 percent), Kano (35.1 percent), Jigawa (37.2 percent), Katsina (39.6 percent), Bauchi (43.6 percent), Niger (45.9 percent), and Taraba (47.3 percent).

2.8 **Female primary enrollment exceeds male enrollment in a couple of states.** Net enrollment for females was slightly higher than that of males in the FCT, Yobe, Taraba, Rivers, Oyo, Osun, Ondo, Kwara, Kogi, Kaduna, Imo, Enugu, Ebonyi, Delta, and Adamawa. However, at the secondary level, only Bayelsa, Ebonyi, Enugu, Ondo and Rivers still retain higher female enrollment rates.

2.9 **The Government of Nigeria can significantly improve the overall primary enrolment ratio by making concerted efforts in the north west and north eastern states.** This is because these two zones of the country have by far, the lowest primary enrolment rates (37.2 and 39.2 percent, respectively). At the same time, they are host to 40 percent of the country's total population and 45 percent of the primary school age population. Indeed, a simulation of increased primary school enrollment in these two zones shows this clearly: if net primary enrolment in each of these two zones increases to about 68 percent (which is the average enrolment rate in the other four zones), the overall net enrolment rate would increase to 70 percent.

Figure 2 : Net Primary Enrollment Rates



Proportion of Pupils Starting Grade 1 Who Reach Last Grade of Primary School

2.10 Also known as the Survival Rate to last Grade of primary, the *proportion of pupils starting grade 1 who reach last grade of primary school* is the percentage of a cohort of pupils enrolled in grade 1 of the primary level of education in a given school year who are expected to reach the last grade of primary school, regardless of repetition.

2.11 **In Nigeria, most of the children starting grade one eventually reach grade six.** The outcomes for this indicator are consistently high (above 90 percent) all across Nigeria, except in the North-Eastern states of Borno (66 percent), Yobe (71 percent), Gombe (77 percent), and Taraba (88 percent) and in the North Central state of Plateau (63 percent). Overall, in Nigeria, 94 percent of pupils starting grade one reach grade six. There are strong prospects of Nigeria attaining the MDG target of 100 percent on this indicator.

Youth Literacy Rate (15-24 year olds)

2.12 The *Literacy rate of 15–24 year-olds*, or the youth literacy rate, is the percentage of the population 15–24 years old who can both read and write with understanding a short, simple statement on their everyday life.

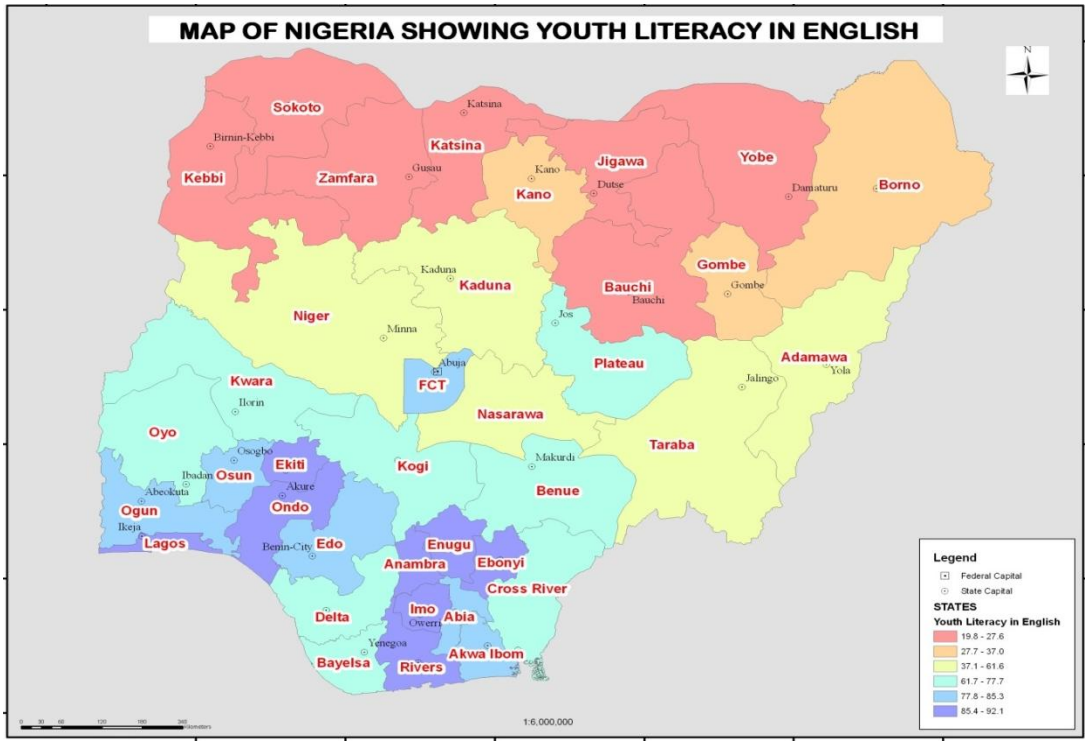
2.13 **Fourteen out of every twenty persons aged 15 to 24 in Nigeria are able to read and write in any Language**. In Nigeria, the average youth literacy rate (in any language) is 70.7 percent. Youth literacy rate in the urban regions is 86.1 percent while it is 61.4 percent in the rural areas. Male literacy rate is higher than female literacy rate, both in the rural and urban areas. Overall male youth literacy rate is 74.9 percent while the female literacy rate is 66.5 percent.

2.14 **Youth literacy rate is highest in the south eastern zone of the country and lowest in the north west zone.** At the zonal level, the south-eastern zone of the country records the highest literacy level (91.2 percent), followed by the south-west (89.7 percent). The north-west (45.5 per cent) and north-east (46.8 percent) recorded the lowest levels. The south-east also recorded the highest male (91.7 percent) and female (90.7 percent) literacy rates. Similarly, the north-west recorded the lowest male (54 percent) and female (37 percent) literacy rates. Disaggregated by state, Katsina (32 percent), Jigawa (32.5 percent), and Kebbi (35 percent) had the lowest youth literacy rates while Ebonyi (93.5), Anambra (93.3 percent), Lagos (92) and Ondo (91.9) recorded the highest rates. Female literacy was slightly higher than male literacy in four states: Ebonyi (93.6 percent female; 91.7 percent male), Ondo (92 percent female and 91.8 percent male), Imo (91.7 percent female; 91 percent male) and Rivers (90.4 percent female; 87.6 percent male).

2.15 **Youth literacy in English language is a slightly lower 64.3 percent**. The geographical pattern of English language literacy around the country coincides with that of overall literacy (i.e. literacy in any language – English or Nigerian languages) with the south east zone leading the pack and the north west zone having the worst outcome.

2.16 **The Government of Nigeria may be able to accelerate progress towards the MDG target on youth literacy if it scales up efforts in the north-west and north-eastern states.** These two zones of the country have by far, the lowest youth literacy rates (45.5 and 46.8 percent, respectively) and together, they are host to 40 percent of the country's entire population and one-third of the entire youth population. Indeed, if youth literacy in each of these two zones can be accelerated to the average level in the other four zones, there would be a significant increase in the overall youth literacy rate to about 80 percent.

Figure 3 : Youth Literacy (In English)



C. GENDER EQUALITY

2.17 **Gender equality and women empowerment are important indicators of development and good governance.** Empowering women is seen as an indispensable tool for advancing development and social welfare. Empowered women contribute to the health and productivity of whole families and communities and to improved prospects for the next generation. The importance of gender equality is underscored by its inclusion as one of the eight MDGs. Gender equality is acknowledged as being a key to achieving the other seven goals. In June 2007, Nigeria launched her own National Gender Policy to promote gender equity and sustainable development.

2.18 While gender disparities are examined across all indicators analyzed in this study, the MDGs specify three key indicators for monitoring countries' progress in the promotion of gender equality and women empowerment. The MDGs seek to eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015. There are also targets for the share of women in non-agricultural wage employment as well as in national parliaments.

Table 6 : Gender Equality

	2004	2009	2015 Target[1]
Ratio of girls to boys in primary education (girls per 100 boys)	81	87.8	100
Ratio of girls to boys in secondary education (girls per 100 boys)	77.4	75.9	100
Ratio of girls to boys in tertiary education (girls per 100 boys)[2]	NA	75.2	100
Share of women in wage employment in the non-agricultural sector (%)	NA	38	NA
Proportion of seats held by women in the national parliament (%)	3.1	7.5	30

Sources: NLSS 2004, 2009; Administrative Sources.
Notes: [1] 2015 targets are specified for MDG indicators only. The MDG indicators are in bold fonts.

Ratio of Girls to Boys in Primary, Secondary & Tertiary Education

2.19 The *Ratio of girls to boys in primary, secondary and tertiary education* is the ratio of the number of female students enrolled at primary, secondary and tertiary levels in public and private schools to the number of male students. It is an indicator of equality of educational opportunity, and the education of girls is a veritable tool for achieving gender equality.

2.20 **In Nigeria, there continues to be a gap between the number of girls and boys at all levels of education in Nigeria, with the gap widening as we move from the primary level to the tertiary level.** The ratio of boys to girls in primary, secondary and tertiary education in 2009 was 87.8, 75.9 and 75.2 percent, respectively. The ratio at primary level improved between 2004 and 2009 from 81 per cent to almost 88 percent. At the primary level also, the gap was widest in the north western part of Nigeria (79 percent) and thinnest in south south and south west (95.6 and 95.5 percent, respectively). In Delta, Rivers, Ogun, Osun, Kogi, FCT and Yobe states, the number of girls in primary school exceed the number of boys. Thus, these states have ratios of over 100 percent. The lowest ratios were recorded in the north western states of Kebbi and Sokoto (Table 27). The north western region of the country also records the widest gap between boys and girls in secondary education while the south east records the thinnest gap of 95.5 percent. Anambra, Enugu and Bayelsa states have more girls than boys in secondary school (Table 28). Again, at the tertiary level, the North West has a far greater proportion of males than

females in school, as the ratio of females to males in tertiary education in this region is only 39 percent. On the contrary, in the South East, the numbers of females exceed the number of males in tertiary education. The ratio in this region is 111.3 percent (Table 29).

2.21 **Nigeria would make good progress in closing the gender gap in education if it scales up interventions in the northern part of the country.** Whereas the three geopolitical zones in the south each have secondary and tertiary ratios above 85 percent and 87 percent, respectively, the three northern geopolitical zones have ratios of less than 66 and 55 percent, respectively. And then, these three northern zones host slightly more than half of the country's population. Efforts in the north-west in particular, would make a noticeable difference because this region has the lowest ratios of 53 and 39 percent, respectively, and has over a quarter of the country's entire population.

Share of women in wage employment in the non-agricultural sector

2.22 The *share of women in wage employment in the non-agricultural sector* is the share of female workers in paid employment in the non-agricultural sector (i.e. in the industry or services sectors) expressed as a percentage of the total number of people in paid employment in that sector. The indicator measures the degree to which labor markets offer equal employment opportunities for women in the industry and service sectors. Usually, there are large differences between women and men in non-agricultural employment, particularly in developing countries. Women are more likely than men to be engaged in informal sector activities and subsistence or unpaid work in the household, but as economies develop, the share of women in non-agricultural wage employment becomes increasingly important.

2.23 **In Nigeria, men still dominate the wage employment sector.** The share of women in wage employment is only 38 percent. This trend permeates the various zones and states of the country with the exception of Anambra state where the share of women in wage employment exceeds that of males. Yobe state has the worst ratio of 20 percent (Table 30).

Proportion of seats held by women in the National Parliament

2.24 The *proportion of seats held by women in national parliaments* is the number of seats held by women expressed as a percentage of all occupied seats. Women's representation in parliaments is one aspect of women's opportunities in political and public life, and it is therefore linked to women's empowerment.

2.25 The proportion of seats held by women in Nigeria's national parliament has moved progressively from 3.1 percent at the onset of the current democratic dispensation to 7.5 percent after the third set of elections in 2007. However, this achievement is still far from the 2015 MDG target of 30 percent.

Table 7 : Proportion of Seats Held by Women in the National Parliament (%)

2000	2004	2009	MDG Target
3.1	3.9	7.5	30

D. HEALTH & NUTRITION

2.26 **The health status of a person or group of people is a clear indication of their well-being.** Lack of health is many times, a result of poverty. In response to the unavoidable intersection between poverty and lack of health, most of the MDG targets are partially related to health and three goals in particular were created to expressly address the main elements of the health crisis in the developing world. The health MDGs are numbers 4, 5 and 6. MDG 4 aims to reduce infant mortality by two-thirds by 2015. MDG 5 calls for increased efforts to improve maternal health, especially to reduce by three-quarters the maternal mortality ratio and achieve universal access to reproductive health. MDG 6 aims to combat HIV/AIDS, tuberculosis, malaria and other diseases.

2.27 This sub-section examines Nigeria's status with respect to these MDGs using as many of the related MDG indicators that have been generated by the NLSS, NDHS and Sentinel Surveys. Malnutrition prevalence, one of the MDG Goal 1 indicators, is also examined in this sub-section. The indicators are classified and examined under the following categories: Nutrition, Infant & Child Health, Maternal Health, and HIV/AIDS & Malaria.

Nutrition

2.28 **Sufficient and good quality nutrition is necessary for the development, health and survival of current and succeeding generations.** Child malnutrition is linked to poverty, low levels of education and poor access to health services. Malnourishment in children, even moderate, increases their risk of death, inhibits their cognitive development, and affects health status later in life. The under-five malnutrition prevalence rate, which is the proportion of children under five years who are underweight for their age, is an internationally recognized public health indicator for monitoring nutritional status and health in populations. Child malnutrition is also monitored more closely than adult malnutrition.

2.29 **The malnutrition prevalence rate in Nigeria was 23 percent in 2008. This was only a marginal improvement over the 2003 level of 24 percent.** The north west and north eastern zones of the country have the highest malnutrition prevalence of 35.1 and 34.5 percent, respectively; while the south east and south south regions have the lowest rates of 10.0 and 12.8 percent, respectively (Table 9). There is a strong possibility that the 2015 target for this

Table 8 : Malnutrition Prevalence Rates in Nigeria, 2008

North Central	19.5
North East	34.5
North West	35.1
South East	10.0
South South	12.8
South West	13.3
Total	23.1

Source: NDHS 2008

Table 9 : Health & Nutrition Outcomes

	2003/04	2008/09	2015 Target[1]
NUTRITION			
Malnutrition Prevalence Rate (%)[2]	24.3	23.1	17.9
INFANT & CHILD HEALTH			
Under-five mortality rate (per 1,000 live births)[2]	201	157	63.7
Infant Mortality rate (per 1,000 live births)[2]	100	75	30.3
Proportion of 1 year-old children immunized against measles	33.4	47.2	100
Proportion of 1 year-old children immunized against polio	NA	58.9	
Proportion of 1 year-old children immunized against tuberculosis	NA	41.7	
MATERNAL HEALTH			
Maternal mortality ratio (per 100,000 live births)[2]	NA	545	250
Proportion of births attended by skilled health personnel (%)	36.3	38.9	100
Adolescent birth rate (%)			
Antenatal care coverage - at least one visit (%)[2]	61.4	54.5	
Antenatal care coverage - at least 4 visits (%)[2]	47	44.8	
Unmet need for family planning (%)	17	20.2	
HIV/AIDS, MALARIA & OTHER DISEASES			
HIV prevalence among population aged 15-24 yrs (%)[3]	5.3	4.2	To be halted
Condom use at last high-risk sex (percent)[2]	48	62	100
Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS (%)[2]	21.1	23.9	100
Children orphaned by HIV/AIDS (million)	3.6	6.2	
Proportion of population with advanced HIV infection with access to anti-retroviral drugs.	NA	NA	
Malaria prevalence (per 100,000)	NA	NA	
Deaths associated with malaria (per 100,000)	NA	NA	
Proportion of children under 5 sleeping under insecticide-treated bed nets (%)[2]	1.2	5.5	
Proportion of children under 5 with fever who are treated with appropriate anti-malaria drugs	33.9	41.4	
Tuberculosis prevalence (per 100,000)	NA	NA	
Deaths associated with tuberculosis (per 100,000)	NA	NA	
Proportion of tuberculosis cases detected and cured under directly observed treatment short course	NA	NA	

Sources: NLSS 2004 & 2009, NDHS 2003 & 2008; FMoH

[1] 2015 targets are specified for MDG indicators only, where available. The MDG indicators are in bold fonts.

[2] Data from NDHS 2003 and 2008

[3] Data from FMoH Sentinel Site Surveys

Infant and Child Health

2.30 Millennium Development Goal 4 is to reduce child mortality by two-thirds by the year 2015 and the indicators for monitoring progress are the infant and under-five children mortality rates and the proportion of children immunized against measles.

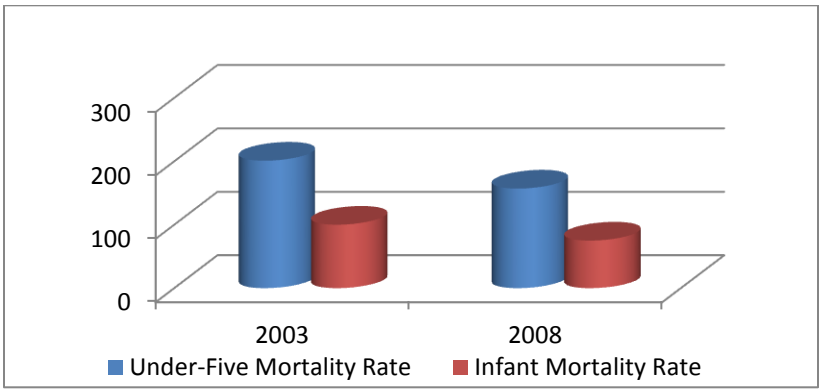
Under-five and Infant Mortality Rates

2.31 The *under-five mortality rate* is the probability (expressed as a rate per 1,000 live births) of a child born in a specified year dying before reaching the age of five if subject to current age-

specific mortality rates. The *infant mortality rate* represents an important component of under-five mortality and is the number of infants dying before reaching the age of one year per 1,000 live births in a given year. Both indicators measure child survival, and reflect the social, economic and environmental conditions in which children (and others in society) live, including their health care.

2.32 **There was an improvement in both the under-five and infant mortality rates in Nigeria between 2003 and 2008**. Both indices improved by almost the same magnitude over the period: while the under-five mortality rate improved by 22 percent from 201 to 157, the infant mortality rate improved by 25 percent from 100 to 75 per 1,000 live births. Despite these improvements, it is however doubtful that Nigeria will meet the MDG target on both indicators. Of 63.7 and 30.3 per 1,000 live births, respectively.

Figure 4 : Under-Five and Infant Mortality



Source: NDHS 2003, 2008.

Proportion of 1 year-old children immunized against measles

2.33 **The *proportion of 1-year-old children immunized against measles* is the percentage of children under one year of age who have received at least one dose of measles vaccine.** A first dose of measles vaccine is usually supposed to be administered to all children at the age of nine months or shortly after. The indicator provides a measure of the coverage and the quality of the child health-care system in the country. Immunization is essential for reducing under-five mortality, and among the vaccine-preventable diseases of childhood, measles is the leading cause of child mortality. It has been estimated that vaccination coverage for measles needs to be above 90 per cent to stop transmission of the virus—not only because measles is so contagious, but also because up to 15 per cent of children vaccinated at nine months fail to develop immunity.

2.34 **Measles immunization coverage in Nigeria improved between 2004 and 2009, but still lags far behind the MDG target.** The national measles immunization coverage rate (for children up to one year) in Nigeria was 47.2 percent in 2009, up from the 33.4 percent recorded in 2004. The proportion of children immunized against measles in the urban and rural sectors were 56.3 percent and 41.7 percent, respectively. There was no significant gender disparity in measles immunization coverage, as male coverage was 46 percent, and female coverage, 48.5 percent. The proportion of children immunized against measles was highest in the South West

Zone (62.2 percent) and lowest in the North West (34.3 percent). At this pace, it is doubtful that Nigeria will be able to achieve the 100 percent target for 2015.

2.35 **Government could accelerate the overall measles immunization rate if it specifically targets the north west zone.** Given that this geopolitical zone has by far the lowest measles immunization coverage rate and hosts over a quarter of the nation's entire population and over a third of the population aged 0-12 months, specific interventions in this zone could make a considerable difference. Furthermore, measles immunization coverage will improve from 47 to 60 percent if the three lagging geo-political zones accelerate their rates to meet up with the three top-performing zones. A simulation of improved immunization coverage in the three lagging geo-political zones (north west, north east and south east with coverage of 34.3, 42.3 and 47.9 percent, respectively) indicates that if these zones accelerate immunization coverage to the level of the three other zones (an average of 60 percent), overall coverage would reach 60 percent.

Maternal Health

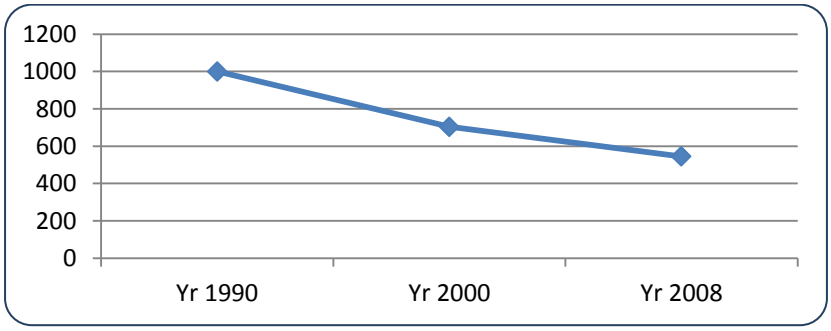
2.36 There are five key indicators set within the MDG Goal 5 to track progress in maternal health, namely: the maternal mortality ratio, the proportion of births attended by skilled health personnel, antenatal care coverage, the adolescent birth rate and unmet need for family planning. The NLSS 2009 and NDHS 2008 provide data to gauge progress on some of these indicators.

Maternal Mortality Ratio

2.37 The *maternal mortality ratio* is the number of women who die from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, per 100,000 live births.

