# KADUNA STATE, FEDERAL REPUBLIC OF NIGERIA:

# EDUCATION PUBLIC EXPENDITURE REVIEW

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The facts and opinions expressed in the report do not necessarily reflect the views and opinions of DFID or the World Bank. Given difficulties experienced in accessing accurate and complete information in the course of this study it is anticipated that some minor inconsistencies remain within this report, however these will be inconsequential to the analysis, conclusions and recommendations outlined within.

# ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| ASC | Annual School Census |
| ASUU | Academic Staff Union of Nigerian Universities |
| AUSS | Academic Staff University Salary Scale |
| CWIQ | Core Welfare Indicator Questionnaire |
| DFID | UK Department for International Development |
| EMIS | Education Management Information System |
| ETF | Education Trust Fund |
| GER | Gross Enrolment Ratio |
| HATISS | Harmonised Tertiary Institutions Salary Structure |
| HEI | Higher Education Institution |
| IGR | Internally Generated Revenue |
| JAC | Joint Account Committee |
| JSS | Junior Secondary School |
| KSG | Kaduna State Government |
| LGA | Local Government Area |
| LGEA | Local Government Education Authority |
| MTEF | Medium Term Expenditure Framework |
| NBS | National Bureau of Statistics |
| NCE | National Certificate of Education |
| NECO | National Examination Council |
| NEEDS | National Economic Empowerment and Development Strategy |
| NER | Net Enrolment Ratio |
| NLSS | National Living Standards Survey |
| NUT | National Union of Teachers |
| PCR | Pupil-Classroom Ratio |
| SEEDS | State Economic Empowerment and Development Strategy |
| SMOE | State Ministry of Education, Science and Technology |
| SSS | Senior Secondary School |
| SQTR | Student-Qualified Teacher Ratio |
| PTR | Pupil-Teacher Ratio |
| SUBEB | State Universal Basic Education Board |
| TSB | Teaching Service Board |
| UBE | Universal Basic Education |
| UBEC | Universal Basic Education Commission |
| WASSCE | West African Senior Secondary Certificate of Education |

# EXECUTIVE SUMMARY

This report provides a detailed review of public expenditure on education in Kaduna State. The focus is on education and training provision that is funded by state and local governments as well as households and other private sector contributions. Education institutions that are the direct responsibility of the federal government, principally federal universities and Unity secondary schools are not covered by the report.

The main objective of the review is to analyse (a) the sources and uses of expenditures on education by state and local governments at all levels; and (b) assess efficiency and equity effects of public spending on education. On the basis of this analysis, projections are made concerning future student enrolments, staffing and construction requirements, and recurrent and capital expenditures.

According to the preliminary results of the 2006 national population census, the population of Kaduna State is 6.1 million and the annual population growth rate is 2.8 percent. 41 percent of the population of Kaduna State live on less than one dollar a day and, as such, are considered to be poor.

Kaduna State Government (KSG) attaches high priority to the education of its citizens, which is reflected by the substantial public expenditures and investments in the education sector. During the period under review (1999-2005), KSG made concerted efforts to address the long-standing problems of low enrolment and poor educational quality, particularly at the primary and secondary education levels. The main interventions have been the restructuring of the school system, large-scale recruitment of teaching staff, the construction of many new classrooms and facilities and rehabilitation of existing ones, and the procurement of equipment and related teaching aids. One of the notable and early initiatives with regard to the restructuring of the school system was the introduction of School Management Boards in 2000 in order to increase significantly the participation of key stakeholders in the management of schools.

The main education policy thrust of the State Government as embodied in its KADSEEDS[1] document is "to attain 80 percent primary school enrolment, 100 percent transition from primary to junior secondary school (JSS), and over 40 percent transition to tertiary education by 2007". KADSEEDS identified the following factors, among others, as inhibiting education in the State: inadequate qualified personnel for teaching services, very rapid enrolment growth, particularly in the urban and semi-urban areas, inadequate teaching/teaching materials such as textbooks, equipment, and teaching aids in schools, and outdated textbooks and materials in public and school libraries.

In order to address these problems and achieve the objectives of KADSEEDS, a challenging set of targets has been agreed. A number of strategies to meet the defined targets have been established, activities outlined, and projected costs estimated. Among these strategies include: the construction of at least 600 primary schools; the purchase of textbooks; the setting aside at least ₦100 million annually for the rehabilitation of tertiary institutions; the introduction of an inducement allowance to teachers posted to rural areas; and encouraging increased private sector participation in the education sector.

[1] Kaduna SEEDS (2005 – 2007)

The main findings and conclusions of this review are summarised below; recommendations for the way forward are then presented for consideration and follow up action by the Kaduna State Government.

## Financing of education and spending patterns

### *Funding of the sector has reduced significantly*

In per capita terms, Kaduna State receives a low allocation of federal funds compared to most other states. Total public revenue per capita was USD91 in 2006, which was the third lowest out of the 36 states.

Total public (recurrent and capital) expenditure on education by KSG increased by 57 percent between 2001 and 2005: from N3.6 billion to N5.6 billion. In real terms, total expenditure on education in Kaduna state fell by 12.8 percent during this period (based on the national Consumer Price Index). State government expenditure on education as a share of total state expenditure decreased from 16 percent in 2001 to 12 percent in 2003 and 2004, but then increased to nearly 16 percent in 2005.

In real terms, total expenditure on primary education in Kaduna State fell by 62.3 percent during this period; total expenditure on secondary education fell by 21.6 percent. The share of the total federal budget allocation to each LGA that is allocated for the payment of primary school teacher salaries varies considerably among the 23 LGAs in the state.

### *Internally generated funds are growing*

The share of primary education in total public expenditure on education fell 10 percentage points - from 55 percent in 2000/01 to 45 percent in 2004/05. The share of secondary education increased marginally (from 32 to 33 percent) while the share of higher education increased sharply from 11 to 19 percent.

In response to this reduced funding there has been increased use of levying fees and charges in secondary schools. The bulk of income generation in the education sector is earned by secondary schools and that this source of income has grown very rapidly since 2000. Total internally generated revenue (IGR) for secondary education amounted to 20.5 percent of total secondary recurrent expenditure in 2005.

### *Actual expenditures on education vary from the approved budgets*

Budget estimates and actual expenditures on personnel for all the years, except 2004, show only marginal variances, and overall at least 96 percent of budget estimates on personnel costs are funded. For overhead costs, actual expenditure was in general lower than the estimates (actual expenditures in relation to estimates dropped significantly to 38.8 percent in 2004), while in 2003, overhead expenditure surpassed the approved budget estimates by 60 percent. The relationship between budget and actual for capital expenditure ranged between 21 percent in 2003 and 115 percent in 2002.

***Running costs are under funded***

Overhead expenditure in primary schools has been well under 10 percent of total recurrent expenditure for this level of education. In the past, it was expected that local governments should allocate the equivalent of 10 percent of the primary school wage bill as a contribution to the running costs of primary schools. However, this is no longer the case.

The share of recurrent expenditure allocated to overheads increased appreciably from just six percent in 2001 to 14 percent in 2005. Nevertheless, the level of overhead funding remains seriously inadequate, particularly for non-boarding schools.

## Education access and attainment

***Enrolment is increasing rapidly, but large numbers of poorer children are still not attending school***

CWIQ survey data for 2006 indicates that 34 percent of females and 17 percent of males aged 15-19 have never attended school. The corresponding figures for the age group 20-24 are 51.4 percent and 19.2 percent respectively, which shows that impressive progress has been made in raising school attendance rates among girls during the last decade. However, the number of those who have never enrolled is particularly high among the poorest households. Among the poorest 20 percent of households, nearly one half of females and one-fifth of males have never been to school. These figures for the richest 20 percent of households are 14 percent for females and seven percent for males, which are surprisingly high.