2.38 **Nigeria's maternal mortality ratio is improving but the MDG target may not be achieved.** Data collected by the Nigeria Demographic and Health Surveys (NDHS) indicate that there has been a progressive decline in the maternal mortality ratio from 1990 when the value was 1000 deaths per 100,000 live births, to 545 in 2008. Despite the improvement, the target of 250 for 2015 is not likely to be achieved at the current pace. The NDHS do not disaggregate the data on maternal mortality by geo-political zone or state. The Figure below shows the trends in maternal mortality in Nigeria.

Figure 5 : Trend in Maternal Mortality ratio (per 100,000 live births) in Nigeria



Source NDHS 1999, 2003, 2008

The Proportion of Births Attended by Skilled Health Personnel

2.39 The *proportion of births attended by skilled health personnel* is the percentage of deliveries attended by personnel trained to give the necessary supervision, care and advice to women during pregnancy, labor and the post-partum period; to conduct deliveries on their own; and to care for newborns. *Skilled health personnel* include only those who are properly trained and who have appropriate equipment and drugs. Specifically, they include doctors, nurses, midwives, auxiliary nurses and auxiliary midwives. Traditional birth attendants, even if they have received a short training course, are not considered as skilled health personnel. The indicator is a measure of a health system's ability to provide adequate care for pregnant women.

2.40 **Less than half of child births in Nigeria are attended by skilled health workers**. The proportion of births attended by skilled health personnel in Nigeria was 46 percent in 2009, up from 39 per cent in 2008. These were as measured by the NDHS 2008 and the HNLSS 2009. The south east and south west zones have the highest proportion of births attended by skilled health personnel while the north west and north east zones have the lowest. State disaggregation by both surveys shows that Imo and Anambra states in the south east have the highest proportion of births attended by skilled health personnel – over 90 percent, in both surveys; while Sokoto, Kebbi, Bauchi, Yobe and Jigawa states have the lowest - each, less than 20 percent (Tables 33a and 33b). The disparity is wide between the southern and the northern states and it paints the typical picture of the healthcare delivery system in the country. There are gross human resource issues – in terms of numbers and quality, as well as the issue of access to health care particularly in the rural areas of the north. Consequently, maternal deaths are higher in the region.

2.41 An analysis of the specific types of assistance at deliveries shows that most births in the north east and north western regions of the country are assisted by traditional birth attendants, relatives or even no one.

Ante-Natal Care Coverage

2.42 The World Health Organization recommends at least four ANC visits with skilled health professionals for pregnant women without complications.

2.43 **In Nigeria, less than half of pregnant women have up to four antenatal care visits with skilled health professionals.** The NDHS 2008 reports that only about 45 percent of pregnant women had at least four ANC visits. This represents a marginal decline below the rate in 2003 (47 percent). When the number of ANC visits being considered reduces to at least one visit, the proportion of pregnant women meeting the requirement increases to 55 percent, also a decline from the 2003 level of 61 percent. Almost 50 percent of rural women and about 12 percent of urban women do not receive any antenatal care. 69 percent of urban women meet the WHO requirement of at least four visits, while only 35 percent of rural women meet this requirement.

HIV/AIDS and Malaria

HIV/AIDS

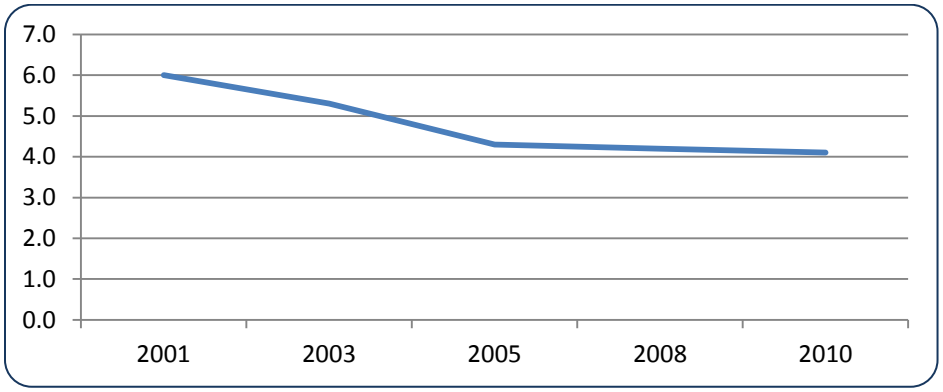
2.44 Target 6a of the MDGs is to have halted by 2015, and begun to reverse the spread of HIV/AIDS. There are four related indicators, namely: HIV prevalence among the population aged 15-24 years; condom use at last high risk sex; proportion of population aged 15-24 years with comprehensive knowledge of HIV/AIDS and ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years. The NLSS 2009 did not collect specific data for these indicators. Thus, the HIV prevalence data and the other indicators used here were obtained from reports of National ANC Sentinel Site Surveys and the National Demographic and Health Survey (NDHS).

HIV Prevalence among the Population aged 15-24

2.45 **About half of all new HIV cases the world over, are among people 24 years of age or younger.** In generalized epidemics (with prevalence consistently at more than 1 per cent among pregnant women), the infection rate for pregnant women is similar to the overall rate for the adult population. Therefore, the prevalence rate among pregnant women aged 15-24 is used as a measure of the spread of the epidemic among the population aged 15-24.

2.46 **Nigeria's HIV prevalence rate among the population aged 15 -24 is declining.** The HIV prevalence rate among the population aged 15-24 years declined from 6 percent in 2001 to 5.3 percent in 2003 and further to 4.2 percent in 2008. In 2010, there was a further decline, albeit marginal, to 4.1 percent. Whereas in 2008, sub-national differences were marked by a prevalence of more than 10 percent in Nassarawa and Benue states and less than 2 percent in Ekiti and Osun States; in 2010, Benue again, and Akwa-Ibom states had prevalence rates of over 10 percent, and Ekiti (again), Bauchi and Kebbi states had rates of less than 2 percent. Figure 6 below shows the trend in HIV prevalence among persons aged 15 – 24 years in Nigeria between 2001 and 2010.

Figure 6 : HIV Prevalence Rate among the Population aged 15-24 (%)



Source: FMOH (2010): Technical Report of HIV Seroprevalence Sentinel Survey among the Antenatal Clinic attendees in Nigeria

Condom Use at last High Risk Sex

2.47 *Condom use at last high-risk* sex is the percentage of young people aged 15–24 reporting the use of a condom during sexual intercourse with a non-regular sexual partner in the last 12 months. A rise in the indicator is an extremely powerful sign that condom promotion campaigns are having the desired effect among their principal target market.

2.48 **There has been an increase in the rate of condom use during high risk sex over the last few years in Nigeria.** The NLSS 2009 did not collect information on this indicator, but the NDHS has data for two successive surveys as shown in figure 7 below. From the NDHS, condom use among men at their last high risk sex increased from 46.3 percent in 2003 to 49.4 percent in 2008. For women, the increase was more significant: from 24 percent in 2003 to 35.5 percent in 2008. Overall in 2008, the proportion of young people (aged 15-24, men and women) reporting the use of a condom at their last high risk sex was 40.8 percent.

Figure 7 : Percentage of persons (15-24 yrs) reporting the use of a condom the last time they had sex with a non-marital, non-cohabiting sexual partner

Source: NDHS 2003, 2008

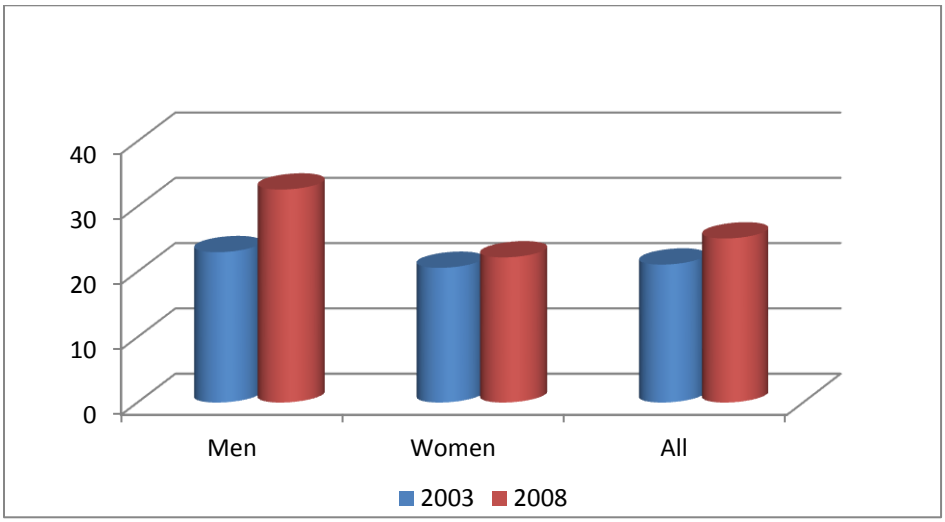
Proportion of Population Aged 15-24 Years with Comprehensive Correct Knowledge of HIV/AIDS

2.49 *The Percentage of the population aged 15–24 years with comprehensive correct knowledge of HIV/AIDS* is the share of women and men aged 15–24 years who correctly identify the two major ways of preventing the sexual transmission of HIV (using condoms and limiting sex to one faithful, uninfected partner), who reject the two most common local misconceptions about HIV transmission and who know that a healthy-looking person can transmit HIV. The indicator reflects the success of national information, education and communication programs and other efforts in promoting knowledge of valid HIV-prevention methods and reducing misconceptions about the disease.

2.50 The **proportion of the youth population in Nigeria with comprehensive correct knowledge of HIV/AIDS increased between 2003 and 2008**. The increase in knowledge about

HIV/AIDS among the male population was more dramatic than among the female population. There was an increase in the proportion of the male population with comprehensive knowledge about HIV/AIDS from 23 percent in 2003 to 33 percent in 2008. The increase among the female population was rather marginal: from 20.6 percent to 22.2 percent.

Figure 8 : Proportion of Population Aged 15-24 with Comprehensive Correct Knowledge of HIV/AIDS (%)



Source: NDHS 1999, 2003, 2008

Malaria

2.51 **Malaria is one of the leading causes of death in developing countries.** Target 6c of the MDGs is to have halted by 2015 and begun to reverse, the incidence of malaria and other major diseases (through effective prevention and treatment measures). The NLSS/NDHS captured two of the three MDG indicators used to track progress with reducing the incidence of malaria.

Proportion of children under 5 sleeping under insecticide-treated bed nets

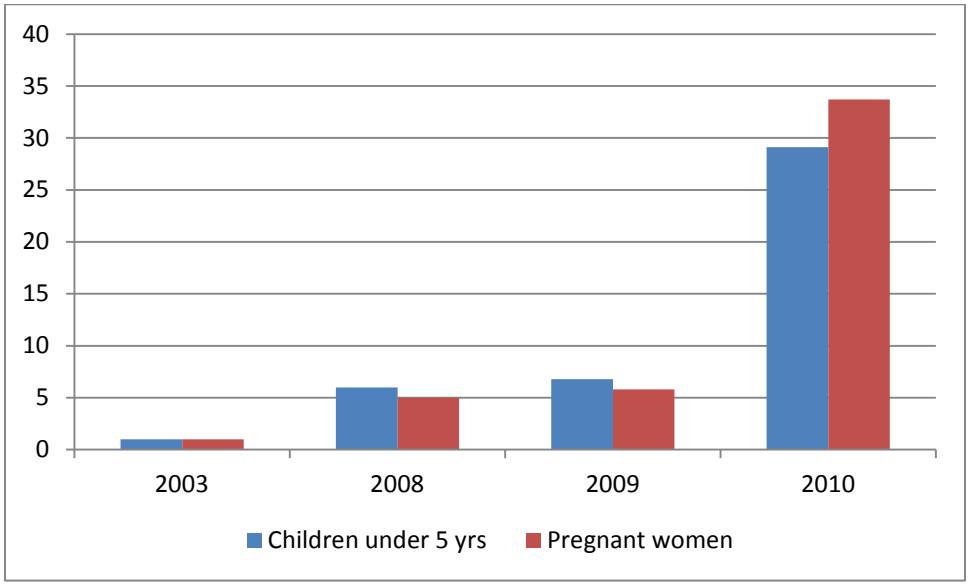
2.52 In areas of sub-Saharan Africa with high levels of malaria transmission, regular use of an insecticide-treated bed net has been demonstrated to reduce mortality in children under five years of age by as much as 20 per cent. It is therefore no surprise that this is one of the MDG indicators. Children under 5 years of age (as well as pregnant women) are vulnerable to malaria fever and its associated fatalities. Thus, *Roll Back Malaria*[4] programs are targeted at preventing these two vulnerable groups of persons from having the disease.

2.53 **The use of insecticide-treated nets among under-five aged children increased significantly between 2003 and 2010 following the massive scale-up of interventions by Nigeria and Roll Back Malaria partners since 2009.** Information from NDHS 2003 and 2008 indicate that Insecticide Treated Net ITN usage among children under five increased from 1

[4] The *Roll Back Malaria* initiative was established in late 1998 by the World Health Organization, the United Nations Children's Fund, the United Nations Development Programme (UNDP) and the World Bank, to help reduce the burden of malaria in Africa.

percent in 2003 to 5.5 percent in 2008. Data from the NLSS 2009 indicates that this improved marginally to 6.8 percent in 2009. Preliminary data from the 2010 Nigeria Malaria Indicator Survey (NMIS) indicate that by 2010, ITN usage rate among under-fives had accelerated to 29.1 percent, following vigorous campaigns and interventions by the Nigerian government and the *Roll Back Malaria* partners in the country since 2009. Usage in the rural areas was 31 percent, while in the urban areas; it was 22 percent, in 2010. ITN ownership is much higher than its usage around the country: The NMIS indicate ownership rate of 41.5 percent while anecdotal evidence shows ownership of more than 80 percent in some states. In the seven states supported by the World Bank-assisted Nigeria Malaria Control Booster Project (Anambra, Akwa-Ibom, Bauchi, Gombe, Jigawa, Kano and Rivers), the ownership was 44 percent and 42 percent, respectively for children under 5 years and pregnant women in 2010 (LQAS 2010).

Figure 9 : ITN Usage among children under 5 years and pregnant women (%)



Sources: NDHS 2003, 2008, HNLSS 2009, NMIS 2010

Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs

2.54 This indicator measures the percentage of children aged 0-59 months with fever in the two weeks prior to the relevant data generation survey who received any anti-malarial medicine, including anti-malarial medicines, such as chloroquine, that may be less effective due to widespread resistance and treatment failures.

2.55 **The usage of appropriate antimalarial drugs in children under five is growing in Nigeria**. While the NDHS 2008 reports that the proportion of children under 5 with fever who were treated with anti-malarial drugs like SP/Chloroquine, Amodaquine, Ouinine or ACT was 33.2 percent, the 2009 NLSS reports a rate of 41.4 percent and the MNIS 2010 reports a rate of 49.1 percent (59.8 and 46.3 percent in the urban and rural areas, respectively). Even though chloroquine was no longer the recommended first line drug, it was the most common antimalarial drug used in both the urban and rural areas in 2010. ACTs were far more popular in the urban than in the rural areas.

E. LABOR & SOCIAL PROTECTION

2.56 Apart from the youth unemployment rate, the other indicators examined in this section are not MDG indicators, but are also very useful socioeconomic assessment indicators.

Labor Force Participation Rate

2.57 The labor force in Nigeria consists of persons aged 15-64 (not in school), and are either employed or actively looking for work (unemployed). The *labor force participation rate* thus is the ratio of the labor force to the overall size of the cohort of persons aged 15-64 who are not in school.

2.58 **Labor force participation in Nigeria is high.** The disparity between labor force participation for men and for women is negligible. The labor force participation rate over the 12 months prior to the NLSS 2009 data collection was 92 and 93 percent, respectively, for males and females, i.e. most persons aged 15 and 64 years (not in school) either had work, or were willing to work. More people in the rural areas were willing to work, compared with the urban sector, with the rural labour force participation rate being about 6 percentage points higher for both male and female than in the urban area. Zone-wise, the North West has the highest labour force participation rate while the South West has the lowest. The male participation rate in the South South and the South West falls below the national average but it is higher in both the northwest and northeast. In similar vein, the female labour force participation rate is lowest in the South South and highest in both the Northeast and North west at 96 percent. In four of the zones (all the three in the south and the north central), the rate falls below the national average. State wise, Benue has the highest participation rate for both male and female while Kwara (for male) and Rivers (for female) record the lowest rate (Table 39).

Youth Labor Force Participation Rate

2.59 **The youth labor force participation rate in Nigeria is much lower than that of the entire labor force.** The youth (aged 15-24years) labor force participation rate over the 12 months prior to the 2009 NLSS survey was 79.3 percent, much lower than that of the larger working age population. The female participation rate was slightly higher than the male participation rate; and the rural participation rate was much higher than the urban rate of participation.

2.60 **Across the geopolitical zones, the northwest and northeast respectively have the highest youth labor force participation rate for both males and females.** This is likely due to the fact that education enrolment rates in these regions are the lowest in the country and more youths are out of school. The southwest zone had the lowest youth labor force participation rate, also likely due to the relatively high school enrolment rates in this zone.

2.61 A disaggregation of the participation rate by state shows that Benue state has the highest youth labor force participation rate for both male and female youths at 95.4 and 96.5 percent, respectively. Kwara state recorded the lowest participation rate by both male and female youths with the male rate being just 52 percent while the female was 60.5 percent.

Unemployment

2.62 The unemployment rate of a country refers to the proportion of the labor force that is available for work but cannot find work. The unemployment rate measures the degree to which the labor force is utilized in the economy.

2.63 **The national unemployment rate in 2009 (using the 12 month reference period) was 15.3 percent.** The rate was much lower for males (11.2 percent) than for females (19.4 percent). Urban unemployment was a much higher rate of 18 percent compared with the rural rate of 12.5 percent.

2.64 Disaggregating the national unemployment according to zones, the North West had the highest unemployment rate of 21.5 percent, while the south east had the lowest rate of 8.9 percent.

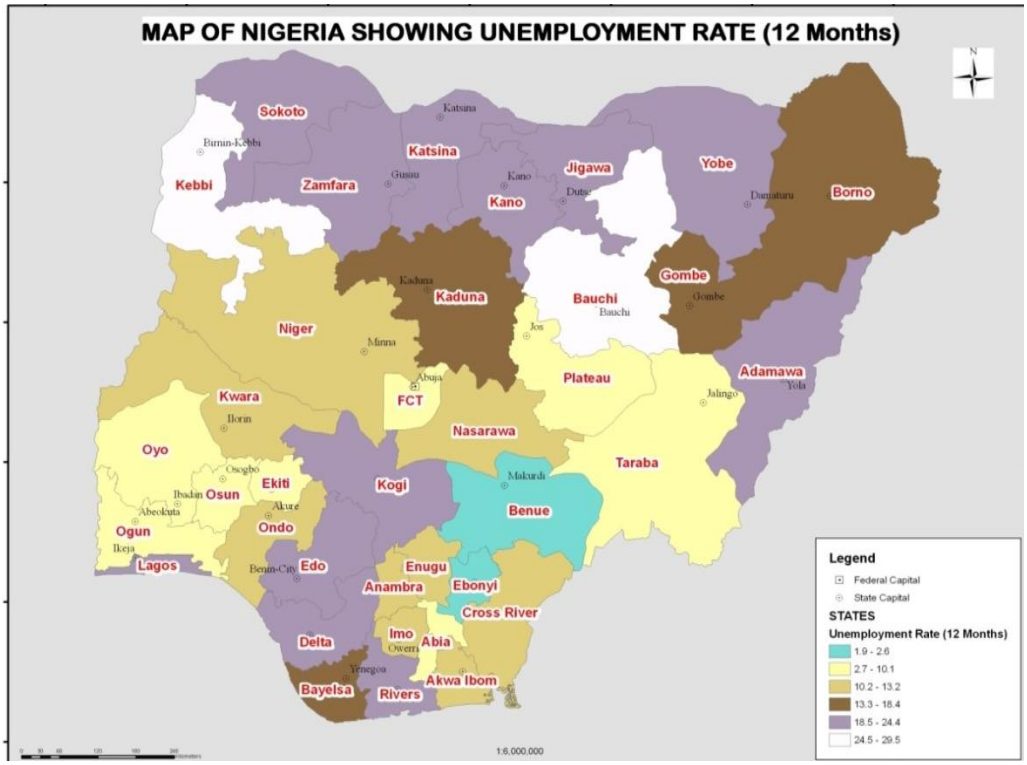
2.65 At the state level, the unemployment rate was as high as 25 percent for the male population in Lagos state and 42.2 percent for the female population in Bauchi state. For both male and female populations respectively, Ebonyi had the lowest unemployment rate of 1.8 and 2.1 percent. In nine of the 36 states and FCT, the unemployment rate was lower than 10 percent. The male unemployment rate in 18 of the states and FCT was lower than ten percent whereas this was the case in only six states for the females. There was a high rate of female unemployment in the core north reaching a high of 42.2 percent in Bauchi state. Yobe, Zamfara, Sokoto, Kano, Kebbi, Katsina are states with high rate of female unemployment. Incidentally, these states represent areas with strong cultural barrier to the female gender being engaged in any type of paid employment because of the secluded living of women. Three states-Lagos, Delta and Kogi have male unemployment rate above 20 percent.

Youth Unemployment

2.66 One of the targets under MDG Goal 8 (develop a global partnership for development) is to develop and implement strategies for decent and productive work for youth in cooperation with developing countries. The indicator monitors the degree to which the youth labor force is utilized in the economy and therefore serves as a measure of the success of strategies to create jobs for youth.