While non-attendance is clearly linked with poverty, it is noticeable that 26 percent of young women aged 15-19 who are members of the richest 20 percent of rural households and 10 percent in the same group in the urban areas have never attended school

According to the EMIS, 1.1 million children were enrolled in primary and secondary schools in Kaduna State in 2004/05. A total of around 935,000, 109,000 and 69,000 children attended primary, junior and senior secondary schools respectively during this school year. There are wide differences in enrolment ratios between rural and urban areas. There are very large enrolment disparities with respect to gender for both primary and secondary schooling.

The most noticeable feature of the current attendance rate profiles for females and males is the sharp decline in enrolment levels once children reach 11-12 year olds. This is particularly marked among girls.

***School completion rate are improving***

According to CWIQ survey data, slightly more than 54 percent of females and 65 percent of males in the age group 15-19 have completed the six-year primary education cycle. Only 24 percent of females aged 20-24 have completed the full six-year secondary education cycle compared to 41 percent for the males in the same age group. The primary school completion rates among the age group 20-24 are 80 percent for females and 95 percent for males.[2] Junior secondary school completion rates are 93 percent for both females and males but, for senior secondary schooling, they are only 78 percent for females and 71 percent for males.

[2] Not all children in the 15-19 age group have completed primary education.

***Access to schooling varies both by gender and location***

The CWIQ survey indicates that, in aggregate terms, the difference in female and male GERs is 11, 14 and 13 percentage points for primary, JJS and SSS education respectively. The extent of gender enrolment disparities varies very considerably across the 23 local government areas, especially with respect to secondary schooling

Gross and net enrolment ratios for primary school age children are appreciably lower in the rural areas than the corresponding rates for the urban areas. Transition rates from primary school to JSS and from JSS to SSS also vary markedly across LGEAs, which is also symptomatic of large locational variations in access to schooling.

## Resource utilisation

***Teacher numbers have increased substantially***

There were 28,769 primary school teachers employed in December 2005. A total of 6,680 teachers were employed in public secondary school teachers in the same year. Despite the official freeze on new civil service posts, the number of primary school teachers employed at public primary schools almost doubled between 2000 and 2005. The total number of secondary school teachers increased by 27 percent (from 5,241) between 2001/02 and 2004/05.

Only 42 percent and 31 percent of teachers at primary and secondary schools respectively were women in 2004/2005.

***Teachers are not sufficiently competent and motivation is low***

Currently, 42 percent of secondary school teachers are university graduates and another 44 percent are NCE holders. Only 37 percent of teachers at government primary schools were fully qualified (i.e. possessed NCE or university education degree or post-graduate teaching diploma) in 2004/05. At private schools 39 percent of primary teachers and 56 percent of secondary teachers were qualified in 2004/05.

Low and declining motivation among teachers at government schools in Kaduna State is a major concern. Primary school teacher salary level is on average around 2.2 as multiple of national GDP per capita, which is very low as compared with other Sub-Saharan African standards. For most teachers, their pay does not cover more than half of their monthly requirements. Consequently, many teachers are forced to find additional income earning opportunities, which can have a serious impact on their overall motivation.

***Deployment and workload of teachers are neither efficient nor equitable***

Qualified and more experienced teachers are concentrated at urban schools, which tend to be over-staffed. By contrast, schools in rural areas face major problems in attracting and retaining adequately qualified and experienced teachers.

What is striking is the wide dispersion of teachers employed at schools with the same number of students. The lack of consistent adherence to staffing norms is a key reason for this. There

is no statistically significant correlation between school enrolments and the number of teachers working at these schools.

The average pupil-teacher ratio (PTR) was around 33, which is very lower than the national norms. The reported overcrowded classes (average class size is around 70) might indicate low rate of teaching loads for a great number of teachers as compared with the recommended 39 periods per week. The average number of periods per week in junior and senior secondary schools are, however, much lower at only 21 and 15 periods respectively.

***School sizes are small, accommodation is sub standard, and access to learning materials is limited***

Government primary and secondary schools are generally quite small in Kaduna State, which has major implications for resource utilisation and efficiency. Average student enrolment at primary schools is less than 300 in 14 out of 23 LGEAs

Despite some improvements in recent years, classroom accommodation for the large majority of students at both primary and secondary government schools remains seriously sub-standard. Classrooms are seriously congested, especially in urban areas where shortages of classrooms mean that there are frequently more than one hundred students in each classroom.

It is KSG policy that all children at primary school should have exclusive access to the prescribed textbooks for the four core subjects. Current student-core textbook ratios for primary education are 3.5:1, which means that only seven percent of the required textbooks are available. Textbook availability is worse for secondary school student with student-textbook ratios of 10.3:1 for JSS and 13.9:1 for SSS.

## Education outputs

***Examination results are very poor***

In 2005, only 2.0 percent of candidates passed with at least five credits including both English and mathematics in the WASSCE examinations.

## Enrolment and expenditure projections

***Enrolment is projected to nearly double by 2015/16***

On the basis of the NBS population projections, primary school enrolments will increase from 935,000 in 2005/06 to 1,413, 000 in 2015/16. Junior secondary school enrolments are projected to increase nearly fourfold - from 109,000 to 429,000 in 2015/16. Even assuming that the transition rate from junior to senior secondary schooling declines to 50 percent by 2015/16, projected senior secondary school enrolments still increase from 69, 000 in 2005/06 to 269, 000.

***Funding requirements for recurrent costs will increase by a factor of 2.2***

For primary education, projected recurrent expenditure increases from N6.2 billion in 2005/06 to N10.7 billion in 2015/16 with no change in PTRs and N9.6 billion with the target PTRs. For JSS, under scenario 1[3], expenditure increases from N1.2 billion to N18.8 billion and N20.7 billion for the no change and target PTR scenarios respectively. The corresponding figures for SSS are from N0.8 billion to N 3.8 billion and N 3.3 billion.

In addition over the next 9 years an extra N53 billion will needed for capital expenditure for construction and classroom furniture, libraries and science equipment to accommodate additional enrolments.

## Private sector

***The private sector appears to be a substantial service provider***

According to the NLSS, non-government (i.e. religious, private and community) schools account for 22.0 percent of enrolments in the primary age group (6-11) and 18.3 percent in the secondary age group (12-17).

On the basis of household expenditure data, total private expenditure on primary and secondary schooling amounts to around 0.49 billion per annum, which is only 4.7 percent of total (public and private) expenditure on education in 2005.

## Higher education

***HEIs are underfunded***

All the HEIs are in urgent need of additional funding. Unless the level of funding is improved, the organisations will come under increasing pressure to increase registration fees and/or further expand student intakes. Around 26,000 students were enrolled at the five main HEIs in 2005/06. Enrolments at some HEIs have increased very rapidly, while at others, enrolments have increased relatively little over the last five years

The ability to generate internal revenue varies considerably among the HEIs. All HEIs are also severely constrained in the level of tuition fees and other charges that they can levy for full-time students mainly because the ability to pay of students is limited coupled with the state government's policy of free education. Given these relatively low fees/charges, internally generated income accounts for only 10-25 percent of total revenue at the HEIs

***Learning outcomes are poor***

Student-lecturer ratios have risen considerably. These ratios range from 37:1 at the College of Education to 9:1 at the state university, though this is largely attributable to it being a new organisation.

[3] Scenario 1 has rapd increases in Pr- to JS transition rates of 100% by 2010, scenario 2 reaches 100% by 2015 and results in lower projected expenditure than scenario 1

Only 20.1 percent of academic staff at the five HEIs have post-graduate qualifications - 18 PhDs (13 of which are at KSU) and 149 master degrees. Despite large enrolments with over-stretched and increasingly de-motivated teaching staff, course completion rate at most of the HEIs are generally quite high.

However the ultimate product is low quality education and training provision with graduates who are generally not well prepared for their chosen areas of occupational specialisation.

## Way forward

### *Strengthen system planning and resource management*

There are five priority areas for improvement: introducing sector planning through the preparation of costed medium term sector strategies (MTSS); linking the MTSS's to a fundable medium term expenditure framework (MTEF); improving budgetary outcomes through adopting a performance management system; increasing parental and community involvement in the management of schools and increasing the delegation of financial management to schools for the use of UBEC funds.

### *Increase funding*

Various sources of additional funding to the sector need to be explored: Federal Account allocation, share of the state budget, federal funding, local government, private sector and development partners.

Consideration should be given to the following targeted recommendations. On equity grounds, the overall federal allocation to Kaduna State should be increased substantially. Public revenue per capita (including both federal allocations to the state and LGAs) was USD91 per annum in 2006, which was around USD35 lower than the average per capita allocation for the country as a whole. Also a strong case can be made for the share of the state budget that is allocated to education to be increased to at least 25 percent, which is considerably higher than the current share of 16 percent, but it is essential in order to meet the minimum funding requirements for UBE presented in this report.

### *Deliver major efficiency improvements*

Strengthen accountabilities and improve incentives through a comprehensive package of reforms: clear and transparent performance standards, public disclosure of the performance of service providers (schools and support services such as inspection, construction, curriculum, and the provision of learning materials), effective support and appraisal of teachers and school managers, and appropriate governance structures that allow the full involvement of parents and local communities in the management of schools.

Considerable scope exists for improving the utilisation of teachers in Kaduna State. In particular, the average teaching loads of JSS and SSS teachers are only 21 and 15 periods a week respectively. Increasing these teaching loads will achieve major resource savings, which could be used for the provision of a minimum package of learning materials for all students and the construction of new classrooms.

On both equity and efficiency grounds, the deployment of teachers should, be improved considerably. In addition, the current highly skewed deployment of qualified teachers results in higher public expenditure per student at schools in urban areas. Allocation formulae can be devised that ensure that public expenditure per student is more equal.

***Upgrade the learning environment***

Average class sizes in primary schools need to be reduced by well over one half their current levels over the next decade in order to ensure a minimally acceptable learning environment. In addition, a more concerted effort is needed in order to upgrade the 63 percent of public primary school teachers who are not qualified to the NCE level. The provision of textbooks for the four core primary school subjects is the third major area that needs to be urgently addressed.

***Improve access***

As enrolments continue to expand, more attention will need to be given to targeting of the poorest, hardest to reach children. Half of girls and nearly one quarter of boys in the lowest income quintile do not currently attend school. Demand enhancing interventions are the only way in which these children will be able to attend school. School feeding could have a major impact in improving school attendance.

***Complete a fundamental review of higher education***

The whole sub sector should be comprehensively reviewed. In particular, the future goals of higher education in the state and the required skills/competences that are needed to meet national and state development strategies should be carefully formulated. A clear vision and a sound policy for higher education are required in order to guide decision-making and action at various levels. The funding issues need to be addressed.

There is also considerable scope for better management of HEIs. The training of university managers and administrators in all key areas including strategic, financial and human management is therefore essential.

# GLOSSARY OF TERMS USED IN THIS DOCUMENT

Class size (or pupil-class ratio): The number of students a teacher has in his/her class at a given time. In Nigeria, stream is frequently used to mean a class.

Core Welfare Indicators Questionnaire (CWIQ) survey: CWIQ survey is designed to produce indicators of social welfare to provide instrument for the continuous monitoring of poverty reduction programmes and social development in general. The 2006 Nigerian CWIQ was a nationwide sample survey conducted to produce welfare indicators for the population at national and sub-national levels, particularly Zones, States and Senatorial Districts. The Survey compliments 2004 Nigerian Living Standards Survey (NLSS) by NBS which profiled poverty in the country.

Dropout rate: The proportion of pupils leaving school without completing a given grade in a given school-year expressed as a percentage of those who were enrolled in the same grade at the beginning of that grade at the beginning of the same school-year. ASC (NEMIS) data in Nigeria show that this rate is low, however there is need to further investigate this situation in order to better appraise the internal efficiency of the system.

Education Trust Fund (ETF): The ETF is a major source of funding for capital expenditures in many states of Nigeria. The ETF is a trust fund established by decree in 1993 (amended by Act 40 of 1998) with the objective of using funding combined with project management to improve the quality of education in Nigeria. All corporations and companies of identified minimum operating capacity and registered in Nigeria contribute a levy of 2% of their annual assessable profits to the Fund which complements Federal, State and Local Government budgets for the three levels of education nationwide.

Gross completion rate: The total number of students completing (or graduating from) the final year of primary or secondary education, regardless of age, expressed as a percentage of the population of the official primary or secondary graduation age. Primary completion rate in Nigeria is to be calculated by dividing the number of students completing (or graduating from) the grade 6 of primary schools by the population of the official graduation age (age 12).

Gross enrolment ratio (GER): Total enrolment in a specific level of education, regardless of age, expressed as a percentage of the eligible official school-age population corresponding to the same level of education in a given school-year. GER can be disaggregated by gender or by location to assess the equity levels. For example, GER for females at JS level is calculated by dividing the number of female pupils (or students) enrolled in JS level regardless of age by the female population of the age-group which officially corresponds to this level of education (age 12-14).

Gross intake rate (GIR): Total number of new entrants in the first grade of primary education, regardless of age, expressed as a percentage of the population at the official primary school-entrance age (6 in Nigeria). Apparent intake rate is alternatively used.

Multigrade class: Multigrade class structure is known by various names in different countries; these include "composite" or "combination" classes, "double" classes, "split" classes, "mixed-age" classes and "vertically grouped" classes. Multigrade classes can be defined as pedagogical sections where groups of students of different grades are taught in a single classroom. In Nigeria, such classes are rather a rare phenomenon, which may however be worth investigating, especially in small schools in order to optimize the resource utilization (teachers, buildings, etc.)

Net enrolment ratio (NER): Enrolment of the official age-group for a given level of education expressed as a percentage of the corresponding population. NER for primary education in Nigeria is calculated by dividing the number of pupils enrolled who are of the official age-group for the primary education level by the population for the same age-group (age 6-11).

Net intake rate (NIR): New entrants in the first grade of primary education who are of the official primary school-entrance age, expressed as a percentage of the population of the same age. In the context of Nigeria, this rate can be calculated by dividing the number of children of official primary school-entrance age (6) who enter the first grade of primary education by the population of the same age (6).

Percentage distribution of public current expenditure on education by level: Public current expenditure for each level of education, expressed as a percentage of total public current expenditure on education. One will have to make distinction between approved and actual expenditure because the gap between these two can be high. This indicator is important to appraise the importance accorded by a Government for the development of a given level of education.

Promotion rate: The proportion of pupils enrolled in a given grade in a given school-year who will at the beginning of the following school-year, be enrolled in the next higher grade.

Public expenditure on education as percentage of gross domestic product (%GDP): Total public expenditure on education (current and capital) expressed as a percentage of the Gross Domestic Product (GDP) in a given financial year. It is calculated by dividing total public expenditure on education in a given financial year by the GDP of the country or the state for the corresponding year. Due to lack of information of GDP at state level, this indicator cannot be calculated presently, but would be worth as soon as state-level GDP is available.