2.67 **The youth unemployment rate in 2009 (using the 12 month reference period) was 24 percent**. The urban rate of unemployment was a much higher rate of 29 percent, while the rural rate was about 19 percent. Female youth unemployment was 27 percent, while male youth unemployment was 21 percent

Figure 10: Unemployment Rates



2.68 **The south eastern part of the country recorded the lowest youth unemployment rate while the south-south zone had the highest rate.** The north-west and south-west also recorded very high unemployment rates – 28.2 and 26.6 percent, respectively. State-wise, Lagos state had the highest youth unemployment rate, with as much as 54 percent of male youths unemployed. Other states with very high youth unemployment rates (above 30 percent) include: Bayelsa (41.7 percent) Rivers (40 percent), Bauchi (39 percent), Kebbi (37 percent), Edo (36 percent), Delta (33 percent), and Zamfara (32 percent). Two states had very low youth unemployment – Benue (3.5 percent) and Ebonyi (3 percent).

2.69 **Tackling youth unemployment in the south-south, north-west and south-west states would make go a long way to reducing the overall youth unemployment rate.** Together, these zones host 60 percent of the youth labor force population and account for the highest rates of unemployment. A 30 percent reduction in unemployment in each of these three zones would lead to a 27 percent improvement in the overall unemployment rate. More specifically, a 40 percent reduction in youth unemployment in Lagos, Rivers, Bayelsa, Edo, Kebbi and Bauchi states would result in a 20 percent improvement in the overall youth unemployment rate.

2.70 It is worthy of note that a number of the states with extremely high youth unemployment rates have recently embarked on direct youth employment schemes, most notably Lagos and Edo states.

Figure 11: Youth Unemployment Rates Rate (12 Months)

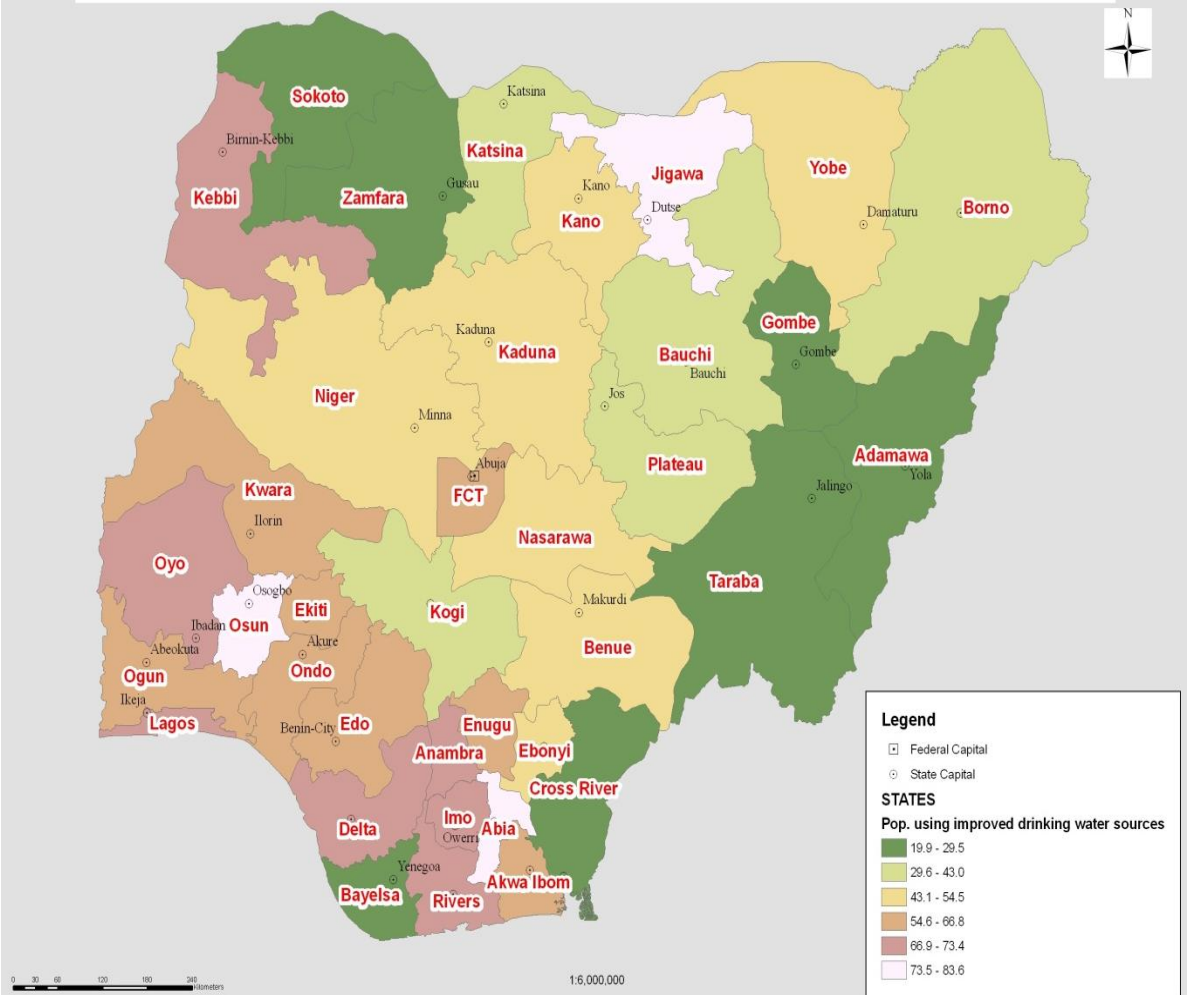
F. WATER & SANITATION

2.71 A key target under MDG goal 7 is to reduce by half between 1990 and 2015, the proportion of people without sustainable access to safe drinking water, as well as basic sanitation. This section reviews Nigeria's progress with regard to this target.

Proportion of Population with Access to Improved (Safe) Drinking Water Source

2.72 The source of drinking water is usually an indicator of whether it is suitable for drinking. Sources that are likely to provide water suitable for drinking are identified as improved sources; and they include, piped source within the dwelling or plot, public tap, tube well or borehole, and protected well or spring. Unsafe water is the direct cause of many diseases in developing countries Table 41 shows the proportion of the Nigerian population that had access to safe drinking water, as captured by the NDHS 2008. Overall in Nigeria, 54 percent of the population had access to safe drinking water in 2008. This was an improvement over the 42 percent in 2003. Of all the states, Abia state had the highest proportion (83.6 percent) while Taraba state had the lowest (20 percent).

Figure 12: Map of Nigeria showing proportion of population using improved drinking sources

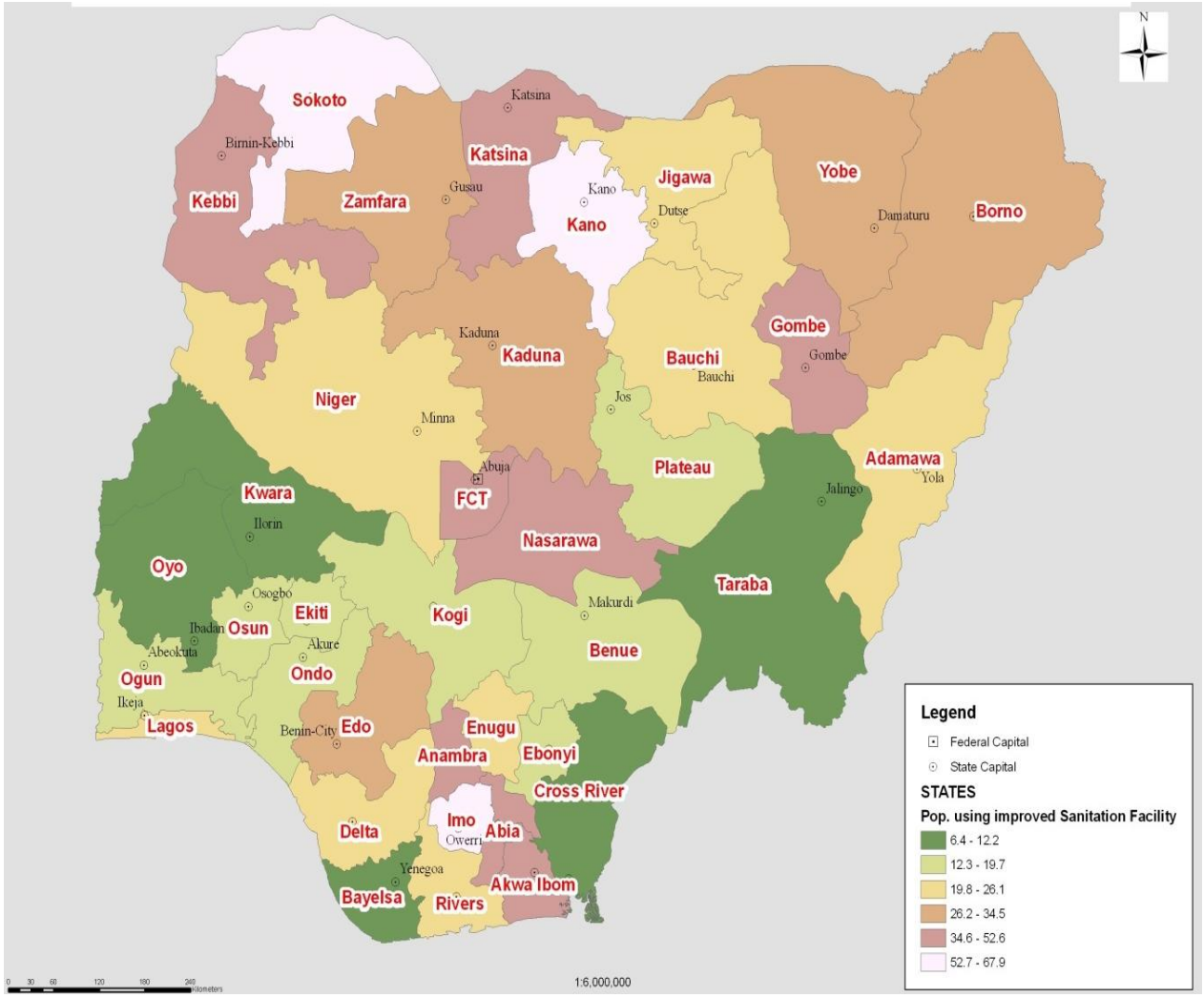


Proportion of Population with Access to Improved Sanitation

2.73 A household is classified as having an improved sanitation facility (toilet) if the facility is used only by members of one household (i.e., it is not shared with other households) and if the facility used by the household separates the waste from human contact.

2.74 **In Nigeria, only one-third of the population has access to improved sanitation facilities**. This is however an improvement over the 18 percent recorded in 2003. Anambra state has the highest proportion of its population with improved sanitation facilities (48 percent) while Bayelsa state has the lowest proportion of its population with improved sanitation facilities (6.4 percent).

Figure 13: Map of Nigeria showing proportion of population using improved sanitation facility



CHAPTER 3: PUBLIC EXPENDITURE AND SOCIOECONOMIC OUTCOMES IN SELECTED NIGERIAN STATES

A. INTRODUCTION

3.1 Certain levels and patterns of public expenditure have been recommended as critical for governments to do well on human development. For example:

- The 1991 UN Human Development Report suggested that the human expenditure ratio[5] should be at least 5 percent;
- The *Education for All – Fast Track Initiative*[6] recommends that Governments should spend at least 20 percent of their total budgets on education in order to make noticeable progress towards the MDGs; and
- The 2001 African Union Abuja Declaration, though not an explicit recommendation, committed African Governments to allocating at least 15 percent of their total expenditure on health, in order to make progress on the MDGs.

3.2 This section examines the public expenditure patterns of selected Nigerian states along the lines above in order to determine each state's performance in terms of human development expenditure; and then, presents major socioeconomic indices of these states alongside their public expenditure patterns to determine if there are any correlations. The revenue profiles of these states are initially examined. State governments, rather than the federal or consolidated government are used in this analysis because constitutionally, in Nigeria, the sub-national governments have greater responsibility for basic education and literacy, primary healthcare, reproductive health, nutrition, safe drinking water and sanitation. Relevant public expenditure data to enable this type of analysis are available for only about 12 states based on previous World Bank PER/PEFA/PEMFAR work. Of these 12 states, nine have been selected, firstly based on geo-political spread, and then, on other considerations. For example, Rivers state was also selected from the south-south geopolitical zone (depite Bayelsa also being selected) because it gets about the highest federal transfer, while Ekiti state was also selected in the south-west zone (despite Lagos being selected) because it is one of the lowest revenue earners. Also, the quality of the available public expenditure data was a consideration. The selected states are: Anambra (South East), Bauchi (North East), Bayelsa (South South), Edo (South South), Ekiti (South West), Kaduna (North West), Kogi (North Central), Lagos (South West), and Rivers (South South). These states are thus used as case studies in this study.

B. STATES' REVENUE PROFILES

3.3 **Rivers state earns the highest revenue while Ekiti state earns the lowest**. A review of the nine states' total revenue for various years within the period 2001 – 2008 reveal that Rivers

[5] The human expenditure ratio refers to the percentage of national income devoted to human priority concerns (mainly health and basic education).

[6] The Education for All–Fast Track Initiative (FTI) was launched in 2002 by the World Bank together with development partners as a global partnership to help low-income countries meet the education MDGs and the EFA goal that all children complete a full cycle of primary education by 2015.

state earned the highest revenues on average - NGN109.9 billion, in real terms, between 2005 and 2008. The next highest revenue earner was Lagos state, which earned an average of NGN60.6 billion over the period 2003 to 2008. Bayelsa state, came next, with NGN46.8 billion between 2001 and 2008. Of all the states, Ekiti was the lowest revenue earner, with an average of NGN9.3 billion over 2001 through 2006.

Table 10: Total Revenues of States (2001 constant prices, N=billion)

	2001	2002	2003	2004	2005	2006	2007	2008
Anambra				14.7	16.7	16.0		
Bayelsa	27.8	24.5	30.0	45.8	63.9	67.3	52.4	62.5
Edo				15.8	16.1	18.2	19.4	18.44
Ekiti	8.9	5.2	7.5	10.7	11.1	12.1		
Kaduna		15.9	16.1	19.3				
Kogi	11.5	8.1	8.7	11.9	12.2	15.0	14.9	
Lagos			40.3	47.5	47.6	57.8	79.4	91.2
Bauchi	12.5	16.9	11.5	14.1				
Rivers					87.6	92.5	112.5	147.1

Source: World Bank States' PEFA/PER/PEMFAR Reports

3.4 **The oil producing states earn the highest oil revenues while Lagos state generates the highest independent revenues**. A disaggregation of the total revenues of the states into federal transfers and IGR shows that while Rivers and Bayelsa received the highest federal transfers (dominated by federation oil earnings), Lagos state earned by far, the highest in terms of IGR. This is not surprising as Lagos is the economic nerve centre of the country and has the second highest population. Furthermore, the Lagos state government has enhanced its IGR collection drive immensely in recent years. Rivers and Bayelsa states earned NGN97.2 billion and NGN45.6 billion, on average, in federal transfers clearly due to their status as top oil producing states, and thus, top beneficiaries of the oil derivation fund. Edo state, a small oil producer, came a distant next to Bayelsa, with an average of NGN14.8 billion. Lagos state raised an annual average of NGN32.3 billion in IGR, while Rivers and Bayelsa states, who earn the bulk of oil revenues, raised annual average IGR of NGN12.7 billion and NGN1.1 billion, respectively.

Table 11: Federal Transfers to States (2001 constant prices, =N= billion)

	2001	2002	2003	2004	2005	2006	2007	2008
Anambra				12.3	12.5	13.6		
Bayelsa	27.2	24.0	29.5	45.1	62.7	65.1	51.0	60.5
Edo				13.7	14.3	16.5	14.4	15.32
Ekiti	8.2	4.4	6.7	9.9	10.3	11.8		
Kaduna		13.0	12.6	15.5				
Kogi	10.6	7.4	8.1	11.2	11.3	13.5	13.5	
Lagos			19.1	22.1	22.5	26.0	27.5	32.8
Bauchi	11.8	16.2	10.9	13.3				
Rivers					76.2	80.5	98.6	133.4

Source: World Bank States' PEFA/PER/PEMFAR Reports

Table 12: States' Internally Generated Revenue (2001 Constant Prices, =N= billion)

	2001	2002	2003	2004	2005	2006	2007	2008
Anambra				2.5	4.2	2.4		
Bayelsa	0.7	0.4	0.5	0.7	1.2	2.2	1.4	2.0
Edo				2.1	1.8	1.6	1.6	1.96
Ekiti	0.7	0.7	0.8	0.9	0.8	0.4		
Kaduna		2.9	3.5	3.7				
Kogi	0.9	0.7	0.6	0.6	0.9	1.6	1.4	
Lagos			21.3	22.8	24.0	31.5	40.9	53.6
Bauchi	0.7	0.6	0.6	0.7				
Rivers					11.4	12.0	14.0	13.7

Source: World Bank States' PEFA/PER/PEMFAR Reports

C. STATES EXPENDITURES PATTERNS

3.5 An assessment of the states' expenditure patterns using the three human development expenditure indicators described at the start of this chapter, as well as other indicators, shows the following:

Human Expenditure Ratio[7]

3.6 **Of the six states for which the computation of this ratio was possible, three exceeded the recommended threshold of 5 percent.** These states are Kogi, Edo and Bayelsa, with Kogi recording the highest ratio of 12.6 percent. Rivers state, which rakes in the highest average annual revenues, recorded the lowest human expenditure ratio in 2007.

Table 13: Human Expenditure Ratio in 2007 (%)

State	Human Expenditure Ratio
Anambra	
Bayelsa	7.1
Edo	7.2
Ekiti	3.5
Kaduna	
Kogi	12.6
Lagos	1.1
Bauchi	
Rivers	0.8

Source: Staff Computations

[7] Nigeria is yet to start computing state-level GDP, but the UNDP in 2009, employed the index of economic activities in 2007 as a proxy for states' GDP. This measure is used as denominator to compute Human Expenditure Ratio for states in 2007 only, as a GDP proxy is not readily available for other years.

Education Expenditure

3.7 **Using the EFA-FTI threshold for education expenditure, only two states – Ekiti and Kogi -met and exceeded the threshold**. Over the period 2001-2006, Ekiti spent an average of 28 percent of its total budget on education, while Kogi spent an average of 24 percent over the period 2001 – 2007. Kaduna state recorded a rather low education expenditure proportion of 10.8 percent over 2002-2004. Other states with low proportions include: Lagos (11.3 percent), Rivers (11.7 percent) and Bayelsa (12.3 percent).

Table 14: Education Expenditure in Percent of Total Expenditure

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Amambra				23.5	14.7	13.1			
Bayelsa	15.8	16.5	16.4	10.9	10.3	9.4	10.1	8.6	
Edo				16.8	8.5	12	14.1	11	16.7
Ekiti	33.3	24.4	35.7	25.4	25.3	26.4			
Kaduna		12.0	12.3	8.2					
Kogi	24.9	27.2	25.8	26.4	23.1	17.1	22.8		
Lagos					17.3	8.8	9.8	9.1	
Bauchi	11.4	9.8	13.1	13.0					
Rivers					6.4	9.1	7.9	16.4	18.8

Sources: Staff computations based on States PEMFAR/PER/PEFA Reports

3.8 **Bayelsa state records the highest per capita education expenditure, while Bauchi records the lowest.** While recognizing the limitations of per capita measures to gauge performance, an examination of the per capita education expenditure of the various states shows that in real terms, Bayelsa state was by far, the peak of the pack, with an average of NGN8,926 over 2001 to 2008. Rivers state came next with an average of NGN1,881 over 2005-2008. Kaduna and Bauchi states had the lowest per capita education expenditure levels of NGN379 and NGN356 over the periods 2002-2004 and 2001-2004, respectively.

Table 15: Per Capita Education spend (In 2001 constant Naira)

	2001	2002	2003	2004	2005	2006	2007	2008
Anambra								
Bayelsa	2,832.1	2,072.8	4,401.3	5,450.8	10,997.3	15,733.6	15,644.0	14,276.9
Edo				961	552.8	792.4	1020.8	726.1
Ekiti	1,363.0	735.3	1,192.3	1,020.2	1,015.4	889.0		
Kaduna		350.5	441.0	43.9				
Kogi	1163.0	982.6	678.0	987.5	768.2	766.5	864.9	
Lagos					773.9	707.3	942.2	1042.0
Bauchi	442	374.2	341.1	265.6				
Rivers					1,074.5	1,541.2	1,539.6	3,367.1

Sources: Staff computations based on States PEMFAR/PER/PEFA Reports

Health Expenditure

3.9 **All the evaluated states devoted an average of less than 10 percent of their total expenditure to health.** An assessment of the health expenditure patterns of the nine case study states shows that no state attained the threshold of 15 percent of total revenue as specified by the African Union 2001 *Abuja Declaration*. While the *Abuja Declaration* referred to countries' general government expenditures, it is the sub-national and central governments that constitute the general government, and thus, the expenditure pattern of each constituent tier of government should conform to the requirement. Bauchi state recorded the highest level at an average of 9.1 percent from 2002 through 2004. Kogi was next with an average of 7.9 percent over the period 2001 to 2007. Kaduna and Anambra states spent rather low proportions of their budgets on health – 4.5 and 4.6 percent, respectively.

Table 16: Health Expenditure in Percent of Total Expenditure

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Amambra				3.9	4.6	5.2			
Bayelsa	5.3	5.4	6.1	5.7	5.8	1.2	4.8	4.9	
Edo				8.5	5.9	5.5	6	5	4.4
Ekiti	7.8	8.0	8.0	5.7	4.9	6.9			
Kaduna		5.6	4.4	3.4					
Kogi	8.3	8.3	9.3	8.4	7.7	7.0	6.1		
Lagos					8.5	4.6	6.3	6.3	
Bauchi	7.9	6.8	10.4	11.3					
Rivers					3.8	3.3	3.5	7.8	9.0

Sources: Staff computations based on WB States PEMFAR/PER/PEFA Reports

3.10 In terms of per capita health expenditure, Bayelsa and Rivers states again topped the list (just like with the per capital education expenditure), with averages of NGN3,719 and 872, respectively. Kaduna recorded the lowest real per capita heath spend (NGN105) with Ekiti following with NGN248.