Public expenditure on education as percentage of total public expenditure: Total public expenditure on education (current and capital) expressed as a percentage of total public expenditure in a given financial year. One will have to make distinction between approved and actual expenditure because the gap between these two can be high. It is calculated by dividing total expenditure on education incurred by all government agencies/departments in a given financial year by the total government expenditure for the same financial year.

Pupil-classroom ratio (PCR): The ratio of the number of pupils (students) to the number of classrooms. For example, in a Nigeria state, the number of pupils (students) enrolled

in this state at a level of education is divided by the number of classrooms available in this state for providing learning at this level of education.

Pupil-teacher ratio (PTR): Otherwise called "student-teacher ratio" or "students per teacher", this indicator expresses the average number of pupils (students) per teacher at a specific level of education in a given school-year. For the purpose of examining system-wide pupil-teacher ratios, teachers are defined as persons whose professional activity involves the facilitation of learning and the acquisition of attitudes and skills that are stipulated in a formal curriculum by students enrolled in a formal educational institution. Non-formal institutions require a separate investigation. Their staffing is likely to be considerably different from formal institutions. Cross-country or cross-state comparisons may be affected by such factors as the composition of teachers by part- and full-time employment. PTR is not the same and is generally lower than "average class size". This is because PTR calculation includes teachers who run special programmes, such as music, art and special education, where they may teach smaller groups of students.

Repetition rate: the proportion of pupils from a cohort enrolled in a given grade in a given school-year who are studying in the same grade in the following school-year. This rate is slightly different from the percentage of repeaters.

State Education Public Expenditure Review (SEPER): Public expenditure reviews (PERs) aimed to describe sector-related issues and challenges in the context of the overall economic and fiscal situation. PERs analyze how funds to the sector are allocated, released and disbursed. Education public expenditure reviews explicit the prevailing efficiency and effectiveness of public spending on education and explore the ways and means for obtaining desirable levels of resource allocation and utilization for achieving educational objectives in the context of anticipated economic and fiscal situations. State Education Public Expenditure Reviews in Nigeria carry out a thorough analysis of public expenditure on education by analysing the sources and uses of funds by state and local governments for primary, secondary and higher education, assess the efficiency and effectiveness of public spending on education and, on the basis of these analyses, make enrolment and expenditure projections for primary and secondary education for the period 2005-2016.

Survival rates by grade (SR): Percentage of a cohort of pupils (or students) enrolled in the first grade of a given level or cycle of education in a given school-year who are expected to reach successive grades. They are calculated by dividing the total number of pupils belonging to a school-cohort who reached each successive grade of the specified level of education by the number of pupils in the school-cohort, i.e. those originally enrolled in the first grade of primary education. This indicator can be calculated by means of reconstituted cohort analysis, which is difficult now in Nigeria because of the inaccuracy of the data on repeaters and drop-outs.

Teachers' emoluments (salaries) as multiple of GDP per capita: This indicates the level of teacher salaries in comparison with the affordability of a country or state's economic and financial situation. It is calculated by dividing the total amount of salaries devoted to all or a category of teachers of all or part of the education system in a given financial year by the GDP per capita of the same financial year. Cross-country, cross-state or cross-sectoral comparisons can allow to see the level of salaries one

education system is allocating to teachers, and to analyze the cost-efficiency of the system, the teacher motivation, etc.

Transition rate (TR): The number of pupils (or students) admitted to the first grade of a higher level of education in a given year, expressed as a percentage of the number of pupils (or students) enrolled in the final grade of the lower level of education in the previous year. Transition rate from primary to junior secondary education is calculated by dividing the number of new entrants in the first grade of junior secondary education by the number of pupils who were enrolled in the final grade of the primary education in the previous school year.

UBE Intervention Fund: The Universal Basic Education Law, signed in 2004, provides for funding the UBE programme from three principal sources: (i) Block grants from the Federal Government of not less than 2 per cent of its Consolidated Revenue Fund, which will be in the form of proposed federal matching contributions to states for financing of primary education; (ii) funds or contributions in the form of federal guaranteed credits and loans, and (iii) international donor grants. For any state to qualify for UBE grant funds, it must contribute not less than 50 percent of its total cost of projects as a cost-share. The criteria for fund utilization are as follows: (a) expenditure by components of UBE programme (Pre-primary 5%, Primary 60%, Junior Secondary 35%); (b) expenditure by activities in each of the components of the UBE Programme (Infrastructural development 70% including classroom construction, classroom furniture, classroom renovation/rehabilitation, laboratory/workshop equipment, introductory technology equipment, borehole construction, construction of toilets, etc.; Textbooks and working materials 15%, including development/ procurement of textbooks for pre-primary, four basic core subjects for primary and five basic core subjects for junior secondary schools, library books, development/procurement of teachers' guide for pre-primary, four core subjects for primary schools and five core subjects for junior secondary schools, teaching aids (excluding consumables), etc.; and teacher professional Development 15% including short-term training and re-training of teachers at the three levels, with more emphasis on primary, JSS and pre-primary, in that order to be conducted by either the National Teachers' Institute (NTI), Colleges of Education (COEs) or Institutes of Education and NIEPA to conduct those for managers of UBE institutions.)

# 1. INTRODUCTION

## 1.1 STUDY OBJECTIVES

1. This study has three main objectives namely, to analyse the costs and financing of education, to estimate the costs of achieving the Millennium Development Goals (MDGs) for education and to build capacity in the relevant ministries and to promote a dialogue on how to increase efficiency, effectiveness and equity of public spending on education.

2. The terms of reference for the study are as follows:

- Collect information and other data relating to education finance and expenditure at all levels of education and training in Kaduna State for the period 1999-2005;
- Review the education and training policies of the State Government, describe and evaluate the adequacy of the fiscal instruments for achieving these aims, and contrast the allocations and actual expenditures for education and training;
- Produce two deliverables, namely the raw data that has been collected and a narrative report.

3. The study analyses, therefore, the overall education policy framework, education revenues and expenditures, enrolments, human and physical resource utilisation, and education outputs and outcomes at all levels of education, primary, secondary and tertiary. All higher education and training institutions funded by the state government are included in the study.

## 1.2 METHODOLOGY

4. Data collection was undertaken over a two-month period in early-mid 2006. Three main sources of information were drawn upon namely, interviews, documents, and statistical data. Senior managers and other officials were interviewed in the State Ministry of Education (SMoE), including the State Universal Basic Education Board (SUBEB) and the Teaching Service Board (TSB), the Ministries of Finance and Local Government, heads of all state-level higher education and training institutions, and other key education stakeholders.

5. Where appropriate, statistical data from the following three major surveys have also been utilised; (i) the SMoE's Education Management Information System (EMIS), which is based on information gathered from the Annual School Census (ASC); (ii) The 2005 National Living Standards Survey conducted by the National Bureau of Statistics (NSB). A total of 22,000 households were surveyed during the course of the year thereby enabling detailed information on household incomes and expenditures to be collected; and (iii) The Core Welfare Indicator Questionnaire (CWIQ) Survey, again conducted by the NBS, which is based on a sample of 100 households from each of the country's 774 Local Government Areas making a total of 77,400 households with over 350,000 individuals.

## 1.3 DATA LIMITATIONS

6. It was possible to collect the bulk of the data needed for the review. However, as will be made clear in the relevant chapters, some information was not available. There are also some concerns about the coverage and accuracy of information provided by head teachers as part of the Annual School Census exercise.

## 1.4 KADUNA STATE: AN OVERVIEW

7. Kaduna State was part of the defunct North Central State, which was one of the 12 States created in 1967, and comprised the present Kaduna and Katsina States. The present Kaduna State came into existence in 1987 after the creation of Katsina State from the original North Central State (renamed Kaduna State in 1976). The State is in the North West geo-political zone of the Federation and has 23 Local Government Areas (LGA).

8. According to the preliminary results of the 2006 Census, the population of Kaduna State is 6.07 million. The State has one of the fastest growing economies in the Federation, particularly in the Northern States, as evidenced by the high levels of industrial and commercial activities. Even so, agriculture and non-farm rural activities continue to provide employment and livelihood to over 75 percent of the State's population. The main urban centres are Kaduna, Zaria, Kafanchan, Kagoro, Zonkwa, Birnin Gwari, Makarfi, and Zangon Kataf.

## 1.5 EDUCATION POLICY

9. Kaduna State Government (KSG) attaches very high priority to the education of its citizens, which is reflected by the substantial public expenditures and investments in the education sector. During the period under review (1999-2005), KSG made concerted efforts to address the long-standing problems of low enrolment and poor educational quality, particularly at the primary and secondary education levels. The main interventions have been the restructuring of the school system, large-scale recruitment of teaching staff, the construction of many new classrooms and facilities and rehabilitation of existing ones, and the procurement of equipment and related teaching aids. In this regard, the State has benefited from the support of international development partners including the World Bank, UK Department for International Development (DFID), and the Japan International Cooperation Agency (JICA).

10. One of the notable and early initiatives with regard to the restructuring of the school system was the introduction of School Management Boards in 2000 in order to increase significantly the participation of key stakeholders in the management of schools. Ten schools were selected to pilot this initiative.[4] The law establishing these management boards (KDS Law No. 8 of 2001) provides among other things that the Boards shall be responsible for:

- General welfare of all staff and students;
- Execution of capital projects
- Implementation of Government policy on education
- Promotion of communal participation in running of the school,
- Fixing and collection of school fees, charge, and levies,
- Preparation of annual budgets,
- Monitoring and control of budgetary expenditure of the school,
- Assessment of the academic performance and progress of each student, etc.

In addition, the State Government has established a Science and Technical Schools Management Board and a new divisional inspectorate system.

[4] Barewa College, Zaria; Alhudahuda College, Zaria; Sardauna Memorial College Kaduna; Government College, Kaduna; Government Secondary School, Kagoro; Rimi College, Kaduna; G.G.C. Zonkwa; Queen Amina College, Kaduna, Capital School, Kaduna; and Government Secondary School, Fadan Kaje

**The Kaduna State Education Summit**

11. Two other more recent developments point to KSG's strong commitment to improving education provision, namely the convening of a State Education Summit in 2005 and the formulation of a comprehensive package of education goals and related policies as part of the state's Economic Empowerment and Development Strategy (KADSEEDS). The main objectives of the Summit were to:

- Sensitise stakeholders to the deteriorating state of education in Kaduna State and afford them the opportunity to consider the way forward for the system.
- Discuss the problems of funding and arrive at a cost-sharing formula among the principal stakeholders (parents, communities, the private sector, and local and state governments).
- Bring into focus the problems relating to the administration of schools, colleges, and other educational institutions and the serious deficiencies in the human and physical resources in the educational system of the State and then propose ways of reinvigorating them.
- Translate the conclusions and recommendation of the Summit into a work plan or blueprint for the educational development of the State.

12. The Summit identified a number of relevant sub-themes including; funding, policy formulation and implementation, the almajiri phenomena, and primary, secondary and tertiary education. For each sub-theme, the Summit identified specific objectives as well as strategies/methodology, implementer, and time frame. A number of far reaching resolutions were taken and an elaborate framework for implementation was produced. It is, however, not clear what specific steps have so far been taken by KSG to implement these resolutions.

**The State Economic Empowerment and Development Strategy**

13. The main education policy trust of the State Government as embodied in its KADSEEDS document is "to attain 80 percent primary school enrolment, 100 percent transition from primary to junior secondary school (JSS), and over 40 percent transition to tertiary education by 2007". KADSEEDS identified the following factors, among others, as militating against education in the State: inadequate qualified personnel for teaching services, very rapid enrolment growth, particularly in the urban and semi-urban areas, inadequate teaching/teaching materials such as textbooks, equipment, and teaching aids in schools, and outdated textbooks and materials in public and school libraries.

14. In order to address these problems and achieve the objectives of KADSEEDS, the following targets have been set:

- Increase the proportion of the girl-child primary school enrolment from 29 percent of total enrolments in 2004 to 40 percent by 2007.
- Increase the overall primary school enrolment from 50 percent to 80 percent by 2007.
- Monitor progress with respect to educational outcomes, relying in particular on examination results.
- Increasing the ratio of students to mathematics and physics teachers from 268:1 and 336:1 respectively to 100:1 each by 2007.

15. A number of strategies to meet the defined targets have been established, activities outlined, and projected costs estimated. Among these strategies include: the construction of at least 600 primary schools; the purchase of textbooks; the setting aside at least ₦100 million annually for the rehabilitation of tertiary institutions; the introduction of an inducement allowance to teachers posted to rural areas; and encouraging increased private sector participation in the education sector.

## 1.6 KEY CHALLENGES

16. Despite the substantial expenditures and investment in the sector, education remains one of the key problem areas of the State Government. In 2004, a briefing note to a World Bank Human Development Team by the Ministry of Education concluded that with respect to primary education;

> "The inception of the present Administration (in 1999) has witnessed a positive commitment to the improvement of education as shown in the infrastructural expansion, rehabilitation of existing facilities, construction of additional facilities, procurement of equipment, employment of additional manpower as well as improved budgetary allocation to education. But the output in terms of quality of education measured by teacher-student ratio is still worrisome"

17. The Ministry also informed the Team that "about 56 percent of school aged children were out of school during the 2003/2004 academic session while the enrolment ratio at the secondary school level was only 39 percent." This of course indicates that the State Government has to contend with not only low education outputs and outcomes, but equally low enrolment levels at both primary and secondary school, both of which impact negatively on enrolment and performance levels at the tertiary level. These and many other problems combine to minimize the impact of the investments in the sector on education outputs and outcomes in the State.

# 2. FUNDING AND EXPENDITURE

18. This chapter assesses revenue and expenditure patterns for the education sector in Kaduna State between 1999 and 2005. It focuses on primary and secondary education. The discussion is structured as follows. Section 1 briefly reviews the main features of the public budget process for the education sector in the state, which is then followed by a review of the overall funding of the education sector in the state. The final section looks in some detail at the pattern of recurrent and capital expenditures on education.

19. The three main levels of government in Nigeria, namely federal, state and local, have concurrent responsibilities for the provision and funding of primary education, which considerably complicates the budgetary and resource allocation processes. Local governments are constitutionally responsible for paying the salaries of primary school teachers and support staff and, in addition, provide funding for overhead and capital expenditures. The federal government supports primary education directly through the UBE Intervention Fund. The state MoE is mainly responsible for the overall funding of all public secondary schools and provides annual subventions to the three state-level HEIs, 12 secondary schools with their own management boards, and another three education parastatals. It also funds the personnel and overhead costs of SUBEB and the LGEAs and supports primary school construction activities, mainly under the auspices of the aforementioned UBE intervention fund.

## 2.1 THE BUDGETING PROCESS

20. The State's budgetary process follows traditional incremental procedures. Tertiary educational institutions participate in the process through their parent ministry, the Ministry of Education (SMoE). They prepare their annual budget proposals through this ministry. Public secondary schools (except the 12 schools with their own Schools Management Boards, which are classified as parastatals) do not normally submit any budget proposals/requests. The SMoE prepares a cumulative budget on their behalf and they are, in turn, funded through the Ministry. The 12 special schools prepare their own budgets, which are funded directly. However, capital budgets for all the schools, including the special ones are prepared by the SMoE and are funded directly by KSG. The essence of the existing procedure is that quite often, the special needs or circumstances of individual schools are not taken into consideration in the budgetary process. Primary school budgets are also prepared lump sum by the SUBEB, and the Board also funds individual schools.