Table 17: Real Per Capita Health spend (In 2001 constant Naira)

	2001	2002	2003	2004	2005	2006	2007	2008
Amambra								
Bayelsa	967.00	668.60	1,618.10	2,882.00	6,125.50	1,937.30	7,395.30	8,158.20
Edo				485.1	388.6	361.4	437.9	328.2
Ekiti	321.0	241.6	267.4	229.1	196.6	233.4		
Kaduna		16.2	158.6	140.0				
Kogi	389.5	300.7	243.8	314.6	256.0	312.3	230.1	
Lagos					381.3	367.5	607.6	716.1
Bauchi	303.5	260.9	271.0	230.5				
Rivers					638.2	569.3	676.4	1606.2

Sources: Staff computations based on States PEMFAR/PER/PEFA Reports

Social Protection Expenditure

3.11 Historically, most governments in Nigeria do not allocate substantial portions of their budgets to social protection areas. Of recent though, a number of states have begun to invest in direct employment or job creation schemes, e.g. Lagos, Edo, Ekiti. However, their public expenditure classification methods make it rather difficult to capture. More so, the states' Public Expenditure Reports from which this study sourced its data do not have such level of detail. Very broad estimates of social protection spend in some of the nine case study states are thus shown in Table 18 below. On average, the states spent less than 2 percent of their budgets on social protection.

Table 18: Social Protection Expenditure in Percent of Total Expenditure

	2001	2002	2003	2004	2005	2006	2007	2008
Amambra								
Bayelsa	1.9	1.0	1.0	1.1	0.6	1.1	1.2	3.5
Edo								
Ekiti	0.4	0.3	0.3	0.4	0.2	0.2		
Kaduna		0.3	0.3					
Kogi								
Lagos					0.2	0.4	0.4	0.4
Bauchi	0.5	0.4	0.5	0.7				
Rivers								

Sources: Staff computations based on States PEMFAR/PER/PEFA Reports

3.12 Of the four states with available data, Bayelsa led the pack in terms of per capita social protection expenditure.

Table 19: Real Per Capita Soc. Protection spend (in 2001 constant naira)

	2001	2002	2003	2004	2005	2006	2007	2008
Amambra								
Bayelsa	345.4	133.7	258.9	563.9	606.5	1,878.6	1,877.3	5,843.1
Edo								
Ekiti	16.8	10.3	11.5	14.7	9.1	8.4		
Kaduna								
Kogi								
Lagos					8.4	28.9	36.0	47.7
Bauchi	20.7	13.8	12.4	15.0				
Rivers								

Source: Staff computations based on States PEMFAR/PER/PEFA Reports

D. STATES HUMAN DEVELOPMENT OUTCOMES

3.13 Key socioeconomic/human development indices of the nine states are presented in table 21 below. State level data on major health indicators like maternal mortality rate, infant mortality rate and child mortality rate are not available; hence process indicators like immunization

coverage, proportion of births attended by skilled health workers and antenatal care coverage are used as indicators of infant, child and maternal health. Education enrolment rates and literacy rates are used as indicators of education sector performance.

3.14 Overall, Bauchi state seems to have the worst human development outcomes of all nine states, and all its outcomes are worse than the national averages.

Table 20: Socio economic Characteristics of Selected Nigerian States

Socioeconomic Characteristics of Selected Nigerian States										
	ANAMBRA	BAYELSA	EDO	EKITI	KADUNA	KOGI	LAGOS	BAUCHI	RIVERS	National Average
Year of state establishment	1976	1996	1991	1996	1967	1991	1967	1976	1967	
Population (2006 Census)	4,177,828	1,704,515	3,233,366	2,398,957	6,113,503	3,314,043	9,113,605	4,653,066	5,198,716	
Location	South East	South South	South South	South West	North West	North Centra	South West	North East	South South	
Land size (Sq Kilometers)	4,865	9,059	19,187	5,435	42,481	27,747	3,671	49,119	10,575	
Estimated Gross State Domestic Product, Million US$ (2007)	727.5	9,639.0	1,134.7	775.3	4,437.6	503.4	29,306.8	761.3	26,492.2	
Estimated income per capita, US$ (2007)	163.1	5,388.0	327.6	316.6	707.0	147.0	3,215.72	166.8	5,210.7	
Net Enrolment in Primary education[2]	67.7	67.4	70.6	80.7	55.6	67.4	62.7	43.6	62.0	**57.0**
Net Enrolment in Secondary Education[2]	58.3	58.1	58.7	66	36.9	54.9	64.5	25.5	62.9	**47.8**
Adult Literacy rate[2]	78.0	62.2	69.5	69.7	48.5	54.1	88.0	27.1	81.1	**57.4**
Youth Literacy rate[2]	93.3	73.8	85	90.5	62.9	76.6	92	36.4	89.0	**70.7**
Immunization Coverage[2]										
Measles	52.3	51.4	68.2	65.9	45.5	55.6	60.2	38.3	62.3	**47.2**
Polio	61.6	63.8	72.5	74.6	63	57.7	72.4	58.2	62.9	**58.9**
Tuberculosis	53.8	48.8	72.2	75.9	41.7	35.7	57.4	28	55	**41.7**
Births Attended by Skilled Health Workers[1]	95.2	21.6	79.9	81.2	21.8	75.8	82.8	15.7	63.6	**38.9**
Antenatal care coverage (at least 1 visit)[3]	98.3	58.4	93.7	98.4	61.6	86.2	99.2	51.4	86.6	**68.3**
Unemployment Rate[2]	12.3	18.4	22.1	9.2	16.5	20.5	21.8	29.5	22.5	**15.3**
Youth Unemployment Rate[2]	24.1	41.7	36.4	19	17.6	26.5	49.4	38.8	40	**23.9**
Proportion of population with access to improved source of drinking water[1]	68.4	27.2	59.3	61.3	48.5	43	67.7	34.3	69	**54.2**
Proportion of population with access to improved sanitation[1]	47.6	6.4	34.5	18	33.4	19.7	25.3	22.5	22.7	**31.2**
Sources:										
1 NDHS 2008										
2 NLSS 2009										
3 MICS 2007										

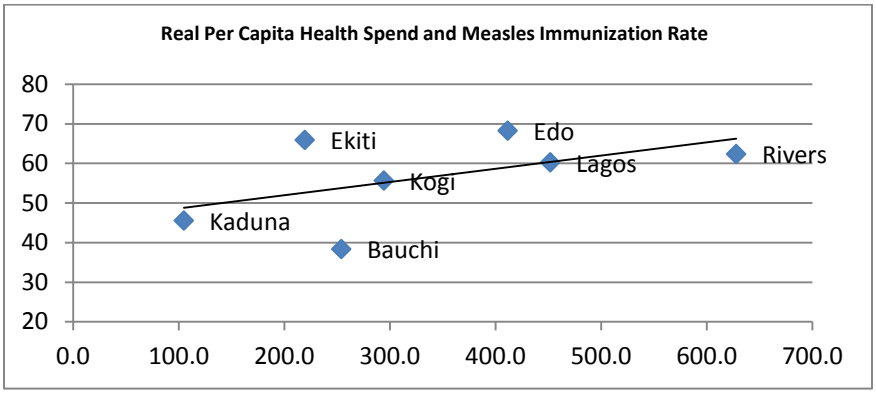
E. PUBLIC EXPENDITURE PATTERNS IN RELATION TO HUMAN DEVELOPMENT OUTCOMES

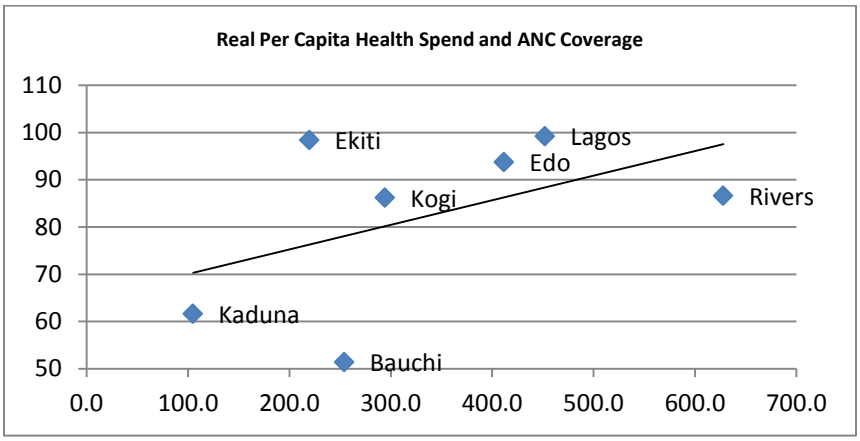
3.15 We make use of scatter plots to illustrate the relationships between human development expenditure patterns and human development outcomes in the selected states. Bayelsa state was omitted in this analysis because of its tendency to distort general patterns, given its extremely high per capita expenditure levels as it earns vast oil revenues and has the lowest population. Anambra was also omitted because of peculiar data constraints. The following relationships are observed from scatter plots:

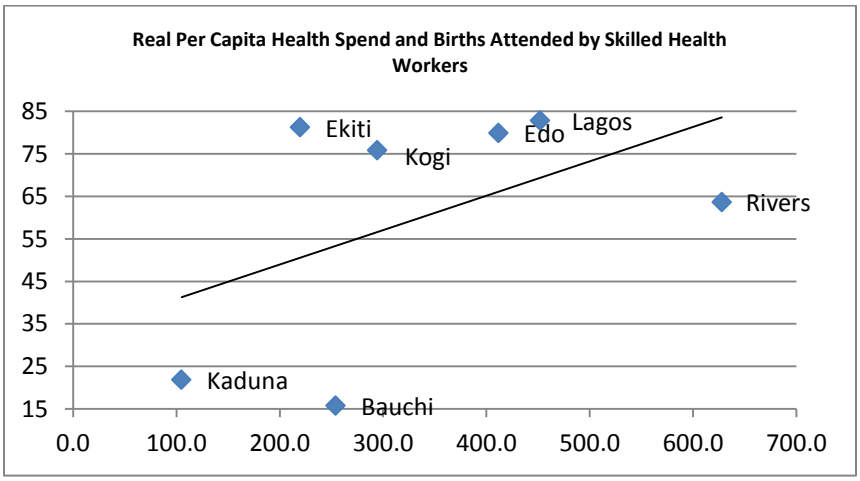
(a) Health Expenditure and Health Outcomes

3.16 **Scatter plots of health expenditure versus health MDG outcomes suggest moderately linear and positive correlations overall**. In this section, we use states' real per capita health expenditure (2004-2006 average for three states; 2002-2004 average for two states and 2005-2007 for two states) as explanatory variables and three of the health MDG indicators (measles immunization rate, antenatal care coverage and proportion of births attended by skilled health workers) as dependent variables on various scatter plots as shown below. We observe that in

general, the relationship between health expenditure and health outcomes follow a general positive pattern, although there are some deviations from this pattern.





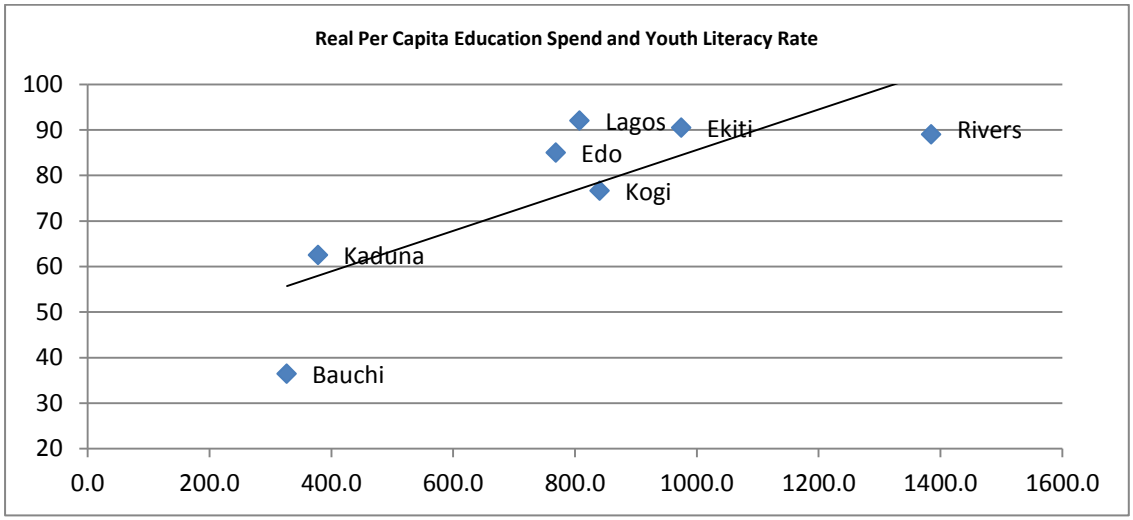


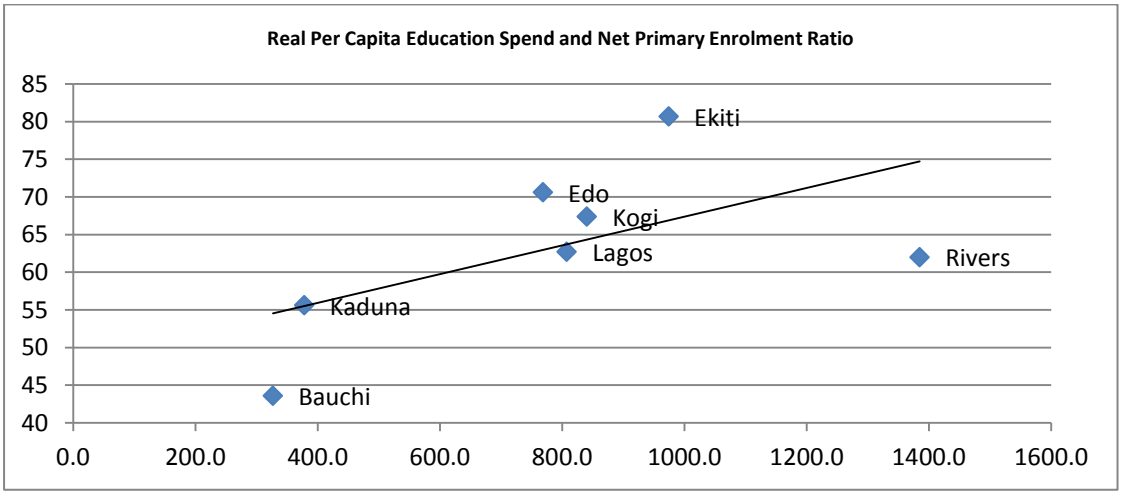
3.17 **One striking observation is that Ekiti state, with relatively low per capita health expenditure has about the best health outcomes.** There are some observable fairly direct relationships like the cases of Kaduna and Bauchi states, which have very low per capita health expenditure and also have the worst health outcomes; and Edo and Lagos states which have relatively high per capita health expenditure and relatively superior outcomes. However, Ekiti state has about the same relatively low level of per capita health expenditure as Bauchi state (a little lower even), and has about the best health outcomes. On the contrary, Rivers state, which

has the highest per capita health expenditure, does not do well on health outcomes, especially the antenatal care coverage and proportion of child births attended by skilled health workers.

(b) Education Expenditure and Education Outcomes

3.18 **Scatter plots of education expenditure versus education MDG outcomes suggest moderately linear, positive correlations overall.** In this section, we use states' real per capita education expenditure (2004-2006 average for four states; 2002-2004 average for two states and 2005-2007 for two states) as explanatory variables and three of the education MDG indicators (youth literacy rate and net primary school enrolment ratio) as dependent variables on two scatter plots as shown below. In general, the relationships between education expenditure and education outcomes are fairly direct and positive: Bauchi and Kaduna states have the lowest real per capita education expenditure and the worst education outcomes, while Ekiti has next to the highest real per capita education expenditure and about the best outcomes. However, Rivers state, with by far the highest level of per capita education expenditure does not do better that the other states on education outcomes. In fact, it has one of the worst outcomes in terms of net primary school enrolment ratio.





3.19 **Ekiti and Rivers states present cases for further analysis.** Overall, the scatter plots illustrate that there is a fairly positive relationship between states' per capita education and health expenditure and education and health outcomes, but this relationship is stronger between education expenditure and outcomes. The fact that the relationships are not fully linear indicates that there are other factors that affect outcomes outside the quantum of public expenditure. Ekiti state is the major outlier in health, indicating that there are other factors in Ekiti state that affect the health outcomes. Indeed, of all the states examined, Ekiti state has about the lowest revenue, has the lowest per capita health expenditure level, but has superior outcomes in both health and education. Anecdotal evidence suggests a high level of private sector participation in the health sector in Ekiti state. Rivers state is also a major outlier, in both health and education, having the highest revenue, highest per capita expenditure levels, but largely inferior health and education outcomes – denoting the possibility of other interferences with health and education outcomes, a possibility being inefficiency of public expenditure. Both states thus present cases for further analysis in the relationship between revenue, expenditure and human development outcomes.

CHAPTER 4: CONCLUDING REMARKS

4.1 The data from recent household surveys in Nigeria demonstrate that socioeconomic indices are improving in Nigeria, but not fast enough as to enable Nigeria attain many of the MDGs by the target year of 2015. Nigeria's high economic growth over the last decade and substantial revenues, largely from oil, has not had a corresponding impact on the socioeconomic conditions of the Nigerian people.

4.2 This study notes that sub-national governments have a vast responsibility for service delivery in the main human development areas of primary health care and education, and thus, for Nigeria to make good progress on the MDGs, attention should be placed on state governments' efforts to improve human development. Indeed, four of the eight MDGs relate fully to health and education, with at least another two which relate partially.

4.3 The study found that higher per capita expenditure in health and education do not always lead to superior health and education outcomes. While there were some strong positive correlations observed from scatter plots of health and education spending versus health and education outcomes (stronger in the case of education), there were outliers, indicating non-fully linear relationships and thus, the existence of extraneous factors which also affect outcomes. This thus suggests that high levels of per capita human development expenditure may be important but not sufficient to ensure good socioeconomic outcomes. The striking example of Ekiti state, with superior outcomes, despite low levels of per capita expenditure in health calls for further analysis. Similarly, the cases of Rivers and Bayelsa[8] states, with the highest levels of per capita health and education expenditure, but largely inferior outcomes, calls for further analysis. There is the strong likelihood that issues of public expenditure efficiency would play an important role in determining outcomes but this notion has to be fully explored by further analytic work.

4.4 Respective state governments will do well to identify the factors that play the greatest role in ensuring superior socioeconomic outcomes in their states and leverage such factors. At the same time, they would need to control for factors that are a drag on outcomes, as much as these factors lie within their influence. It seems safe to assume though that governments may need to pay closer attention to the efficiency of spending and reduce wastages.

[8] Bayelsa state was removed from the scatter diagrams because it was an extreme outlier with its average per capita expenditure more than four times that of Rivers state (which had the second highest per capita expenditure).

APPENDIX I: Data Tables

Table 22: Net Primary Education Enrollment Ratio

	Male	Female	Total
National	57.6	56.4	57.0
SECTOR			
Urban	61.7	60.7	61.2
Rural	53.5	52.1	52.8
ZONE			
North Central	63.0	61.6	62.3
North East	39.8	38.6	39.2
North West	38.6	35.8	37.2
South East	71.6	71.4	71.5
South South	66.6	65.5	66.1
South West	70.6	70.6	70.6
STATE			
ABIA	73.1	71.3	72.2
ADAMAWA	51.0	52.1	51.6
AKWA IBOM	62.6	58.9	60.8
ANAMBRA	69.2	66.2	67.7
BAUCHI	47.2	40.0	43.6
BAYELSA	66.8	68.0	67.4
BENUE	64.9	64.8	64.9
BORNO	33.2	30.6	31.9
CROSS RIVER	69.7	65.9	67.8
DELTA	66.3	69.2	67.7
EBONYI	79.6	82.8	81.2
EDO	72.5	68.8	70.6
EKITI	81.2	80.2	80.7
ENUGU	70.9	71.7	71.3
GOMBE	35.7	29.0	32.4
IMO	65.1	65.2	65.2
JIGAWA	37.7	36.6	37.2
KADUNA	53.8	57.4	55.6
KANO	37.0	33.2	35.1
KATSINA	42.4	36.9	39.6
KEBBI	35.5	29.1	32.3
KOGI	65.9	68.8	67.4
KWARA	62.3	63.0	62.6
LAGOS	65.1	60.3	62.7
NASSARAWA	62.6	60.4	61.5
NIGER	49.1	42.7	45.9
OGUN	70.1	68.0	69.1
ONDO	75.0	76.9	75.9
OSUN	69.2	72.3	70.7
OYO	63.0	66.0	64.5
PLATEAU	68.4	60.9	64.7
RIVERS	62.0	62.1	62.0
SOKOTO	36.7	31.9	34.3
TARABA	45.4	49.1	47.3
YOBE	26.1	30.6	28.4
ZAMFARA	27.2	25.7	26.4
FCT ABUJA	68.0	70.3	69.2

Source: HNLSS, 2009

Table 23: Net Secondary Education Enrolment Ratio

	Male	Female	Total
National	49.1	46.4	47.8
SECTOR			
Urban	56.8	55.0	55.9
Rural	41.4	37.9	39.6
ZONE			
North Central	53.4	47.9	50.7
North East	34.4	28.2	31.3
North West	28.2	23.2	25.7
South East	61.1	61.9	61.5
South South	58.5	60.3	59.4
South West	63.8	63.2	63.5
STATE			
ABIA	64.8	65.8	65.3
ADAMAWA	43.2	28.2	35.7
AKWA IBOM	52.0	56.5	54.3
ANAMBRA	57.1	59.5	58.3
BAUCHI	29.1	21.9	25.5
BAYELSA	56.5	59.7	58.1
BENUE	49.7	51.3	50.5
BORNO	32.6	26.6	29.6
CROSS RIVER	68.8	68.0	68.4
DELTA	55.1	52.9	54.0
EBONYI	54.6	58.9	56.7
EDO	58.0	59.4	58.7
EKITI	64.4	67.5	66.0
ENUGU	58.3	62.4	60.4
GOMBE	33.7	29.2	31.5
IMO	70.8	63.1	67.0
JIGAWA	23.8	20.2	22.0
KADUNA	39.5	34.4	36.9
KANO	29.6	27.2	28.4
KATSINA	25.0	22.3	23.6
KEBBI	24.7	20.2	22.4
KOGI	56.9	53.0	54.9
KWARA	59.5	52.0	55.8
LAGOS	67.3	61.7	64.5
NASSARAWA	52.3	39.7	46.0
NIGER	41.4	39.8	40.6
OGUN	63.3	53.1	58.2
ONDO	63.7	70.2	67.0
OSUN	64.5	64.3	64.4
OYO	59.3	62.4	60.9
PLATEAU	45.3	45.8	45.6
RIVERS	60.2	65.5	62.9
SOKOTO	33.0	21.7	27.4
TARABA	39.3	39.1	39.2
YOBE	28.5	24.0	26.3
ZAMFARA	22.2	16.3	19.3
FCT ABUJA	69.0	54.0	61.5