21. All educational institutions, including primary schools, have the authority to raise internal revenues through designated sources, including charges, levies, PTA and incomes from other activities. They are authorized to use such funds to meet some of their recurrent, particularly overhead, needs. It is instructive to note that the funding of primary and secondary institutions in the State accords priority first to personnel costs, which change incrementally from one year to the other in accordance with the number of staff on the payroll; then capital expenditures, and lastly overhead costs, which are seen essentially as residuals from the recurrent budget after provision is made for personnel costs.

22. Table 2.1 shows the relationship between budget estimates and actual expenditures (personnel, overhead and capital) for the 2002-2005 fiscal years. Budget estimates and actual expenditures on personnel for all the years, except 2004, show only marginal variances, and

overall at least 96 percent of budget estimates on personnel costs are funded. For overhead costs, actual expenditure was in general lower than the estimates (actual expenditures in relation to estimates dropped significantly to 38.8 percent in 2004), while in 2003, overhead expenditure surpassed the approved budget estimates by 60 percent. The relationship between budget and actual for capital expenditure ranged between 21 percent in 2003 and 115 percent in 2002.

**Table 2-1: KSG approved recurrent and capital budgets and actual expenditures, 2002 – 2005 (N rounded millions)**

| | Personnel | | Actual as % of | Overheads | | Actual as % of | Capital | | Actual as % of | Total | | Actual as % of |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Budget | Actual | budget | Budget | Actual | budget | Budget | Actual | budget | Budget | Actual | budget |
| 2002 | 1,793 | 1,786 | 99.6 | 671 | 353 | 52.5 | 869 | 998 | 114.8 | 3,333 | 3,137 | 94.1 |
| 2003 | 2,066 | 1,985 | 96.1 | 902 | 1,445 | 160.3 | 3,404 | 714 | 21.0 | 6,372 | 4,144 | 65.0 |
| 2004 | 1,828 | 2,634 | 144.1 | 2,195 | 852 | 38.8 | 941 | 1,001 | 106.4 | 4,964 | 4,487 | 90.4 |
| 2005 | 1,911 | 1,911 | 100 | 1,562 | 1,447 | 92.6 | 999 | 1,083 | 108.4 | 4,472 | 4,441 | 99.3 |

**Source:** Detail Report of the Accountant General, Kaduna State, 2002 - 2005
**Note:** The budget estimates are as revised in the respective fiscal years

23. Budget implementation generally follows a monthly cash funding process. Allocations are released on a monthly basis largely on the cash flow circumstances of the State government. In the event of major shortfalls in expected revenue, the entire budget may be revised to reflect realities of prevailing cash circumstances, while a major windfall will also lead to budget revision.

## 2.2 PUBLIC FUNDING

24. Contributions from the Federation Account have comprised 53-60 percent of the total income of KSG since 2001 (see Table 2.2). Total income increased in nominal terms by some 87 percent, but in real terms by a marginal 4 percent between 2001 and 2005, with a sharp decline between 2003 and 2004.

**Table 2-2: Income sources for Kaduna State Government 2001-2005 (N rounded millions)**

| | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|
| **Nominal terms** | | | | | |
| Federation Account | 11,793 | 12,787 | 14,127 | 20,539 | 24,505 |
| Internally generated revenue | 2,552 | 3,246 | 4,599 | 5,590 | 5,545 |
| Value Added Tax | 1,562 | 1,854 | 2,240 | 2,614 | 8,940 |
| Other | 6,318 | 6,221 | 4,104 | 5,681 | 2,582 |
| **Total** | **22,225** | **24,108** | **25,070** | **34,424** | **41,572** |
| **Real terms (2006 CPI)** | | | | | |
| **Total** | **45,032** | **43,434** | **35,522** | **42,236** | **46,888** |

**Source**: Reports of the Accountant General

## State government funding of education

25. Total public (recurrent and capital) expenditure on education by KSG increased by 57 percent between 2001 and 2005 - N3.6 billion to N5.6 billion (see Table 2.3). In real terms, total expenditure on education in Kaduna state fell by 12.8 percent during this period (based on the national CPI). State government expenditure on education as a share of total state expenditure decreased from 16 percent in 2001 to 12 percent in 2003 and 2004, but then increased to nearly 16 percent in 2005 (see Table 2.4). No state-level GDP estimates are available so it is not possible to estimate the share of public and private expenditure in total state GDP.

26. At least 95 percent of public funding for public (state-level) tertiary and secondary education comes from the state government. Staffing costs for government primary schools are the responsibility of local governments. The total salary bill for primary school teachers and support staff is deducted by the state government as a first charge from the federal budget allocation for each local government and administered by SUBEB.

**Table 2-3: Total actual state expenditure on education and total state expenditure, 2001-2005 (N rounded millions)**

| **Nominal terms** | **2001** | **2002** | **2003** | **2004** | **2005** |
|---|---|---|---|---|---|
| **EDUCATION SECTOR** | | | | | |
| Recurrent expenditure | 2,076 | 2,180 | 2,071 | 2,838 | 3,697 |
| Capital expenditure | 1,520 | 1,523 | 956 | 1,576 | 1,932 |
| **TOTAL** | **3,596** | **3,703** | **3,027** | **4,414** | **5,629** |
| **STATE TOTAL** | | | | | |
| Recurrent expenditure | 11,042 | 15,457 | 18,884 | 21,050 | 21,866 |
| Capital expenditure | 11,051 | 8,420 | 6,209 | 15,120 | 14,192 |
| **TOTAL** | **22,093** | **23,877** | **25,093** | **36,170** | **36,058** |
| **Real terms (2006 CPI)** | **2001** | **2002** | **2003** | **2004** | **2005** |
| **EDUCATION SECTOR TOTAL** | **7,286** | **6,672** | **4,289** | **5,416** | **6,349** |
| **STATE TOTAL** | **44,764** | **43,018** | **35,554** | **44,378** | **40,669** |

**Note**: Excludes LGA expenditures
**Source**: Reports of the Accountant General

**Table 2-4: State education recurrent and capital expenditure as a percentage of total state recurrent and capital expenditure, 2001-2005**

| | **2001** | **2002** | **2003** | **2004** | **2005** |
|---|---|---|---|---|---|
| Recurrent | 18.8 | 14.1 | 11.0 | 13.5 | 16.9 |
| Capital | 13.8 | 18.1 | 15.4 | 10.4 | 13.6 |
| Total expenditure | 16.3 | 15.5 | 12.1 | 12.2 | 15.6 |

**Note**: Actual expenditures
**Source**: Reports of the Accountant General

## Local government funding

27. The contribution of local governments to meeting the staffing costs of primary schools accounted for 46.4 percent of their public recurrent and capital expenditure on education in 2005, down from 54.9 percent in 2001. Data on the overhead contributions and capital expenditures of local governments made independently of the SMoE and SUBEB could not be obtained, but it appears that this funding is negligible.

28. The share of the total federal budget allocation to each LGA that is allocated for the payment of primary school teacher salaries varies very considerably among the 23 LGAs in the

state. At one extreme, Zangon LGA devoted 40.6 percent of its federal allocation to primary school staffing costs in 2005 while, at the other, this allocation was only 14.2 percent for Gwari LGA (see Table 2.5). A positive although not very marked relationship exists between the size of the primary school emolument share and teacher expenditure per student (which accounts for over 85 percent of total unit costs). In other words, low-allocation LGAs spend considerably less on teachers, and thus the proportions of relatively expensive qualified teachers tend to be low[5]. Class sizes are also particularly large in low allocation LGAs.