Source: HNLSS, 2009

Table 24: Proportion of Pupils Starting Grade 1 Who Reach Last Grade of Primary School

State	
Abia	93.6
Adamawa	100.0
Akwa Ibom	96.8
Anambra	95.8
Bauchi	90.0
Bayelsa	97.1
Benue	99.0
Borno	65.6
Cross River	97.9
Delta	95.8
Ebonyi	97.7
Edo	92.9
Ekiti	100.0
Enugu	95.7
Gombe	77.1
Imo	96.4
Jigawa	92.6
Kaduna	91.0
Kano	88.6
Katsina	94.0
Kebbi	95.2
Kogi	98.4
Kwara	100.0
Lagos	95.4
Nasarawa	99.2
Niger	94.3
Ogun	100.0
Ondo	99.0
Osun	97.6
Oyo	97.4
Plateau	62.5
Rivers	96.5
Sokoto	92.0
Taraba	88.0
Yobe	70.8
Zamfara	94.4
Abuja - FCT	93.4
National	**94.0**

Source: MICS 2007

Table 25: Youth (15-24 years old) Literacy Rate- Can Read and Write in Any Language

Percentage distribution of youth (15 - 24) who are literate in any language by gender, urban/rural, geopolitical zone and state

		Sex					
		Male		Female		Total	
		Literacy in any language		Literacy in any language		Literacy in any language	
		Literate in either English or Local language	Not Literate in either English or Local language	Literate in either English or Local language	Not Literate in either English or Local language	Literate in either English or Local language	Not Literate in either English or Local language
Sector	Total	74.9	25.1	66.5	33.5	70.7	29.3
	URBAN	88.3	11.7	83.9	16.1	86.1	13.9
	RURAL	66.9	33.1	55.9	44.1	61.4	38.6
Geo-Political Zone	North Central	79.3	20.7	65.9	34.1	72.8	27.2
	North East	53.6	46.4	39.7	60.3	46.8	53.2
	North West	54.0	46.0	37.0	63.0	45.5	54.5
	South East	91.7	8.3	90.7	9.3	91.2	8.8
	South South	84.9	15.1	82.6	17.4	83.7	16.3
	South West	90.8	9.2	88.4	11.6	89.7	10.3
State code	ABIA	88.2	11.8	84.8	15.2	86.5	13.5
	ADAMAWA	66.3	33.7	50.7	49.3	58.4	41.6
	AKWA IBOM	90.3	9.7	86.1	13.9	88.3	11.7
	ANAMBRA	93.9	6.1	93.0	7.0	93.3	6.7
	BAUCHI	43.7	56.3	27.5	72.5	36.4	63.6
	BAYELSA	77.4	22.6	70.9	29.1	73.8	26.2
	BENUE	84.7	15.3	71.5	28.5	78.4	21.6
	BORNO	49.9	50.1	40.4	59.6	45.2	54.8
	CROSS RIVER	82.1	17.9	76.6	23.4	79.1	20.9
	DELTA	78.9	21.1	77.0	23.0	77.9	22.1
	EBONYI	93.4	6.6	93.6	6.4	93.5	6.5
	EDO	86.2	13.8	83.7	16.3	85.0	15.0
	EKITI	92.0	8.0	88.8	11.2	90.5	9.5
	ENUGU	92.2	7.8	89.3	10.7	90.7	9.3
	GOMBE	55.0	45.0	42.5	57.5	49.2	50.8
	IMO	91.0	9.0	91.7	8.3	91.4	8.6
	JIGAWA	37.4	62.6	27.2	72.8	32.5	67.5
	KADUNA	74.3	25.7	51.8	48.2	62.9	37.1
	KANO	59.5	40.5	48.1	51.9	53.7	46.3
	KATSINA	43.7	56.3	21.7	78.3	32.0	68.0
	KEBBI	44.5	55.5	24.0	76.0	35.0	65.0
	KOGI	81.8	18.2	70.9	29.1	76.6	23.4
	KWARA	81.2	18.8	76.3	23.7	79.0	21.0
	LAGOS	92.8	7.2	91.1	8.9	92.0	8.0
	NASSARAWA	75.3	24.7	56.8	43.2	65.6	34.4
	NIGER	65.4	34.6	39.6	60.4	52.4	47.6
	OGUN	87.7	12.3	86.5	13.5	87.2	12.8
	ONDO	91.8	8.2	92.0	8.0	91.9	8.1
	OSUN	89.8	10.2	85.6	14.4	87.7	12.3
	OYO	88.5	11.5	83.1	16.9	86.0	14.0
	PLATEAU	78.2	21.8	72.1	27.9	75.4	24.6
	RIVERS	87.6	12.4	90.4	9.6	89.0	11.0
	SOKOTO	49.9	50.1	30.4	69.6	40.9	59.1
	TARABA	59.8	40.2	45.4	54.6	52.5	47.5
	YOBE	50.2	49.8	29.7	70.3	39.5	60.5
	ZAMFARA	48.1	51.9	30.8	69.2	39.8	60.2
	FCT ABUJA	89.1	10.9	76.1	23.9	81.6	18.4

Source: HNLSS 2009

Table 26: Adult (18years and Above) Literacy Rate- Who Can Read and Write in Any Language

Percentage distribution of adult (18years and above) who are literate in any language by gender, urban/rural, geopolitical zone and state

		Sex					
		Male		Female		Total	
		Literacy in any language		Literacy in any language		Literacy in any language	
		Literate in either English or Local language	Not Literate in either English or Local language	Literate in either English or Local language	Not Literate in either English or Local language	Literate in either English or Local language	Not Literate in either English or Local language
Sector	Total	65.4	34.6	49.6	50.4	57.4	42.6
	URBAN	81.8	18.2	67.9	32.1	74.8	25.2
	RURAL	55.0	45.0	38.4	61.6	46.5	53.5
Geo-Political Zone	North Central	65.0	35.0	43.1	56.9	54.2	45.8
	North East	42.7	57.3	25.4	74.6	34.2	65.8
	North West	43.9	56.1	27.3	72.7	35.6	64.4
	South East	79.6	20.4	66.5	33.5	72.6	27.4
	South South	79.6	20.4	64.2	35.8	71.8	28.2
	South West	83.0	17.0	68.7	31.3	75.8	24.2
State code	ABIA	82.9	17.1	70.4	29.6	76.1	23.9
	ADAMAWA	53.1	46.9	33.1	66.9	43.4	56.6
	AKWA IBOM	87.0	13.0	72.9	27.1	79.7	20.3
	ANAMBRA	83.8	16.2	73.3	26.7	78.0	22.0
	BAUCHI	36.7	63.3	18.1	81.9	27.1	72.9
	BAYELSA	79.2	20.8	48.1	51.9	62.2	37.8
	BENUE	71.6	28.4	46.1	53.9	59.4	40.6
	BORNO	41.3	58.7	27.4	72.6	34.5	65.5
	CROSS RIVER	72.7	27.3	59.0	41.0	65.5	34.5
	DELTA	71.6	28.4	55.1	44.9	63.3	36.7
	EBONYI	72.1	27.9	57.5	42.5	64.5	35.5
	EDO	76.3	23.7	62.6	37.4	69.5	30.5
	EKITI	76.6	23.4	63.2	36.8	69.7	30.3
	ENUGU	73.2	26.8	55.1	44.9	63.4	36.6
	GOMBE	43.0	57.0	27.5	72.5	35.8	64.2
	IMO	82.0	18.0	69.8	30.2	75.5	24.5
	JIGAWA	34.4	65.6	16.3	83.7	25.0	75.0
	KADUNA	58.8	41.2	37.6	62.4	48.5	51.5
	KANO	51.5	48.5	36.1	63.9	43.7	56.3
	KATSINA	34.3	65.7	18.0	82.0	25.8	74.2
	KEBBI	32.5	67.5	16.9	83.1	25.1	74.9
	KOGI	64.7	35.3	43.7	56.3	54.1	45.9
	KWARA	60.7	39.3	41.8	58.2	51.0	49.0
	LAGOS	92.2	7.8	83.4	16.6	88.0	12.0
	NASSARAWA	64.3	35.7	36.3	63.7	50.1	49.9
	NIGER	48.4	51.6	26.3	73.7	37.3	62.7
	OGUN	78.7	21.3	65.9	34.1	72.4	27.6
	ONDO	80.6	19.4	66.2	33.8	73.0	27.0
	OSUN	80.1	19.9	57.1	42.9	67.5	32.5
	OYO	74.8	25.2	58.6	41.4	66.4	33.6
	PLATEAU	72.0	28.0	53.9	46.1	63.3	36.7
	RIVERS	86.7	13.3	75.4	24.6	81.1	18.9
	SOKOTO	40.9	59.1	26.9	73.1	33.9	66.1
	TARABA	44.4	55.6	27.1	72.9	35.7	64.3
	YOBE	36.4	63.6	19.7	80.3	28.2	71.8
	ZAMFARA	40.0	60.0	27.6	72.4	33.7	66.3
	FCT ABUJA	77.9	22.1	63.5	36.5	70.8	29.2

Source: HNLSS 2009

Table 27: Youth (15-24 years old) Literacy Rate- Can Read and Write in English Language

		Male		Female		Total	
		Yes	**No**	**Yes**	**No**	**Yes**	**No**
Sector	National	68.5	31.5	60.1	39.9	64.3	35.7
	Urban	84.8	15.2	78.8	21.2	81.8	18.2
	Rural	58.8	41.2	48.6	51.4	53.8	46.2
Geo-Political	North East	75.1	24.9	62.4	37.6	68.9	31.1
	North Central	45.0	55.0	30.6	69.4	37.9	62.1
	North West	39.5	60.5	22.2	77.8	30.9	69.1
	South East	90.5	9.5	89.6	10.4	90.0	10.0
	South South	82.8	17.2	80.9	19.1	81.8	18.2
	South west	87.0	13.0	83.2	16.8	85.2	14.8
State	Abia	86.5	13.5	84.2	15.8	85.3	14.7
	Adamawa	60.5	39.5	43.1	56.9	51.7	48.3
	Akwa Ibom	86.3	13.7	82.3	17.7	84.4	15.6
	Anambra	93.3	6.7	91.3	8.7	92.1	7.9
	Bauchi	34.0	66.0	19.9	80.1	27.6	72.4
	Bayelsa	76.2	23.8	68.2	31.8	71.8	28.2
	Benue	80.3	19.7	66.9	33.1	74.0	26.0
	Borno	39.3	60.7	29.3	70.7	34.3	65.7
	Cross River	79.1	20.9	75.9	24.1	77.4	22.6
	Delta	78.7	21.3	76.7	23.3	77.7	22.3
	Ebonyi	91.7	8.3	92.1	7.9	91.9	8.1
	Edo	85.8	14.2	83.5	16.5	84.7	15.3
	Ekiti	89.7	10.3	84.5	15.5	87.2	12.8
	Enugu	91.4	8.6	88.9	11.1	90.1	9.9
	Gombe	45.3	54.7	27.7	72.3	37.0	63.0
	Imo	89.5	10.5	91.0	9.0	90.3	9.7
	Jigawa	24.3	75.7	14.8	85.2	19.8	80.2
	Kaduna	66.3	33.7	43.8	56.2	54.9	45.1
	Kano	42.8	57.2	23.4	76.6	33.0	67.0
	Katsina	33.0	67.0	11.4	88.6	21.5	78.5
	Kebbi	28.9	71.1	13.4	86.6	21.7	78.3
	Kogi	79.5	20.5	69.6	30.4	74.8	25.2
	Kwara	75.2	24.8	72.4	27.6	73.9	26.1
	Lagos	91.3	8.7	89.3	10.7	90.3	9.7
	Nassarawa	71.6	28.4	52.6	47.4	61.6	38.4
	Niger	58.8	41.2	35.0	65.0	46.8	53.2
	Ogun	81.9	18.1	78.7	21.3	80.5	19.5
	Ondo	89.9	10.1	87.8	12.2	88.9	11.1
	Osun	83.8	16.2	77.5	22.5	80.7	19.3
	Oyo	81.0	19.0	73.6	26.4	77.5	22.5
	Plateau	73.9	26.1	68.2	31.8	71.2	28.8
	Rivers	84.6	15.4	88.2	11.8	86.5	13.5
	Sokoto	30.5	69.5	12.6	87.4	22.3	77.7
	Taraba	56.2	43.8	41.9	58.1	49.0	51.0
	Yobe	36.8	63.2	18.5	81.5	27.3	72.7
	Zamfara	25.1	74.9	18.2	81.8	21.8	78.2
	FCT Abuja	89.1	10.9	75.3	24.7	81.1	18.9

Source: HNLSS 2009

Table 28: Adult (18years and Above) Literacy Rate- Who Can Read and Write in English Language

		Male		Female		Total	
		Yes	No	Yes	No	Yes	No
Sector	National	56.6	43.4	41.8	58.2	49.1	50.9
	Urban	75.0	25.0	60.4	39.6	67.7	32.3
	Rural	44.9	55.1	30.4	69.6	37.5	62.5
Geo-Political	North East	59.8	40.2	38.6	61.4	49.3	50.7
	North Central	31.8	68.2	16.8	83.2	24.4	75.6
	North West	25.7	74.3	12.6	87.4	19.1	80.9
	South East	77.8	22.2	64.4	35.6	70.6	29.4
	South South	77.2	22.8	61.7	38.3	69.3	30.7
	South west	74.3	25.7	58.6	41.4	66.4	33.6
State	Abia	79.4	20.6	66.3	33.7	72.3	27.7
	Adamawa	44.9	55.1	25.7	74.3	35.6	64.4
	Akwa Ibom	81.6	18.4	65.4	34.6	73.2	26.8
	Anambra	81.8	18.2	70.8	29.2	75.7	24.3
	Bauchi	24.4	75.6	10.7	89.3	17.4	82.6
	Bayelsa	77.7	22.3	46.5	53.5	60.6	39.4
	Benue	66.7	33.3	42.3	57.7	55.1	44.9
	Borno	27.8	72.2	15.8	84.2	22.0	78.0
	Cross River	70.1	29.9	56.9	43.1	63.1	36.9
	Delta	69.5	30.5	54.2	45.8	61.8	38.2
	Ebonyi	71.2	28.8	56.8	43.2	63.7	36.3
	Edo	75.5	24.5	62.0	38.0	68.8	31.2
	Ekiti	69.1	30.9	51.4	48.6	59.9	40.1
	Enugu	72.6	27.4	54.8	45.2	62.9	37.1
	Gombe	30.1	69.9	14.9	85.1	23.0	77.0
	Imo	80.0	20.0	67.5	32.5	73.4	26.6
	Jigawa	19.0	81.0	7.0	93.0	12.8	87.2
	Kaduna	49.4	50.6	29.2	70.8	39.6	60.4
	Kano	27.4	72.6	14.3	85.7	20.8	79.2
	Katsina	19.1	80.9	7.6	92.4	13.1	86.9
	Kebbi	15.0	85.0	6.7	93.3	11.1	88.9
	Kogi	61.9	38.1	41.5	58.5	51.7	48.3
	Kwara	52.5	47.5	34.2	65.8	43.1	56.9
	Lagos	86.9	13.1	76.8	23.2	82.0	18.0
	Nassarawa	59.5	40.5	31.8	68.2	45.5	54.5
	Niger	42.3	57.7	22.5	77.5	32.3	67.7
	Ogun	66.2	33.8	53.8	46.2	60.0	40.0
	Ondo	74.7	25.3	57.8	42.2	65.8	34.2
	Osun	67.0	33.0	42.8	57.2	53.8	46.2
	Oyo	62.5	37.5	46.3	53.7	54.1	45.9
	Plateau	64.0	36.0	46.0	54.0	55.3	44.7
	Rivers	84.8	15.2	73.0	27.0	78.9	21.1
	Sokoto	15.8	84.2	6.4	93.6	11.1	88.9
	Taraba	39.8	60.2	23.4	76.6	31.6	68.4
	Yobe	22.5	77.5	9.8	90.2	16.2	83.8
	Zamfara	19.1	80.9	8.9	91.1	13.9	86.1
	FCT Abuja	77.7	22.3	61.3	38.7	69.6	30.4

Source: HNLSS 2009

Table 29: Ratio of Girls to Boys in Primary Education (per 100 boys)

	Male	Female		
NIGERIA	25476	22362	0.877767	87.8
SECTOR				
Urban	6763	6278	0.928286	92.8
Rural	18713	16084	0.859509	86.0
ZONE				
North Central	5286	4497	0.851	85.1
North East	3169	2755	0.869	86.9
North West	5739	4521	0.788	78.8
South East	3519	3171	0.901	90.1
South South	3867	3696	0.956	95.6
South West	3896	3722	0.955	95.5
STATE				
Abia	594	545	0.918	91.8
Adamawa	750	639	0.852	85.2
Akwa Ibom	1178	1051	0.892	89.2
Anambra	828	690	0.833	83.3
Bauchi	597	522	0.874	87.4
Bayelsa	284	256	0.901	90.1
Benue	1267	1064	0.840	84.0
Borno	567	472	0.832	83.2
Cross River	646	637	0.986	98.6
Delta	554	567	1.023	102.3
Ebonyi	710	686	0.966	96.6
Edo	611	533	0.872	87.2
Ekiti	450	382	0.849	84.9
Enugu	592	552	0.932	93.2
Gombe	265	188	0.709	70.9
Imo	795	698	0.878	87.8
Jigawa	867	616	0.710	71.0
Kaduna	1230	1112	0.904	90.4
Kano	1356	1234	0.910	91.0
Katsina	1042	740	0.710	71.0
Kebbi	432	286	0.662	66.2
Kogi	591	601	1.017	101.7
Kwara	556	496	0.892	89.2
Lagos	544	527	0.969	96.9
Nassarawa	665	577	0.868	86.8
Niger	1032	712	0.690	69.0
Ogun	446	460	1.031	103.1
Ondo	587	521	0.888	88.8
Osun	819	850	1.038	103.8
Oyo	1050	982	0.935	93.5
Plateau	932	797	0.855	85.5
Rivers	594	652	1.098	109.8
Sokoto	614	372	0.606	60.6
Taraba	675	585	0.867	86.7
Yobe	315	349	1.108	110.8
Zamfara	198	161	0.813	81.3
FCT	243	250	1.029	102.9

Source: HNLSS 2009

Table 30: Ratio of Girls to Boys in Secondary Education (per 100 boys)

	Male	Female		
NIGERIA	17949	13617	0.75865	75.9
SECTOR				
Urban	5621	4837	0.860523	86.1
Rural	12328	8780	0.7122	71.2
ZONE				
North Central	3696	2429	0.657	65.7
North East	2110	1345	0.637	63.7
North West	2967	1563	0.527	52.7
South East	2752	2328	0.955	95.5
South South	3112	2807	0.902	90.2
South West	3312	2845	0.859	85.9
STATE				
Abia	468	408	0.872	87.2
Adamawa	479	314	0.656	65.6
Akwa Ibom	895	781	0.873	87.3
Anambra	480	535	1.115	111.5
Bauchi	351	182	0.519	51.9
Bayelsa	192	223	1.161	116.1
Benue	901	616	0.684	68.4
Borno	427	244	0.571	57.1
Cross River	554	475	0.857	85.7
Delta	418	368	0.880	88.0
Ebonyi	549	484	0.882	88.2
Edo	412	384	0.932	93.2
Ekiti	371	324	0.873	87.3
Enugu	413	435	1.053	105.3
Gombe	221	126	0.570	57.0
Imo	842	766	0.910	91.0
Jigawa	344	176	0.512	51.2
Kaduna	688	445	0.647	64.7
Kano	785	449	0.572	57.2
Katsina	389	185	0.476	47.6
Kebbi	267	99	0.371	37.1
Kogi	638	449	0.704	70.4
Kwara	415	307	0.740	74.0
Lagos	499	429	0.860	86.0
Nassarawa	458	294	0.642	64.2
Niger	537	244	0.454	45.4
Ogun	326	279	0.856	85.6
Ondo	526	411	0.781	78.1
Osun	762	684	0.898	89.8
Oyo	828	718	0.867	86.7
Plateau	557	389	0.698	69.8
Rivers	641	576	0.899	89.9
Sokoto	362	134	0.370	37.0
Taraba	452	326	0.721	72.1
Yobe	180	153	0.850	85.0
Zamfara	132	75	0.568	56.8
FCT	190	130	0.684	68.4

Source: HNLSS 2009

Table 31: Ratio of Girls to Boys in Tertiary Education (per 100 boys)

	Male	Female		
NIGERIA	3089	2322	0.751699579	75.2
SECTOR				
Urban	1513	1256	0.830138797	83.0
Rural	1576	1066	0.676395939	67.6
ZONE				
North Central	548	299	0.546	54.6
North East	248	104	0.419	41.9
North West	508	199	0.392	39.2
South East	538	599	1.113	111.3
South South	519	451	0.869	86.9
South West	728	670	0.920	92.0
STATE				
Abia	112	111	0.991	99.1
Adamawa	74	32	0.432	43.2
Akwa Ibom	75	80	1.067	106.7
Anambra	91	109	1.198	119.8
Bauchi	40	10	0.250	25.0
Bayelsa	47	17	0.362	36.2
Benue	106	45	0.425	42.5
Borno	49	18	0.367	36.7
Cross River	100	93	0.930	93.0
Delta	59	75	1.271	127.1
Ebonyi	67	73	1.090	109.0
Edo	85	73	0.859	85.9
Ekiti	89	83	0.933	93.3
Enugu	67	75	1.119	111.9
Gombe	17	7	0.412	41.2
Imo	201	231	1.149	114.9
Jigawa	40	8	0.200	20.0
Kaduna	144	68	0.472	47.2
Kano	149	79	0.530	53.0
Katsina	56	15	0.268	26.8
Kebbi	47	11	0.234	23.4
Kogi	89	65	0.730	73.0
Kwara	69	55	0.797	79.7
Lagos	142	167	1.176	117.6
Nassarawa	73	28	0.384	38.4
Niger	99	26	0.263	26.3
Ogun	72	59	0.819	81.9
Ondo	87	51	0.586	58.6
Osun	178	175	0.983	98.4
Oyo	160	135	0.844	84.4
Plateau	59	43	0.729	72.9
Rivers	153	113	0.739	73.9
Sokoto	51	16	0.314	31.4
Taraba	48	24	0.500	50.0
Yobe	20	13	0.650	65.0
Zamfara	21	2	0.095	9.5
FCT	53	37	0.698	69.8

Source: HNLSS 2009

Note: This table is computed based on the definition of tertiary education as including those in teacher training colleges, colleges of Education, Polytechnics, and Universities (first degree and higher degrees).