29. There are three reasons for this variability in LGA funding of primary education. First, it reflects differing levels of commitment by local politicians and elites to primary education since LGAs decide on staffing levels at primary schools. Secondly, rural LGAs are often less able to attract qualified and experienced teachers, who have considerably higher salary costs. And thirdly, LGAs with high population densities are expected to spend more on primary education because enrolments are particularly high in these locations. The high degree of variability in the LGA funding for primary education highlights a potentially serious drawback in the decentralisation of primary education provision, especially when minimum national standards of

**Table 2-5: Share of LGA federal allocation spent on primary school staff salaries by LGA, 2005/06**

| LGA | Federal allocation (N million) | Annual salary bill (n million) | % allocated for primary school salaries |
|---|---|---|---|
| B/Gwari | 1,097 | 156 | 14.2 |
| Giwa | 891 | 160 | 17.9 |
| Soba | 938 | 172 | 18.3 |
| Ikara | 834 | 153 | 18.4 |
| Kudan | 685 | 133 | 19.4 |
| Makarfi | 752 | 150 | 19.9 |
| Igabi | 1,293 | 265 | 20.5 |
| Chikun | 1,239 | 295 | 23.8 |
| Kubau | 951 | 245 | 25.7 |
| Kagarko | 782 | 213 | 27.2 |
| Zaria | 1,120 | 311 | 27.7 |
| Karuru | 832 | 238 | 28.6 |
| Sabon | 964 | 282 | 29.3 |
| Sanga | 704 | 213 | 30.3 |
| Kachia | 936 | 290 | 31.0 |
| Jaba | 689 | 213 | 31.0 |
| Kajuru | 690 | 216 | 31.3 |
| Lere | 1,036 | 330 | 31.8 |
| Kaduna South | 1,327 | 462 | 34.8 |
| Kaduna North | 1,257 | 444 | 35.3 |
| Kaura | 740 | 264 | 35.6 |
| Jema'a | 895 | 331 | 37.0 |
| Zangon | 920 | 373 | 40.6 |
| LGA Total | 21,572 | 5,908 | 27.4 |
| *Inconsistency with SUBEB data* | *na* | *-1,548* | *na* |
| **TOTAL** | **21,572** | **4,360** | **20.2** |

**Note:** [1] Actual expenditures; [2] there is an inconsistency between sources on total LGA education expenditure on staff salaries. The SUBEB data shown in Table 2.9 is adopted.
**Source**: Ministry of Finance

[5] It is also the case that some LGAs have difficulty attracting qualified teachers.

service delivery provision are not enforced, as is the case in Kaduna State and nearly all other states in the country.

**Federal government funding**

30. Under the provisions of the UBE Act of 2004, the federal government now contributes directly to primary and junior secondary education. The Universal Basic Education Intervention Fund comprises equal matching grants by the federal and state governments.

31. In common with the majority of other states, quarterly disbursements from UBEC have been slower than expected. As at April 2007, N737 million, which is 71.1 percent of the total matching grant allocation for 2005 and 2006, had been disbursed. However, the overall disbursement rate for all 36 states has been considerably lower than this at 53.7 percent. The three main reasons for delays in releasing UBEC matching funds have been unacceptable quarterly action plans submitted by the states, unsatisfactory utilisation of previous UBEC funding, and delays by state governments in making available their counterpart funding in the prescribed manner.

**External funding**

32. Apart from the World Bank Universal Basic Education Project (UBEP), there have been no sizeable donor-funded activities in the education sector in Kaduna State since 2000. The World Bank project started in 2003, but was terminated early in 2006, in 2007 the new World Bank funded project SESP is starting and receives support from the DFID grant funded technical assistance: Capacity for UBE (CUBE).

## 2.3 INCOME GENERATION

33. With almost no MoE funding for learning materials and school running costs, most secondary schools are obliged to charge 'registration fees' for students. Table 2.6 shows that the bulk of income generation in the education sector is earned by secondary schools and that this source of income has grown very rapidly since 2000.[6] Primary education is free so public primary schools are very constrained in the amount of fees and other charges they can levy (see below). Total internally generated revenue (IGR) for higher and secondary education amounted to 7.8 percent and 20.5 percent respectively of total higher and secondary recurrent expenditure in 2005 (see Table 2.7).

[6] No income generation is recorded for primary schools. Most primary schools do collect small amounts in the form of 'CTA contributions'.

**Table 2-6: Revenue generated by schools and other educational institutions 2000/01-2004/05 (N millions)**

| | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|
| **Higher education** | | | | | |
| Kaduna State Scholarship Board | 0.5 | 0.5 | 0.7 | 9.8 | 1.4 |
| College of Education Kafanchan | 34.8 | 34.4 | 49.1 | 49.3 | 44.6 |
| Kaduna State University, Kaduna | 0 | 0 | 0 | 0 | 18.3 |
| Kaduna State Polytechnic Zaria | 59.1 | 51.4 | 29.2 | 57.8 | 110.3 |
| College of Nursing | 0 | 2.5 | 2.6 | 4.9 | 3.7 |
| School of Health Technology | 0 | 6 | 8.4 | 8.8 | 11.5 |
| **Sub-total** | **94.4** | **94.8** | **90.0** | **130.6** | **189.8** |
| **Secondary** | | | | | |
| Examinations | 10.5 | 29.7 | na | 84.9 | 68.2 |
| Secondary school fees day students | 25.5 | 0 | na | 0 | 0 |
| Secondary school-boarding fees | 7.2 | 96 | na | 87.6 | 29.8 |
| Other fees | 23 | 41.6 | na | 52.2 | 101.9 |
| **Total MoE fees** | **66.2** | **167.3** | **185.5** | **224.7** | **199.9** |
| School expenditure from retained revenue | 0 | 118.4 | 76.3 | 178.8 | 217.2 |
| Secondary schools (with Management Boards) | 13.3 | 13.7 | 13.4 | 33 | 90.4 |
| Science and Technical School Management Board | 33.5 | 63.6 | 93.1 | 115.6 | 221.2 |
| Kaduna Teaching Service Board | 0.2 | 0 | 0 | 0.3 | 0.5 |
| **Sub-total** | **113.2** | **363.0** | **368.3** | **552.4** | **729.2** |
| **Non-formal education** | | | | | |
| Agency for Mass Literacy | 0 | 0 | 0 | 0.1 | 4.7 |
| **Miscellaneous** | | | | | |
| Kaduna State Library Board | 0.5 | 0 | 0 | 0.2 | 0.1 |
| **Total** | **208.1** | **457.8** | **458.3** | **683.3** | **923.8** |

**Source**: Ministry of Finance, Annual financial statements

**Table 2.7: Internally generated income from secondary and HEIs as a percentage of total expenditure, 2001-2005, Kaduna State**

| | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|
| Secondary schools | 4.5 | 13.4 | 7 | 20.2 | 20.5 |
| Higher education institutions | 16.1 | 12.4 | Na | 7 | 7.8 |

**Source**: KSG Annual Financial Statements

## 2.4 EXPENDITURE

### Expenditure breakdown by type of education

34. The share of primary education in total public expenditure on education fell 10 percentage points - from 55 percent in 2000/01 to 45 percent in 2004/05. The share of secondary education increased marginally (from 32 to 33 percent) while the share of higher education increased sharply from 11 to 19 percent (see Table 2.8).