Table 32: Share of Women in Wage Employment in Non-Agric Sector

	TOTAL	Female	Share of Women (%)
NIGERIA	15574	6002	38.0
SECTOR			
Urban	6957	2571	37.0
Rural	8817	3431	38.9
ZONE			
North Central	2581	892	34.6
North East	2003	638	31.9
North West	2958	1136	38.4
South East	2060	954	46.3
South South	3132	1217	38.9
South West	3029	1165	38.5
STATE			
Abia	428	197	46.0
Adamawa	346	127	36.7
Akwa Ibom	584	243	41.6
Anambra	448	247	55.1
Bauchi	309	96	31.1
Bayelsa	283	117	41.3
Benue	241	83	34.4
Borno	437	146	33.4
Cross River	412	149	36.2
Delta	607	236	38.9
Ebonyi	176	61	34.7
Edo	358	159	44.4
Ekiti	481	208	43.2
Enugu	377	184	48.8
Gombe	210	68	32.4
Imo	631	265	42.0
Jigawa	354	97	27.0
Kaduna	561	213	38.0
Kano	846	334	39.5
Katsina	427	205	48.0
Kebbi	321	114	35.5
Kogi	488	182	37.3
Kwara	387	145	37.5
Lagos	811	261	32.2
Nassarawa	349	111	31.8
Niger	482	143	29.7
Ogun	346	125	36.1
Ondo	307	124	40.4
Osun	494	212	42.9
Oyo	590	235	39.8
Plateau	351	128	36.5
Rivers	898	313	34.9
Sokoto	318	108	34.0
Taraba	360	132	36.7
Yobe	342	69	20.2
Zamfara	131	65	49.6
FCT	283	100	35.3

Source: HNLSS 2009

Table 33: Proportion of children 0 - 12 months old Immunized against Measles by sector, sex, zones and state

	Yes	No	Total
SECTOR			
URBAN	56.3	43.7	100
RURAL	41.7	58.3	100
Total	47.2	52.8	100
GENDER			
Male	45.9	54.1	100
Female	48.5	51.5	100
ZONE			
North Central	55.8	44.2	100
North East	42.3	57.7	100
North West	34.3	65.7	100
South East	47.9	52.1	100
South South	58.0	42.0	100
South West	62.2	37.8	100
STATE			
ABIA	49.1	50.9	100
ADAMAWA	46.5	53.5	100
AKWA IBOM	49.2	50.8	100
ANAMBRA	52.3	47.7	100
BAUCHI	38.3	61.7	100
BAYELSA	51.4	48.6	100
BENUE	42.7	57.3	100
BORNO	31.7	68.3	100
CROSS RIVER	63.8	36.2	100
DELTA	50.3	49.7	100
EBONYI	44.1	55.9	100
EDO	68.2	31.8	100
EKITI	65.9	34.1	100
ENUGU	40.5	59.5	100
GOMBE	45.1	54.9	100
IMO	51.0	49.0	100
JIGAWA	37.3	62.7	100
KADUNA	45.5	54.5	100
KANO	33.7	66.3	100
KATSINA	33.2	66.8	100
KEBBI	21.8	78.2	100
KOGI	55.6	44.4	100
KWARA	61.9	38.1	100
LAGOS	60.2	39.8	100
NASSARAWA	50.1	49.9	100
NIGER	64.7	35.3	100
OGUN	58.2	41.8	100
ONDO	73.6	26.4	100
OSUN	60.7	39.3	100
OYO	61.7	38.3	100
PLATEAU	52.3	47.7	100
RIVERS	62.3	37.7	100
SOKOTO	33.7	66.3	100
TARABA	41.0	59.0	100
YOBE	56.2	43.8	100
ZAMFARA	16.1	83.9	100
FCT ABUJA	63.3	36.7	100

Source: HNLSS 2009

Table 34: Proportion of children 0 - 12 months old Immunized against Tuberculosis

	Yes	No	Total
SECTOR			
URBAN	54.3	45.7	100
RURAL	34.1	65.9	100
Total	41.7	58.3	100
GENDER			
Male	41.2	58.8	100
Female	42.3	57.7	100
ZONE			
North Central	47.0	53.0	100
North East	33.6	66.4	100
North West	25.3	74.7	100
South East	48.2	51.8	100
South South	55.4	44.6	100
South West	61.6	38.4	100
STATE			
ABIA	50.2	49.8	100
ADAMAWA	49.1	50.9	100
AKWA IBOM	46.0	54.0	100
ANAMBRA	53.8	46.2	100
BAUCHI	28.0	72.0	100
BAYELSA	48.8	51.2	100
BENUE	42.5	57.5	100
BORNO	28.7	71.3	100
CROSS RIVER	64.3	35.7	100
DELTA	44.5	55.5	100
EBONYI	45.6	54.4	100
EDO	72.2	27.8	100
EKITI	75.9	24.1	100
ENUGU	37.3	62.7	100
GOMBE	28.6	71.4	100
IMO	51.8	48.2	100
JIGAWA	24.5	75.5	100
KADUNA	41.7	58.3	100
KANO	22.5	77.5	100
KATSINA	24.6	75.4	100
KEBBI	13.3	86.7	100
KOGI	35.7	64.3	100
KWARA	60.2	39.8	100
LAGOS	57.4	42.6	100
NASSARAWA	29.7	70.3	100
NIGER	48.6	51.4	100
OGUN	50.9	49.1	100
ONDO	72.9	27.1	100
OSUN	64.7	35.3	100
OYO	62.6	37.4	100
PLATEAU	48.8	51.2	100
RIVERS	55.0	45.0	100
SOKOTO	24.6	75.4	100
TARABA	32.7	67.3	100
YOBE	37.3	62.7	100
ZAMFARA	13.4	86.6	100
FCT ABUJA	63.3	36.7	100

Source: HNLSS 2009

Table 35a: Proportion of Births Attended by Skilled Health Providers

State	Percentage delivered by a skilled health provider
Abia	87.1
Adamawa	14.6
Akwa Ibom	44.0
Anambra	95.2
Bauchi	15.7
Bayelsa	21.6
Benue	52.3
Borno	13.2
Cross River	44.2
Delta	61.5
Ebonyi	46.3
Edo	79.9
Ekiti	81.2
Enugu	65.5
Gombe	18.3
Imo	98.0
Jigawa	5.1
Kaduna	21.8
Kano	12.7
Katsina	4.7
Kebbi	6.2
Kogi	75.8
Kwara	53.2
Lagos	82.8
Nasarawa	33.8
Niger	17.2
Ogun	71.8
Ondo	50.5
Osun	89.2
Oyo	76.4
Plateau	30.7
Rivers	63.6
Sokoto	5.1
Taraba	25.9
Total	38.9
Yobe	9.3
Zamfara	7.7
Abuja – FCT	64.3
National	38.9

Source: NDHS 2008

Table 35b: Proportion of Births Assisted by Skilled Health Providers (HNLSS 2009)

		Doctor	Nurse	Midwife	Subtotal (Skilled Personnel)	TTBA	TBA	Self	Friend or family	Other
Sector	URBAN	21.4	33.7	16.2	71.4	2.8	9.0	3.6	11.4	1.7
	RURAL	8.4	14.9	9.4	32.7	2.6	26.3	6.7	30.8	0.9
	Total	12.9	21.4	11.8	46.1	2.7	20.3	5.6	24.1	1.2
Geo-Political Zone	North Central	8.1	30.7	10.2	49.0	1.5	11.3	4.9	32.6	0.7
	North East	3.7	8.5	6.3	18.5	1.8	24.4	4.6	50.1	0.6
	North West	9.6	6.4	5.0	21.0	3.3	32.5	11.8	30.5	0.8
	South East	23.0	37.6	26.5	87.1	2.1	3.9	0.6	5.4	0.9
	South South	12.3	27.4	20.2	59.9	2.9	28.3	1.7	6.0	1.2
	South West	26.4	40.7	16.4	83.4	3.2	4.2	1.0	5.1	3.0
State	ABIA	18.6	31.4	40.1	90.1	2.0	5.0	0.0	2.6	0.3
	ADAMAWA	4.4	10.3	8.4	23.1	1.6	26.8	8.3	39.8	0.6
	AKWA IBOM	7.5	18.0	10.9	36.5	4.6	56.9	0.9	0.5	0.6
	ANAMBRA	28.1	37.5	25.2	90.7	0.3	4.8	0.1	3.2	0.9
	BAUCHI	1.3	3.9	6.9	12.1	2.3	24.6	5.2	55.3	0.4
	BAYELSA	12.9	18.3	3.9	35.1	1.8	51.4	1.1	9.8	0.9
	BENUE	3.7	27.1	23.7	54.5	1.4	9.6	2.4	31.1	1.1
	BORNO	5.1	10.1	6.3	21.4	0.5	28.1	5.2	44.3	0.4
	CROSS RIVER	6.7	21.4	8.7	36.8	2.3	44.2	2.4	13.7	0.6
	DELTA	11.7	45.2	20.6	77.5	2.7	12.2	1.3	5.5	0.8
	EBONYI	9.4	32.7	17.7	59.8	7.5	5.0	1.3	24.1	2.3
	EDO	15.5	39.6	24.4	79.4	1.4	6.7	5.2	6.7	0.6
	EKITI	10.9	62.1	14.3	87.4	3.9	3.6	0.8	2.0	2.4
	ENUGU	21.1	52.7	14.5	88.3	3.4	3.3	1.7	3.2	0.1
	GOMBE	6.2	12.1	8.5	26.9	2.5	23.9	1.1	44.1	1.5
	IMO	31.7	26.7	35.1	93.6	0.3	0.6	0.0	3.7	1.8
	JIGAWA	8.7	2.4	5.1	16.2	2.6	57.5	4.4	18.7	0.7
	KADUNA	13.9	13.4	3.9	31.3	1.6	16.7	9.7	40.0	0.7
	KANO	8.3	7.3	7.0	22.5	5.6	25.5	11.6	34.3	0.5
	KATSINA	6.5	4.2	5.5	16.2	1.9	36.0	18.5	25.9	1.5
	KEBBI	5.7	2.6	3.5	11.7	3.0	30.8	25.8	27.9	0.8
	KOGI	7.1	38.6	13.6	59.2	3.1	10.2	1.3	25.7	0.5
	KWARA	8.1	56.9	5.3	70.3	0.4	1.5	5.1	21.7	1.0
	LAGOS	43.5	26.6	19.6	89.7	0.9	5.0	0.0	1.1	3.2
	NASSARAWA	7.8	21.5	5.4	34.8	0.8	11.8	4.5	48.0	0.0
	NIGER	4.5	19.1	5.3	29.0	1.7	24.7	9.2	34.9	0.5
	OGUN	26.1	45.2	12.4	83.7	1.5	2.4	1.0	6.3	5.2
	ONDO	11.7	38.6	19.4	69.6	11.3	10.7	0.5	2.9	5.0
	OSUN	25.7	51.0	8.9	85.6	2.7	2.3	1.1	6.8	1.5
	OYO	12.5	49.9	15.8	78.2	3.0	1.1	3.3	13.1	1.3
	PLATEAU	14.9	29.9	6.5	51.4	1.2	3.1	6.4	36.5	1.4
	RIVERS	17.5	22.4	38.3	78.2	3.3	10.9	0.1	4.7	2.7
	SOKOTO	9.7	2.5	2.9	15.1	1.0	54.5	3.8	24.7	0.8
	TARABA	3.2	10.3	4.9	18.4	0.6	7.3	1.7	71.3	0.6
	YOBE	4.1	9.2	2.3	15.6	3.3	28.6	2.9	48.8	0.8
	ZAMFARA	17.5	6.0	3.4	26.9	7.2	17.9	13.0	34.0	1.1
	FCT ABUJA	16.4	35.4	10.2	62.0	2.8	11.2	1.1	22.7	0.1

Source: HNLSS 2009

Table 36: Proportion of children under 5 sleeping under insecticide-treated bed nets

		No	ITN	LLITN	Ordinary net	Total
Sector	URBAN	87.7	3.3	3.7	5.3	100
	RURAL	86.0	2.6	4.1	7.4	100
	Total	86.6	2.8	4.0	6.7	100
Sex	Male	85.5	2.7	4.1	7.8	100
	Female	87.7	2.9	3.8	5.5	100
Geo-Political Zone	North Central	89.8	2.5	2.8	4.8	100
	North East	82.5	2.0	3.8	11.7	100
	North West	85.7	2.3	3.4	8.6	100
	South East	89.3	2.5	5.5	2.7	100
	South South	81.6	5.0	8.3	5.1	100
	South West	91.3	3.3	2.1	3.2	100
State	ABIA	91.6	3.8	2.7	2.0	100
	ADAMAWA	88.9	1.5	1.2	8.4	100
	AKWA IBOM	80.6	6.7	10.0	2.7	100
	ANAMBRA	85.8	1.9	7.0	5.3	100
	BAUCHI	86.6	3.2	6.2	4.0	100
	BAYELSA	80.8	0.3	5.1	13.8	100
	BENUE	91.6	2.4	1.2	4.8	100
	BORNO	68.1	1.7	3.7	26.6	100
	CROSS RIVER	51.9	17.9	27.6	2.5	100
	DELTA	85.5	2.7	3.4	8.4	100
	EBONYI	92.0	2.2	3.1	2.7	100
	EDO	97.4	0.0	1.9	0.6	100
	EKITI	92.4	1.5	5.8	0.4	100
	ENUGU	94.3	2.3	2.6	0.8	100
	GOMBE	81.9	2.2	6.6	9.2	100
	IMO	83.9	2.3	12.6	1.3	100
	JIGAWA	71.9	4.9	8.0	15.2	100
	KADUNA	91.6	1.8	4.0	2.6	100
	KANO	84.3	2.4	2.9	10.5	100
	KATSINA	95.3	1.5	0.8	2.4	100
	KEBBI	84.5	1.3	0.8	13.4	100
	KOGI	82.5	2.6	1.1	13.9	100
	KWARA	92.9	1.2	4.3	1.6	100
	LAGOS	88.7	5.4	3.0	2.9	100
	NASSARAWA	87.0	3.4	4.9	4.7	100
	NIGER	93.0	1.7	0.8	4.5	100
	OGUN	91.8	2.0	3.2	3.0	100
	ONDO	87.1	3.0	0.3	9.6	100
	OSUN	94.2	3.1	0.9	1.8	100
	OYO	96.1	1.6	0.4	1.9	100
	PLATEAU	89.7	3.3	3.9	3.1	100
	RIVERS	84.7	3.5	5.4	6.4	100
	SOKOTO	76.4	1.7	5.4	16.5	100
	TARABA	92.7	0.9	1.7	4.7	100
	YOBE	82.5	1.5	1.7	14.2	100
	ZAMFARA	92.6	2.2	0.9	4.2	100
	FCT ABUJA	87.1	4.3	7.3	1.3	100

Source: HNLSS 2009

Table 37: Proportion of pregnant women sleeping under insecticide-treated bed nets

		Did person sleep under bed net previous night?				
		No	ITN	LLITN	Ordinary net	Total
Sector	URBAN	91.4	1.4	3.0	4.2	100
	RURAL	85.6	2.2	4.2	8.1	100
	Total	87.3	2.0	3.8	6.9	100
Geo-Political Zone	North Central	88.3	1.9	3.1	6.7	100
	North East	83.2	2.0	3.2	11.7	100
	North West	86.6	2.3	4.0	7.1	100
	South East	93.1	1.1	5.5	0.3	100
	South South	83.4	2.6	6.7	7.4	100
	South West	93.8	1.2	1.9	3.1	100
State	ABIA	86.6	2.5	10.9	0.0	100
	ADAMAWA	89.5	2.1	1.1	7.3	100
	AKWA IBOM	92.7	0.0	5.8	1.6	100
	ANAMBRA	96.4	0.9	2.1	0.6	100
	BAUCHI	89.3	2.7	3.3	4.7	100
	BAYELSA	80.6	2.0	3.6	13.7	100
	BENUE	94.1	1.6	1.8	2.5	100
	BORNO	64.3	0.8	2.4	32.5	100
	CROSS RIVER	56.3	6.6	37.1	0.0	100
	DELTA	76.3	2.9	0.0	20.8	100
	EBONYI	95.3	2.0	1.6	1.2	100
	EDO	97.7	0.0	2.3	0.0	100
	EKITI	93.3	0.0	5.7	1.0	100
	ENUGU	98.3	0.0	1.7	0.0	100
	GOMBE	82.6	3.9	11.5	2.0	100
	IMO	92.3	0.0	7.7	0.0	100
	JIGAWA	68.3	5.9	10.7	15.1	100
	KADUNA	90.5	3.0	4.9	1.5	100
	KANO	88.4	2.1	5.8	3.7	100
	KATSINA	95.6	0.4	0.8	3.2	100
	KEBBI	84.0	1.8	0.3	14.0	100
	KOGI	60.5	0.9	0.0	38.6	100
	KWARA	92.2	0.0	6.7	1.0	100
	LAGOS	96.5	0.9	2.3	0.3	100
	NASSARAWA	75.7	0.0	19.4	4.9	100
	NIGER	91.3	1.9	1.0	5.9	100
	OGUN	83.9	6.5	5.5	4.1	100
	ONDO	85.3	0.0	0.0	14.7	100
	OSUN	97.9	1.5	0.0	0.6	100
	OYO	95.1	0.9	0.2	3.8	100
	PLATEAU	90.5	5.5	2.4	1.5	100
	RIVERS	87.3	4.7	4.7	3.3	100
	SOKOTO	82.1	0.9	4.2	12.8	100
	TARABA	86.0	1.9	3.4	8.6	100
	YOBE	84.4	1.0	1.8	12.7	100
	ZAMFARA	84.4	4.3	0.0	11.4	100
	FCT ABUJA	90.6	7.7	1.6	0.0	100

Source: HNLSS 2009

Table 38: Percentage of children under 5 with fever treated with appropriate anti malarial drugs

		Anti-malarial drugs: SP/Chloroquine/Amodiaquine/Quinine/ACT	Other/No Drugs	Total
Sector	URBAN	40.7	59.3	100
	RURAL	41.7	58.3	100
	Total	41.4	58.6	100
Sex	Male	41.2	58.8	100
	Female	41.7	58.3	100
Geo-Political Zone	North Central	32.7	67.3	100
	North East	43.8	56.2	100
	North West	53.2	46.8	100
	South East	41.7	58.3	100
	South South	33.3	66.7	100
	South West	34.8	65.2	100
State	ABIA	27.7	72.3	100
	ADAMAWA	37.3	62.7	100
	AKWA IBOM	44.3	55.7	100
	ANAMBRA	44.4	55.6	100
	BAUCHI	16.8	83.2	100
	BAYELSA	12.1	87.9	100
	BENUE	26.4	73.6	100
	BORNO	66.8	33.2	100
	CROSS RIVER	38.5	61.5	100
	DELTA	50.1	49.9	100
	EBONYI	86.3	13.7	100
	EDO	12.0	88.0	100
	EKITI	29.8	70.2	100
	ENUGU	54.9	45.1	100
	GOMBE	57.6	42.4	100
	IMO	21.0	79.0	100
	JIGAWA	49.5	50.5	100
	KADUNA	38.9	61.1	100
	KANO	47.3	52.7	100
	KATSINA	44.1	55.9	100
	KEBBI	57.8	42.2	100
	KOGI	65.1	34.9	100
	KWARA	17.4	82.6	100
	LAGOS	68.0	32.0	100
	NASSARAWA	37.3	62.7	100
	NIGER	34.7	65.3	100
	OGUN			
	ONDO	40.8	59.2	100
	OSUN	16.6	83.4	100
	OYO	20.5	79.5	100
	PLATEAU	59.1	40.9	100
	RIVERS	51.3	48.7	100
	SOKOTO	81.9	18.1	100
	TARABA	43.6	56.4	100
	YOBE	58.1	41.9	100
	ZAMFARA	80.5	19.5	100
	FCT ABUJA			100

Source: HNLSS 2009

Table 39: Labor Force Participation Rate (12 months)

	Gender		
		Male	Female
Sector	URBAN	88.9	90.4
	RURAL	94.6	95.9
	Total	91.7	93.1
Geo-Political Zone	North Central	91.7	92.9
	North East	94.4	96.0
	North West	94.7	96.0
	South East	91.7	92.7
	South South	89.2	89.7
	South West	88.2	91.0
State	ABIA	93.0	94.0
	ADAMAWA	91.2	94.0
	AKWA IBOM	94.5	95.5
	ANAMBRA	88.8	88.2
	BAUCHI	92.0	94.0
	BAYELSA	85.1	84.7
	BENUE	97.8	98.7
	BORNO	95.4	96.3
	CROSS RIVER	89.7	89.1
	DELTA	90.8	91.5
	EBONYI	91.3	97.2
	EDO	88.2	90.1
	EKITI	88.3	90.5
	ENUGU	91.6	90.0
	GOMBE	97.4	98.4
	IMO	93.7	94.1
	JIGAWA	96.7	96.6
	KADUNA	91.2	93.0
	KANO	94.1	94.9
	KATSINA	96.2	98.7
	KEBBI	94.9	95.8
	KOGI	89.4	91.0
	KWARA	83.4	89.2
	LAGOS	85.6	91.2
	NASSARAWA	93.7	94.9
	NIGER	93.8	95.1
	OGUN	92.3	94.4
	ONDO	86.2	90.7
	OSUN	88.9	89.5
	OYO	88.1	89.8
	PLATEAU	92.2	92.4
	RIVERS	86.9	87.4
	SOKOTO	92.2	96.4
	TARABA	94.1	96.5
	YOBE	96.3	96.6
	ZAMFARA	97.3	96.4
	FCT ABUJA	91.7	88.9

Source: HNLSS 2009

Table 40: Youth Labor Force Participation Rate (12 months)

		Sex		
		Male	Female	Total
Sector	URBAN	71.2	74.2	72.7
	RURAL	85.0	87.0	86.0
	Total	78.1	80.6	79.3
Geo-Political Zone	North Central	76.0	78.8	77.4
	North East	86.0	89.9	88.0
	North West	86.3	89.4	87.8
	South East	80.6	81.0	80.8
	South South	71.4	73.5	72.5
	South West	67.7	70.0	68.8
State	ABIA	82.7	84.8	83.8
	ADAMAWA	78.4	86.8	82.6
	AKWA IBOM	88.9	88.3	88.6
	ANAMBRA	69.3	67.9	68.6
	BAUCHI	85.0	84.7	84.8
	BAYELSA	62.8	62.9	62.8
	BENUE	95.4	96.5	95.9
	BORNO	86.3	90.6	88.4
	CROSS RIVER	71.6	75.2	73.4
	DELTA	73.7	74.5	74.1
	EBONYI	87.1	93.1	90.1
	EDO	66.5	68.9	67.7
	EKITI	63.1	62.2	62.7
	ENUGU	78.0	74.9	76.5
	GOMBE	93.7	96.6	95.1
	IMO	85.7	84.2	85.0
	JIGAWA	92.0	91.1	91.5
	KADUNA	78.1	82.3	80.2
	KANO	83.9	87.3	85.6
	KATSINA	88.5	96.5	92.5
	KEBBI	84.8	86.0	85.4
	KOGI	70.8	73.7	72.2
	KWARA	52.0	60.5	56.2
	LAGOS	63.4	74.3	68.8
	NASSARAWA	82.6	84.1	83.3
	NIGER	80.5	84.8	82.7
	OGUN	75.5	80.2	77.8
	ONDO	62.0	68.2	65.1
	OSUN	75.6	71.4	73.5
	OYO	66.2	63.7	65.0
	PLATEAU	80.6	80.4	80.5
	RIVERS	65.3	71.1	68.2
	SOKOTO	83.8	89.7	86.7
	TARABA	85.1	89.9	87.5
	YOBE	87.5	90.9	89.2
	ZAMFARA	92.6	92.8	92.7
	FCT ABUJA	69.9	71.4	70.7
	Totals	78.1	80.6	79.3

Source: HNLSS 2009

Table 41: Unemployment Rates (12 months) by Sector, Zone, State and Gender

		Sex		
		Male	Female	Total
Sector	URBAN	13.2	22.9	18.1
	RURAL	9.1	15.9	12.5
	Total	11.2	19.4	15.3
Geo-Political Zone	North Central	8.8	14.1	11.4
	North East	9.4	28.2	18.8
	North West	10.5	32.4	21.5
	South East	8.9	9.0	8.9
	South South	17.6	18.4	18.0
	South West	12.0	11.1	11.5
State	ABIA	7.6	7.1	7.3
	ADAMAWA	9.8	36.0	22.9
	AKWA IBOM	13.6	10.9	12.2
	ANAMBRA	11.9	12.8	12.3
	BAUCHI	16.8	42.2	29.5
	BAYELSA	18.4	18.4	18.4
	BENUE	2.1	3.0	2.6
	BORNO	10.5	20.3	15.4
	CROSS RIVER	11.1	10.4	10.7
	DELTA	21.0	23.4	22.2
	EBONYI	1.8	2.1	1.9
	EDO	22.5	21.7	22.1
	EKITI	9.1	9.3	9.2
	ENUGU	9.1	12.4	10.7
	GOMBE	8.2	23.6	15.9
	IMO	14.0	10.7	12.3
	JIGAWA	12.5	28.4	20.4
	KADUNA	8.4	24.6	16.5
	KANO	8.6	31.8	20.2
	KATSINA	9.0	30.6	19.8
	KEBBI	14.2	39.8	27.0
	KOGI	20.4	20.6	20.5
	KWARA	13.7	12.7	13.2
	LAGOS	25.0	18.6	21.8
	NASSARAWA	4.5	19.0	11.7
	NIGER	7.4	17.1	12.2
	OGUN	7.1	8.3	7.7
	ONDO	11.1	10.4	10.8
	OSUN	10.3	9.9	10.1
	OYO	9.3	10.1	9.7
	PLATEAU	5.7	14.0	9.9
	RIVERS	19.2	25.9	22.5
	SOKOTO	11.3	32.7	22.0
	TARABA	4.7	9.2	7.0
	YOBE	6.7	38.1	22.4
	ZAMFARA	9.8	39.0	24.4
	FCT ABUJA	7.6	12.4	10.0
	Total	11.2	19.4	15.3

Source: HNLSS 2009

Table 42: Youth Unemployment Rate (12 months) by Sector, Zone, State and Gender

		Sex		
		Male	Female	Total
Sector	URBAN	26.0	32.2	29.1
	RURAL	15.9	21.6	18.8
	Total	20.9	26.9	23.9
Geo-Political Zone	North Central	16.1	20.7	18.4
	North East	16.3	29.5	22.9
	North West	19.3	37.2	28.2
	South East	13.9	14.5	14.2
	South South	33.1	30.4	31.8
	South West	26.9	26.4	26.6
State	ABIA	11.1	10.9	11.0
	ADAMAWA	14.1	40.9	27.5
	AKWA IBOM	21.7	21.6	21.7
	ANAMBRA	22.9	25.4	24.1
	BAUCHI	31.0	46.6	38.8
	BAYELSA	42.9	40.5	41.7
	BENUE	4.2	2.7	3.5
	BORNO	17.2	21.2	19.2
	CROSS RIVER	21.6	13.6	17.6
	DELTA	35.9	30.7	33.3
	EBONYI	2.5	3.5	3.0
	EDO	37.7	35.1	36.4
	EKITI	19.6	18.4	19.0
	ENUGU	17.8	24.2	21.0
	GOMBE	14.6	26.9	20.8
	IMO	15.2	8.4	11.8
	JIGAWA	19.7	36.2	28.0
	KADUNA	14.1	32.5	23.3
	KANO	21.0	34.9	28.0
	KATSINA	13.1	34.7	23.9
	KEBBI	28.6	45.5	37.0
	KOGI	25.6	27.3	26.5
	KWARA	36.5	28.0	32.3
	LAGOS	53.9	44.8	49.4
	NASSARAWA	8.4	22.1	15.3
	NIGER	14.7	28.3	21.5
	OGUN	19.2	23.0	21.1
	ONDO	27.9	26.7	27.3
	OSUN	20.4	22.7	21.5
	OYO	20.2	22.9	21.5
	PLATEAU	11.0	15.7	13.3
	RIVERS	38.9	41.0	40.0
	SOKOTO	17.7	33.8	25.8
	TARABA	10.3	5.4	7.9
	YOBE	10.4	35.6	23.0
	ZAMFARA	20.9	42.5	31.7
	FCT ABUJA	12.6	20.7	16.7
	Total	20.9	26.9	23.9

Source: HNLSS 2009

Table 43: Proportion of Population with Access to Improved Source of Drinking Water (Percent)

State of Residence	Improved Source
Abia	83.6
Adamawa	22.1
Akwa Ibom	65.0
Anambra	68.4
Bauchi	34.3
Bayelsa	27.2
Benue	44.6
Borno	40.4
Cross River	24.5
Delta	72.7
Ebonyi	54.5
Edo	59.3
Ekiti	61.3
Enugu	63.8
Gombe	23.6
Imo	67.9
Jigawa	78.7
Kaduna	48.5
Kano	53.4
Katsina	37.4
Kebbi	73.4
Kogi	43.0
Kwara	64.6
Lagos	67.7
Nasarawa	47.1
Niger	48.8
Ogun	66.8
Ondo	63.7
Osun	78.0
Oyo	72.4
Plateau	32.8
Rivers	69.0
Sokoto	26.0
Taraba	19.9
Yobe	50.3
Zamfara	29.5
Abuja - FCT	66.3
Total	**54.2**

Source: NDHS 2008

Table 44: Proportion of Population with Access to Improved Sanitation

State of Residence	Improved, not shared facility
Abia	45.4
Adamawa	25.3
Akwa Ibom	45.3
Anambra	47.6
Bauchi	22.5
Bayelsa	6.4
Benue	16.3
Borno	30.1
Cross River	12.2
Delta	25.0
Ebonyi	15.4
Edo	34.5
Ekiti	18.0
Enugu	20.5
Gombe	48.1
Imo	55.8
Jigawa	22.2
Kaduna	33.4
Kano	67.9
Katsina	52.6
Kebbi	41.7
Kogi	19.7
Kwara	10.4
Lagos	25.3
Nasarawa	42.1
Niger	26.1
Ogun	14.6
Ondo	17.5
Osun	16.0
Oyo	8.8
Plateau	17.0
Rivers	22.7
Sokoto	60.7
Taraba	9.6
Yobe	31.4
Zamfara	31.4
Abuja - FCT	40.5
Total	**31.2**

Source: NDHS 2008

Table 45: Nigeria's Population by State/Geopolitical Zone

State/Geopolitical Zone	Population
South West	**27,722,432**
Ekiti	2,398,957
Lagos	9,113,605
Osun	3,416,959
Ondo	3,460,877
Ogun	3,751,140
Oyo	5,580,894
South East	**16,395,555**
Abia	2,845,380
Anambra	4,177,828
Ebonyi	2,176,947
Enugu	3,267,837
Imo	3,927,563
South-South	**21,044,081**
Akwa-Ibom	3,902,051
Bayelsa	1,704,515
Cross-River	2,892,988
Delta	4,112,445
Edo	3,233,366
Rivers	5,198,716
North Central	**20,369,956**
Benue	4,253,641
FCT	1,406,239
Kogi	3,314,043
Kwara	2,365,353
Nasarawa	1,869,377
Niger	3,954,772
Plateau	3,206,531
North East	**18,984,299**
Adamawa	3,178,950
Bauchi	4,653,066
Borno	4,171,104
Gombe	2,365,040
Taraba	2,294,800
Yobe	2,321,339
North West	**35,915,467**
Kaduna	6,113,503
Katsina	5,801,584
Kano	9,401,288
Kebbi	3,256,541
Sokoto	3,702,676
Jigawa	4,361,002
Zamfara	3,278,873
Total	**140,431,790**

Source: National Population Commission (Census 2006)

APPENDIX II: Gender-Specific Analysis of Education and Employment Outcomes Using the 2009 NLSS Data

I. Exploration of gender differences in Employment

The 2009/2010 NLSS was used further investigate gender differences in employment outcomes. The analysis aimed to establish whether gender differences can be detected even after controlling for numerous other characteristics that affect employment outcomes, such as age, education, household size, and parental characteristics. The main analytical methodology used was multiple regression analysis, in which more than one independent variable can be used to predict employment outcomes. While the simple com parisons of men's and women's employment outcomes that were presented earlier can be revealing and informative, the formulation of effective gender-sensitive labor market policies requires that we understand whether gender differences persist even if we control for other variables. For example, if gender differences do not exist after we control for education, then it would suggest that education is an important sector in which to intervene on behalf of women. Another advantage of such an analysis is that it reveals the association between employment and numerous other important variables.

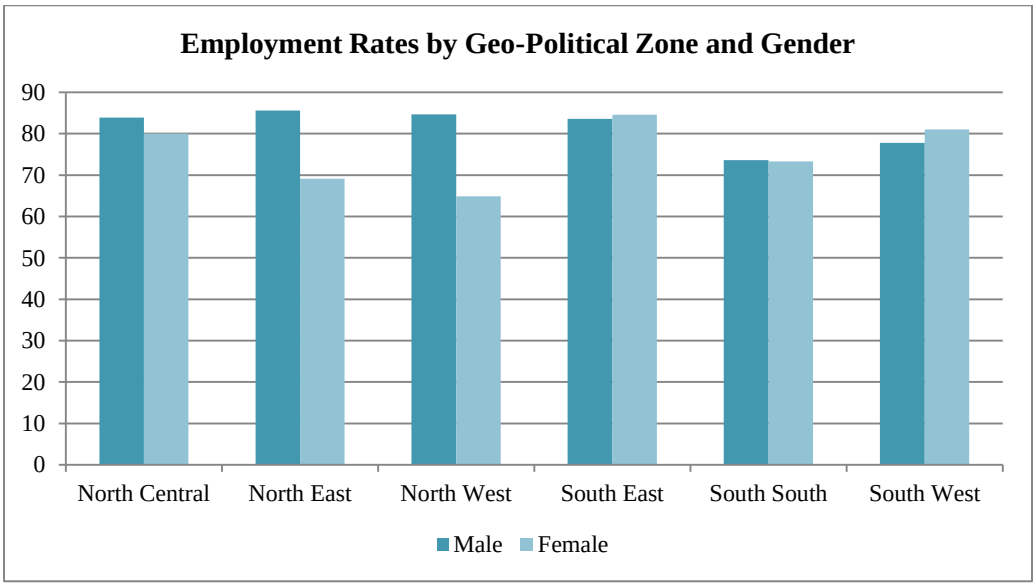
The multiple regression analysis was conducted separately for rural and urban regions, as well as for children (ages 5-17) and adults (ages 18-65). The rationale for separately examining these groups was that the relation between gender and employment may well differ substantially between these groups, as would the relation between employment and various other characteristics (such as education). The results for each of these four groups are discussed in turn. Four different binary employment outcomes were used, and these indicated: (1) employment in the past 12 months, self-employment in the past 12 months, wage or paid work in the past 12 months, and farm work in the past 12 months.

Gender differences in employment – urban adults (Table A)

Among the nearly 45,000 urban adults in the NLSS sample, without controlling for any other characteristics, the employment rates in the past 12 months were 5.6 percentage points lower for women compared to men. These differences are consistent with those reported in Table 4.3b. **Gender differences in employment persist even when controlling for a number of other characteristics, including age, education, household size, mother's and father's occupation, and region of residence (north vs. south).** In column 2 of Table A, the size of the gender difference in employment rates is 3.8 percent. A striking finding, separate from the gender difference, is that adults in urban areas with university education are much less likely to have been employed in the past 12 months. Their employment rates are more than 11.3 percentage points lower than those of adults without university education, even when controlling for other characteristics. This could because the available jobs for university graduates pay wages that are below the reservation wages of the graduates. Further analysis of underlying reasons for this finding as well as the development of labor market policies to address this issue should be priorities. While the returns to having completed primary education are large, positive and significant, the returns to having completed secondary education are also negative and significant. The relationship between age and employment rates are nonlinear, as is common in many countries – employment rates increase with age and eventually begin to decline.

Tables 4.3b: Employment Rate (12 months) by Sector			
Sector	Male	Female	Total
Urban	77.2	69.6	73.4
Rural	86.1	80.5	83.3
TOTAL	81.6	75.1	78.4

Gender differences in employment turned out to be very different in the north and south of Nigeria – in the north, gender differences tended to be larger than in the south. In column 3 of Table A, separate controls are introduced for men and women residing in the north. Controls are introduced for each individual state in the form of state fixed effects. The employment rates for women are 11.6 percentage points lower than those of men in the north – and compared to women in the south. Thus, the need to address gender disparities in employment are perhaps greatest in the north. In the south, gender differences in overall employment rates are not significant. This is consistent with the results reported in Table 4.3b, as the graph below shows.



When each type of work (self-employment, wage, and farm) is examined separately, there are some noteworthy gender differences. First, **women had significantly higher self-employment rates than men** – in the south, their rates of participation in self-employment activities were about 5.2 percentage points higher than that of men, whereas in the north their rates of self-employment were 2 percentage points higher than that of men (although overall rates of self-employment are lower in the north)**. When it comes to wage employment and agricultural work, however, women have significantly lower rates of employment than men** – this is true in both the north and south.

Gender differences in employment – rural adults (Table B)

While overall employment rates of adults are higher in rural areas relative to urban areas, the gender gap in employment rates in rural areas is larger. Without controlling for any other characteristics, the employment rates in the past 12 months were 8.8 percentage points lower for women compared to men. The size of the gender difference is only slightly reduced (to 6.4 percent) when controlling for various other individual and household characteristics. When

comparing the gender differences in the north and south (column 3 of Table B), the findings are similar to those in urban areas. While there is no evidence of a gender gap in employment rates in the south, women in the north have employment rates that are 13.1 percentage points lower than those of men.

Other individual and household characteristics are also important for understanding employment patterns. Specifically**, completion of university education was negatively and significantly associated with employment rates in the past 12 months**. Similarly, completion of secondary education was not significantly associated with employment rates – an in the case of wage and agricultural work, secondary education was negatively associated with participation in these activities.

When examining the different types of employment separately, gender differences in the north were found to be largest for agricultural work. Compared to men in the north, women were 42 percentage points less likely to have done agricultural work. However, compared to men, they were actually considerably more likely to have done self-employed work in the past 12 months. And while the differences between men and women in the north were small for wage employment, women had slightly higher wage employment rates (by 2.3 percentage points). In the south of Nigeria, women were significantly less likely than men to have done wage and agricultural work in the past 12 months, but more likely to have done self-employed work (in all cases, however, the actual size of the differences were relatively small – between 1 and 4 percentage points).

Gender differences in employment – urban children (Table C)
Although children's labor force participation rates tended to significantly lower than those of adults, in both rural and urban areas, it is important to examine whether there were sizable differences between the employment rates of boys and girls, as these may have influenced many other outcomes ranging from education to health. **Without controlling for other individual and household characteristics, the employment rates for girls were 2.9 percentage points lower than for boys, a difference that was statistically significant**. This difference persisted even after controlling for other individual and household characteristics. Also, if a child's father and mother had farming as their main occupation, the child was significantly more likely to have worked in the past 12 months. **Finally, children's employment rates were significantly higher in the north than the south (by about 30 percentage points) but gender difference in children's employment were not larger in the north**.

Gender differences in employment – rural children (Table D)
Employment rates of children in rural areas were significantly higher than in urban areas. 60 percent of boys between the ages of 5-17 years had been employed in the past 12 months, either in an enterprise/business, on the farm, or for a wage. **The employment rates for girls were 6.1 percentage points lower, a difference that was statistically significant.** This however cannot be taken as evidence that girls did less work than boys, as the employment indicators reported here do not include work on non-market activities, such as household chores and other domestic activities. The differences in employment between boys and girls persisted even after controlling for individual and household characteristics.

However, gender differences in employment turned out be substantially different in the north and south. In the south of Nigeria, there were no significant differences in overall employment rates between boys and girls (column 3 or Table D). However, in the north, girls were about 7 percentage points less likely to have worked in the past 12 months. This difference could have been made up higher non-market (within household) employment of girls and such a possibility should be considered when interpreting the results presented here.

Table A – Employment outcomes of urban adults

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	recentempl	recentempl	recentempl	selfempl	paidwork	agwork
female	-0.0562***	-0.0384***	0.00694	0.0519***	-0.0439***	-0.0442***
	(0.00399)	(0.00373)	(0.00440)	(0.00583)	(0.00460)	(0.00461)
primaryeduc		0.128***	0.122***	0.0539***	0.0701***	-0.0730***
		(0.00522)	(0.00524)	(0.00692)	(0.00459)	(0.00624)
secondaryeduc		-0.0305***	-0.0239***	-0.0724***	0.127***	-0.0696***
		(0.00454)	(0.00453)	(0.00589)	(0.00437)	(0.00484)
univeduc		-0.113***	-0.108***	-0.208***	0.162***	-0.0773***
		(0.00693)	(0.00695)	(0.00893)	(0.00828)	(0.00583)
age		0.0511***	0.0512***	0.0340***	0.0286***	0.0118***
		(0.000902)	(0.000889)	(0.00114)	(0.000772)	(0.000930)
agesq		-0.000513***	-0.000516***	-0.000402***	-0.000302***	-7.93e-05***
		(1.11e-05)	(1.09e-05)	(1.44e-05)	(9.92e-06)	(1.20e-05)
HHoldSize		-0.0222***	-0.0218***	-0.00969***	-0.00919***	0.000756
		(0.000756)	(0.000759)	(0.000978)	(0.000719)	(0.000795)
paternalfarm		0.103*	0.0911*	0.121**	0.00480	0.000845
		(0.0531)	(0.0511)	(0.0585)	(0.0136)	(0.0463)
maternalfarm		0.150**	0.138**	-0.0710	0.0409	0.172**
		(0.0679)	(0.0663)	(0.0766)	(0.0255)	(0.0705)
north		0.0107***	0.154***	-0.260***	0.185***	0.229***
		(0.00410)	(0.0219)	(0.0314)	(0.0260)	(0.0267)
northernfemale			-0.116***	0.0203**	-0.0330***	-0.209***
			(0.00761)	(0.00974)	(0.00712)	(0.00801)
Constant	0.793***	-0.251***	-0.206***	0.160***	-0.487***	-0.00408
	(0.00274)	(0.0182)	(0.0210)	(0.0263)	(0.0198)	(0.0213)
Observations	44,964	44,964	44,964	42,092	42,168	42,393
R-squared	0.004	0.179	0.205	0.078	0.143	0.173
Robust standard errors in parentheses						
*** p<0.01, ** p<0.05, * p<0.1						

Table B – Employment outcomes of rural adults

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	recentempl	recentempl	recentempl	selfempl	paidwork	agwork
female	-0.0879***	-0.0644***	0.0146***	0.0339***	-0.0278***	-0.0212***
	(0.00203)	(0.00206)	(0.00316)	(0.00488)	(0.00309)	(0.00441)
primaryeduc		0.0963***	0.0746***	0.0562***	0.0407***	-0.0513***
		(0.00254)	(0.00260)	(0.00392)	(0.00196)	(0.00347)
secondaryeduc		-0.0122***	-0.00958***	-0.00147	0.132***	-0.104***
		(0.00281)	(0.00279)	(0.00453)	(0.00311)	(0.00421)
univeduc		-0.116***	-0.104***	-0.122***	0.186***	-0.239***
		(0.00783)	(0.00778)	(0.0102)	(0.00978)	(0.00940)
age		0.0193***	0.0195***	-0.00306***	0.0102***	0.0322***
		(0.000488)	(0.000478)	(0.000686)	(0.000356)	(0.000611)
agesq		-0.000181***	-0.000187***	-1.26e-05	-0.000103***	0.000314***
		(5.96e-06)	(5.86e-06)	(8.62e-06)	(4.53e-06)	(7.58e-06)
HHoldSize		-0.0156***	-0.0164***	0.00475***	-0.00310***	-0.0141***
		(0.000408)	(0.000404)	(0.000580)	(0.000320)	(0.000518)
paternalfarm		-0.0393**	-0.0184	-0.0282	0.0486***	-0.0193
		(0.0198)	(0.0195)	(0.0231)	(0.00985)	(0.0216)
maternalfarm		0.145***	0.0999***	0.0973***	-0.00885	-0.0222
		(0.0245)	(0.0240)	(0.0303)	(0.0123)	(0.0295)
north		0.0206***	0.127***	-0.268***	-0.00449	0.126***
		(0.00233)	(0.0128)	(0.0215)	(0.0133)	(0.0215)
northernfemale			-0.127***	0.202***	0.0227***	-0.422***
			(0.00399)	(0.00598)	(0.00354)	(0.00537)
Constant	0.888***	0.485***	0.489***	0.604***	-0.139***	0.137***
	(0.00129)	(0.00984)	(0.0112)	(0.0164)	(0.00959)	(0.0147)
Observations	124,976	124,976	124,976	116,361	116,443	117,186
R-squared	0.015	0.072	0.113	0.075	0.098	0.249
Robust standard errors in parentheses						
*** p<0.01, ** p<0.05, * p<0.1						

Table C – Employment outcomes of urban children

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	recentempl	recentempl	recentempl	selfempl	paidwork	agwork
female	-0.0288***	-0.0250***	-0.00825	0.000297	0.000455	-0.0141***
	(0.00585)	(0.00588)	(0.00756)	(0.00834)	(0.00197)	(0.00426)
primaryeduc		0.0165*	0.0188**	0.00275	0.00500*	-0.00927
		(0.00884)	(0.00864)	(0.00942)	(0.00278)	(0.00586)
secondaryeduc		0.0163	0.0193	0.0144	0.0389***	0.0143
		(0.0226)	(0.0222)	(0.0232)	(0.0114)	(0.0146)
age		0.0245***	0.0235***	0.0161***	-0.000128	0.00880***
		(0.00546)	(0.00533)	(0.00595)	(0.00158)	(0.00340)
agesq		-0.000440*	-0.000423*	-0.000356	2.93e-05	-9.81e-05
		(0.000255)	(0.000249)	(0.000275)	(7.79e-05)	(0.000162)
HHoldSize		-0.00375**	-0.00312**	-0.00410**	-0.000293	-0.00112
		(0.00150)	(0.00150)	(0.00165)	(0.000439)	(0.000960)
paternalfarm		0.119***	0.117***	0.0835***	0.00211	0.0595***
		(0.00797)	(0.00797)	(0.00866)	(0.00231)	(0.00596)
maternalfarm		0.182***	0.160***	0.102***	-7.62e-05	0.0779***
		(0.00998)	(0.0103)	(0.0110)	(0.00308)	(0.00836)
paternaleduc		-0.00434	-0.00670	-0.00550	-0.00261	-0.00770
		(0.00889)	(0.00883)	(0.00955)	(0.00239)	(0.00581)
maternaleduc		-0.0274***	-0.0211**	-0.0220**	0.00734***	-0.00349
		(0.00855)	(0.00849)	(0.00918)	(0.00244)	(0.00539)
north		0.106***	0.295***	-0.0157	0.0771***	0.00117
		(0.00698)	(0.0369)	(0.0429)	(0.0192)	(0.0239)
northernfemale			-0.0341***	-0.00849	-0.00573*	-0.0243***
			(0.0116)	(0.0128)	(0.00333)	(0.00740)
Constant	0.368***	0.0922***	0.293***	0.420***	0.00182	-0.00373
	(0.00412)	(0.0294)	(0.0381)	(0.0415)	(0.00980)	(0.0224)
Observations	26,670	24,313	24,313	20,684	20,904	21,102
R-squared	0.001	0.078	0.127	0.088	0.015	0.075
Robust standard errors in parentheses						
*** p<0.01, ** p<0.05, * p<0.1						

Table D – Employment outcomes of rural children

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	recentempl	recentempl	recentempl	selfempl	paidwork	agwork
female	-0.0614***	-0.0505***	0.000381	-0.000515	-0.00578***	0.00482
	(0.00336)	(0.00345)	(0.00612)	(0.00691)	(0.00222)	(0.00573)
primaryeduc		0.0200***	0.0144***	0.00503	0.000326	-0.0271***
		(0.00513)	(0.00500)	(0.00574)	(0.00170)	(0.00506)
secondaryeduc		-0.00227	-0.00415	0.0197	0.0215***	-0.0115
		(0.0170)	(0.0165)	(0.0189)	(0.00803)	(0.0163)
age		0.0486***	0.0491***	0.0354***	-0.000252	0.00981***
		(0.00316)	(0.00310)	(0.00353)	(0.00101)	(0.00294)
agesq		-0.00116***	-0.00120***	-0.00118***	5.90e-05	0.000240*
		(0.000146)	(0.000143)	(0.000164)	(4.84e-05)	(0.000140)
HHoldSize		-0.00456***	-0.00678***	-0.00599***	-0.00111***	-0.00306***
		(0.000836)	(0.000831)	(0.000936)	(0.000263)	(0.000779)
paternalfarm		0.0412***	0.0489***	0.0665***	0.00127	-0.0105***
		(0.00439)	(0.00435)	(0.00481)	(0.00129)	(0.00400)
maternalfarm		0.207***	0.135***	0.0839***	-0.00138	0.0612***
		(0.00369)	(0.00432)	(0.00491)	(0.00138)	(0.00412)
paternaleduc		-0.0314***	-0.0292***	0.00405	-0.00421***	-0.0450***
		(0.00463)	(0.00462)	(0.00518)	(0.00144)	(0.00417)
maternaleduc		-0.0239***	-0.0325***	-0.00576	0.000793	-0.0257***
		(0.00498)	(0.00495)	(0.00553)	(0.00154)	(0.00441)
north		0.0990***	0.0596**	-0.235***	-0.00805	-0.108***
		(0.00438)	(0.0246)	(0.0206)	(0.00592)	(0.0189)
northernfemale			-0.0731***	-0.00285	0.00248	-0.0856***
			(0.00732)	(0.00825)	(0.00251)	(0.00682)
Constant	0.616***	0.121***	0.230***	0.289***	0.0233***	0.144***
	(0.00225)	(0.0173)	(0.0215)	(0.0241)	(0.00665)	(0.0199)
Observations	86,533	75,568	75,568	65,575	65,932	66,702
R-squared	0.004	0.093	0.138	0.078	0.012	0.073
Robust standard errors in parentheses						
*** p<0.01, ** p<0.05, * p<0.1						

II. Exploration of gender differences in education outcomes

Gender differences in education completion (primary, secondary, and university) and current school enrollment were explored separately in rural and urban areas, as well as among children of different age categories between 6 and 25 years.

Ever attended school in rural areas

Among 116,269 children between the ages of 6 and 25 years in rural areas, the likelihood that a child had ever attended school was significantly lower for girls compared to boys. For the latter, 63.2 percent had attended some school whereas the share of girls who had attended some school was 6.8 percentage points lower. This difference remained significant even after controlling for various individual and household characteristics, as column 2 of Table A shows. The age patterns was notable – the children who were least likely to have attended school were either those who were very young (because they may not have begun schooling yet) or those who were older (because school attendance was less common when they were young). Wealth measures such as housing characteristics were associated with significantly higher rates of having attended at least some school. Children from larger households were also significantly more likely to have attended some school. As with the employment figures, gender differences were largest in

the north of Nigeria. Overall rates of having attended some school were about 7.7 percentage points lower in the north than the south, even when we control for state-by-state differences. Column 3 of Table A shows that gender differences are fairly small (but still significant) in the south but much larger – on the order of 8 percentage points – in the north.

Ever attended school in urban areas

In urban areas of Nigeria, gender differences in ever having attended school were smaller – around 3.7 percentage points. Among the 37,803 children between the ages of 6 and 25, nearly 83 percent of boys had attended at least some school in the past, compared to 79 percent of girls. As in rural areas, the gender differences are small in the south – the results in column 3 of Table B show no significant differences between boys and girls. But in the north, girls in urban areas are at about the same disadvantage as girls in rural areas when it comes to ever having attended school (the gap between boys and girls is about 7.4 percentage points).

Current school enrollment in rural areas

The analysis of the NLSS data included an examination of current school enrollment rates for children under the age of 18 years. The major pattern in enrollment rates is that they are much lower in the north than the south. Even after controlling for state fixed effects and a number of individual and household characteristics, enrollment rates are 32 percentage points lower in the north. Overall, girls have enrollment rates that are significantly lower than those of boys – even after controlling for a number of individual and household characteristics. The gender differences are smaller in the south than in the north. While in the north, current enrollment rates are about 3 percentage points lower for girls than boys, in the south there is parity in enrollment rates of boys and girls. There are other patterns in enrollment rates that are notable. In accordance with past findings in the education literature, parents' education is found to be positively associated with current school enrollment. Weight measures are also positively associated with school enrollment, while children from households in which the respondents report there is not enough to buy food have lower enrollment rates.

Current school enrollment in urban areas

In urban areas, gender gaps in current school enrollment rates are smaller. Even in urban areas, gender differences are smaller in the south than in the north. While there is parity in the south in the current enrollment rates of boys and girls, whereas in the north the enrollment rates for girls are significantly lower than for boys. Enrollment rates are also lower for all children in the north compared to the south – by about 20 percentage points. Parents' education is found to be positively associated with current school enrollment in urban areas also, and once again wealth measures are positively associated with school enrollment.

Primary and secondary schooling in rural and urban areas

Our analysis provides strong evidence of gender gaps in the likelihood of having completed primary school as well as secondary school in the north of Nigeria. In the south the gaps are much smaller and generally insignificant. For completion of primary school, analysis was limited to individuals between the ages of 12 and 25, where for secondary school analysis was limited to individuals between the ages of 17 and 25. While the results in columns 1 and 2 indicate a gender gap for all of Nigeria, when the gender gap is allowed to differ in the north and south, there is always the finding that the gender gap is much larger in the north. Overall completion rates of primary and secondary school are much lower in the north than the south, in

both urban and rural areas. While the gap in completion rates between the north and south is smaller in urban areas, it is sizable even there – primary school completion rates for all children are 15 percent lower in urban areas of the north compared to urban areas of the south, and secondary school completion rates are 11 percent lower. In rural areas, for all children taken together, the gaps between the north and south are 28 and 12 percentage points for primary and secondary school completion. Wealth measures of the children's households are strongly associated with primary and secondary school completion.

Tertiary schooling in rural and urban areas (Table F)

In rural areas, completion of university education among young men aged 20 to 25 years is fairly low (less than 3 percent) and about 1 percentage point lower for young women. The analysis of the NLSS shows gender gaps that are relatively small in size, but nonetheless statistically significant. There is no evidence to suggest that gender gaps are smaller in the north, although overall completion of university education are significantly lower there (for young men and women).

In urban areas, university completion is much higher (almost 10 percent for young men and about 1.5 percentage points less for young women). There is evidence that in the north, university education is significantly less common among women than among men. Household wealth is found to have a positive and significant association with university education in urban areas as well.

Table A. Any school attendance in rural areas

	Ages 6 to 25		
	(1)	(2)	(3)
VARIABLES	Ever attended school		
Female	-0.0679***	-0.0611***	-0.00748**
	(0.00287)	(0.00260)	(0.00351)
Age		0.0786***	0.0738***
		(0.00133)	(0.00128)
Age squared		-0.00249***	-0.00235***
		(4.30e-05)	(4.11e-05)
Household size		0.0144***	0.0122***
		(0.000583)	(0.000560)
Employed recently		0.0670***	0.0401***
		(0.00280)	(0.00282)
Food poverty		-0.0166***	-0.00683***
		(0.00267)	(0.00263)
Wall wealth		0.0755***	0.0715***
		(0.00373)	(0.00378)
Floor wealth		0.154***	0.104***
		(0.00335)	(0.00337)
North		-0.302***	-0.0769***
		(0.00299)	(0.0182)
North * Female			-0.0811***
			(0.00476)
Constant	0.632***	0.0929***	0.164***
	(0.00197)	(0.0105)	(0.0122)
Observations	116,269	113,523	113,523
R-squared	0.005	0.209	0.289

Table B. Any school attendance in urban areas

	Ages 6 to 25		
	(1)	(2)	(3)
VARIABLES	Ever attended school		
Female	-0.0373***	-0.0373***	-0.00366
	(0.00404)	(0.00374)	(0.00406)
Age		0.0846***	0.0832***
		(0.00212)	(0.00209)
Age squared		-0.00255***	-0.00251***
		(6.65e-05)	(6.54e-05)
Household size		0.000697	0.00367***
		(0.000860)	(0.000865)
Employed recently		0.0406***	0.0479***
		(0.00386)	(0.00391)
Food poverty		-0.00437	-0.00432
		(0.00375)	(0.00373)
Wall wealth		0.0801***	0.0801***
		(0.00537)	(0.00542)
Floor wealth		0.136***	0.0911***
		(0.00712)	(0.00716)
North		-0.131***	0.0185
		(0.00432)	(0.0207)
North * Female			-0.0743***
			(0.00773)
Constant	0.828***	0.0935***	0.111***
	(0.00274)	(0.0171)	(0.0199)
Observations	37,803	37,090	37,090
R-squared	0.002	0.153	0.188

Table C. Current school enrollment in rural areas

	Ages 6 to 18		
	(1)	(2)	(3)
VARIABLES	currentsch	currentsch	currentsch
Female	-0.0171***	-0.0181***	-0.00169
	(0.00354)	(0.00334)	(0.00524)
Age		0.162***	0.163***
		(0.00369)	(0.00359)
Age squared		-0.00641***	-0.00653***
		(0.000164)	(0.000159)
Household size		0.00946***	0.00941***
		(0.000818)	(0.000804)
Employed recently		0.0264***	0.000983
		(0.00347)	(0.00353)
Food poverty		-0.0184***	-0.00175
		(0.00339)	(0.00340)
Wall wealth		0.00323	0.0195***
		(0.00497)	(0.00510)
Floor wealth		0.120***	0.0799***
		(0.00433)	(0.00439)
Father's education		0.193***	0.157***
		(0.00459)	(0.00457)
Mother's education		0.115***	0.0866***
		(0.00476)	(0.00472)
North		-0.186***	-0.320***
		(0.00426)	(0.0164)
North * Female			-0.0320***
			(0.00662)
Constant	0.547***	-0.478***	-0.400***
	(0.00239)	(0.0205)	(0.0225)
Observations	79,817	67,995	67,995
R-squared	0.000	0.239	0.292

Table D. Current school enrollment in urban areas

	Ages 6 to 18		
	(1)	(2)	(3)
VARIABLES	currentsch	currentsch	currentsch
female	-0.0130**	-0.00997*	0.00917
	(0.00563)	(0.00525)	(0.00617)
age		0.212***	0.212***
		(0.00618)	(0.00612)
agesq		-0.00848***	-0.00851***
		(0.000269)	(0.000266)
HHoldSize		5.75e-05	0.00350**
		(0.00134)	(0.00137)
recentempl		0.00739	0.0131**
		(0.00561)	(0.00577)
foodpov		0.00303	0.00535
		(0.00527)	(0.00528)
wallwealth		0.0409***	0.0488***
		(0.00745)	(0.00759)
floorwealth		0.106***	0.0726***
		(0.00940)	(0.00958)
Father's education		0.123***	0.106***
		(0.00823)	(0.00824)
Mother's education		0.0673***	0.0531***
		(0.00754)	(0.00752)
north		-0.0912***	-0.194***
		(0.00628)	(0.0353)
northernfemale			-0.0424***
			(0.0107)
Constant	0.737***	-0.662***	-0.620***
	(0.00390)	(0.0354)	(0.0386)
Observations	24,846	22,276	22,276
R-squared	0.000	0.176	0.200

Table E. Primary and secondary education in rural and urban areas

	Ages 12 to 25				Ages 17 to 25			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	Primary education completion				Secondary education completion			
	Rural		Urban		Rural		Urban	
Female	-0.0873***	-0.00989*	-0.0526***	-0.00303	-0.0620***	0.00365	-0.0595***	-0.0158
	(0.00342)	(0.00532)	(0.00512)	(0.00591)	(0.00388)	(0.00759)	(0.00775)	(0.0101)
Age	0.203***	0.194***	0.216***	0.213***	0.281***	0.272***	0.526***	0.521***
	(0.00396)	(0.00385)	(0.00664)	(0.00654)	(0.0125)	(0.0124)	(0.0263)	(0.0261)
Age squared	-0.00511***	-0.00485***	-0.00547***	-0.00538***	-0.00605***	-0.00584***	-0.0113***	-0.0112***
	(0.000107)	(0.000103)	(0.000177)	(0.000174)	(0.000297)	(0.000293)	(0.000625)	(0.000620)
Household size	0.0136***	0.0110***	-0.000241	0.00276**	0.00314***	0.00199**	-0.00397**	-0.00334**
	(0.000723)	(0.000707)	(0.00111)	(0.00112)	(0.000770)	(0.000775)	(0.00156)	(0.00159)
Employed recently	0.0753***	0.0502***	0.0362***	0.0408***	0.0317***	0.0226***	-0.00697	0.000143
	(0.00381)	(0.00387)	(0.00525)	(0.00530)	(0.00426)	(0.00435)	(0.00790)	(0.00801)
Food poverty	-0.00456	-0.000802	-0.0133***	-0.0137***	-0.00276	-0.00474	-0.0409***	-0.0435***
	(0.00349)	(0.00348)	(0.00513)	(0.00513)	(0.00377)	(0.00386)	(0.00774)	(0.00781)
Wall wealth	0.114***	0.0991***	0.108***	0.104***	0.144***	0.124***	0.120***	0.110***
	(0.00515)	(0.00525)	(0.00744)	(0.00757)	(0.00627)	(0.00653)	(0.0106)	(0.0109)
Floor wealth	0.140***	0.105***	0.138***	0.0902***	0.0843***	0.0732***	0.110***	0.0795***
	(0.00445)	(0.00450)	(0.00960)	(0.00972)	(0.00463)	(0.00482)	(0.0123)	(0.0127)
North	-0.283***	-0.181***	-0.150***	-0.176***	-0.121***	-0.175***	-0.112***	-0.179***
	(0.00419)	(0.0273)	(0.00599)	(0.0331)	(0.00500)	(0.0297)	(0.00873)	(0.0445)
North * Female		-0.119***		-0.114***		-0.0969***		-0.101***
		(0.00677)		(0.0107)		(0.00866)		(0.0156)
Constant	-1.405***	-1.285***	-1.390***	-1.358***	-2.986***	-2.835***	-5.596***	-5.459***
	(0.0362)	(0.0370)	(0.0610)	(0.0624)	(0.131)	(0.131)	(0.274)	(0.274)
Observations	68,229	68,229	23,803	23,803	39,521	39,521	14,127	14,127
R-squared	0.218	0.275	0.160	0.191	0.147	0.170	0.151	0.170

Table F. University education in urban and rural areas

	(1)	(2)	(3)	(4)
VARIABLES	University education completion			
	Rural		Urban	
Female	-0.00849***	-0.00883*	-0.0181***	-0.0101
	(0.00191)	(0.00493)	(0.00579)	(0.00840)
Age	0.0688***	0.0585***	0.264***	0.232***
	(0.0165)	(0.0167)	(0.0485)	(0.0481)
Age squared	-0.00147***	-0.00124***	-0.00562***	-0.00492***
	(0.000367)	(0.000372)	(0.00108)	(0.00107)
Household size	0.00147***	0.00116***	0.00245**	0.00199*
	(0.000365)	(0.000362)	(0.00117)	(0.00119)
Employed recently	-0.0204***	-0.0224***	-0.0684***	-0.0676***
	(0.00257)	(0.00263)	(0.00609)	(0.00613)
Food poverty	-0.00156	-0.00326*	-0.0194***	-0.0262***
	(0.00182)	(0.00190)	(0.00572)	(0.00577)
Wall wealth	0.0350***	0.0281***	0.0510***	0.0445***
	(0.00298)	(0.00312)	(0.00606)	(0.00630)
Floor wealth	0.00904***	0.00838***	0.00670	7.35e-05
	(0.00159)	(0.00166)	(0.00632)	(0.00681)
North	-0.0310***	-0.0308**	-0.0537***	-0.134***
	(0.00244)	(0.0140)	(0.00597)	(0.0385)
North * Female		0.000801		-0.0210*
		(0.00512)		(0.0109)
Constant	-0.757***	-0.635***	-2.971***	-2.483***
	(0.184)	(0.187)	(0.540)	(0.535)
Observations	26,173	26,173	9,397	9,397
R-squared	0.045	0.062	0.051	0.081