**Table 2-8: Breakdown of public expenditure by sub-sector 2000/01- 2004/05**

| Sub-sector | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|
| Primary | 59.2 | 54.7 | 60.5 | na | 48.5 |
| Secondary | 34.7 | 37.7 | 39.5 | 32.3 | 35.7 |
| Higher | na | na | na | na | 10.9 |
| Other | 6.0 | 7.5 | 0.0 | 67.7 | 4.9 |
| Total | 100 | 100 | 100 | 100 | 100 |

**Notes**: [1] Both recurrent and capital actual expenditure; [2] the composition of "other" varies, so comparisons between years can not be made

## Primary education

35. Recurrent expenditure on primary schooling has accounted for 60-70 percent of total recurrent expenditure for education between 2001 and 2005. The corresponding funding shares were 25-30 percent for secondary and only 5-10 percent for higher education during this period. In real terms, total expenditure on primary education in Kaduna State fell by 62.3 percent during this period (based on the national CPI).

**Table 2-9: Total (actual) expenditure on primary education in Kaduna State, 2001-2005 (N rounded millions)**

| Item and contributor | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|
| Personnel costs | 3,680 | 3,452 | 3,590 | 4,035 | 4,360 |
| Overhead costs | 80 | 126 | 169 | na | 325 |
| State capital expenditure | 551 | 339 | 242 | na | 158 |
| Education Trust Fund | 64 | 109 | 56 | 46 | 29 |
| **Total** | 4,375 | 4,025 | 4,058 | na | 4,872 |

**Source**: SUBEB

36. As elsewhere, overhead expenditure in primary schools has been well under 10 percent of total recurrent expenditure for this level of education. In the past, it was expected that local governments should allocate the equivalent of 10 percent of the primary school wage bill as a contribution to the running costs of primary schools. However, this is no longer the case. SUBEB makes only a small contribution to the overhead costs of LGEAs, most of which is absorbed by the LGEAs themselves (for their own personnel costs and running expenses). However, overhead expenditures increased appreciably in 2005 when the first tranche of UBEC funding became available. Annual capital expenditure by the state government on primary schools averaged only N323 million between 2001 and 2005 compared to N870 million for secondary schools.

## Secondary education

37. Table 2.10 summarises capital and recurrent expenditures for public secondary education in Kaduna State. The share of recurrent expenditure allocated to overheads increased appreciably from just six percent in 2001 to 14 percent in 2005. Nevertheless, the level of overhead funding remains seriously inadequate, particularly for non-board schools. In real terms, total expenditure on secondary education in Kaduna State fell by 21.6 percent during this period (based on the national CPI).

**Table 2-10: Total public expenditure on secondary education, 2000/01-2004/05 (N rounded millions)**

| Category | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|
| Teacher emoluments | 1,263 | 1,375 | 1,787 | 1,644 | 1,727 |
| Board school emoluments | 284 | 210 | na | 184 | 402 |
| Overheads | 75 | 100 | 115 | 35 | 90 |
| Board school overheads | 25 | 28 | na | 170 | 257 |
| Capital | 878 | 979 | 711 | 480 | 992 |
| MST Model schools capital | 0 | 0 | 0 | 110 | 82 |
| Board schools capital | 0 | 7 | 0 | 106 | 12 |
| Total | 2,526 | 2,700 | 2,613 | 2,729 | 3,562 |

**Note**: [1] All funding from MoE unless otherwise stated; [2] assumes na = 0 since suspect that boarding school emoluments and overhead are included in overall teacher emoluments and overheads
**Source**: Ministry of Finance

## Private funding of education

38. National accounts statistics are unavailable, which show the relative shares of public and private expenditure on education services. However, data collected for the NLSS in 2005 show that household expenditure per child attending government primary schools averaged N1,100 for both girls and N1,050 boys in 2005. The corresponding expenditures for children attending private primary schools are N5,010 for girls and N5,890 for boys (see Table 2.11). Unit household expenditures for public secondary schooling were N3,240 for girls and N5,000 for boys. At government secondary schools, uniforms, books and transport account for three-quarters of total expenditures for girls, but less than one-third for boys. Fees and PTA contributions were appreciably higher for girls than boys at government primary schools, but roughly the same at government secondary schools. Average expenditure on a child attending a private secondary school is twice as high for girls and 50 percent higher for boys than for a child studying at a government secondary school. Unlike primary education, no sizeable differences exist between unit expenditures for girls and boys attending private secondary schools (see Annex table 2.1).

**Table 2-11: Mean household cost of primary and secondary schooling, Kaduna State, 2005 (Naira)**

| | PUBLIC | | PRIVATE | |
|---|---|---|---|---|
| | **Female** | **Male** | **Female** | **Male** |
| **PRIMARY** | | | | |
| Total | 1,100 | 1,050 | 5,010 | 5,890 |
| Uniforms | 320 | 300 | 600 | 930 |
| Books | 200 | 200 | 670 | 810 |
| Transport | 20 | 170 | 260 | 170 |
| **SECONDARY** | | | | |
| Total | 3,240 | 5,000 | 6,820 | 7,320 |
| Uniforms | 1,650 | 560 | 1,280 | 1,400 |
| Books | 690 | 770 | 1,670 | 1,410 |
| Transport | 80 | 220 | 30 | 2,190 |

**Source**: NLSS 2005

39. The bottom quintile of households in the rural areas spent around half as much on education per student than the top two quintiles, and in urban areas less than a fifth of the amount. Apart from the lowest quintile, household expenditure on education is much higher in urban than rural areas (see Table 2.12).

40. On the basis of these household expenditure data, total private expenditure on primary and secondary schooling amounts to around N 0.49 billion per annum, which is only 4.7 percent of total (public and private) expenditure on education in 2005.

**Table 2-12: Mean household expenditure per student on education by expenditure quintile and location (Naira/annum)**

| QUINTILE | RURAL | URBAN |
|---|---|---|
| 1 | 1200 | 1080 |
| 2 | 1690 | 2350 |
| 3 | 1820 | 2630 |
| 4 | 2620 | 5840 |
| 5 | 1990 | 6170 |

**Source**: NLSS 2005

# 3. SCHOOL ENROLMENT AND ACCESS

41. The first section of this chapter review school enrolments. The second section outlines the overall levels of educational attainment. The third section presents the provision of education by the private sector, while the fourth section describes the available evidence with regard to access inequities for all three main levels of education.

## 3.1 ENROLMENT AND TRANSITION RATES

42. According to the EMIS, 1.1 million children were enrolled in primary and secondary schools in Kaduna State in 2004/05. A total of around 935,000, 109,000 and 69,000 children attended primary, junior and secondary schools respectively during this school year (see Table 3.1). Sixty-five percent of all primary school students are classified (by EMIS) as living in 'rural' areas.

**Table 3.1: Enrolments and GERs by level of schooling, gender, and ownership, 2004/05**

| KADUNA | ENROLMENTS | | | Of which: RURAL (%) | | | GROSS ENROLMENT RATIOS (%) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Male | Female | All | Male | Female | All | Male | Female | All |
| | **ALL** | | | **ALL** | | | **ALL** | | |
| Primary | 524,689 | 410,566 | 935,255 | 69.6 | 66.4 | 68.2 | 93.8 | 75.6 | 84.8 |
| JSS | 67,928 | 41,285 | 109,213 | 67.7 | 49.9 | 61.0 | 28.5 | 18.0 | 23.3 |
| SSS | 41,866 | 27,244 | 69,110 | 61.1 | 31.6 | 46.7 | 21.7 | 15.1 | 18.5 |
| **Total** | 634,483 | 479,095 | 1,113,578 | 68.8 | 61.9 | 65.8 | 64.0 | 50.3 | 57.3 |
| | **PUBLIC** | | | **PUBLIC** | | | **PUBLIC** | | |
| Primary | 485,769 | 373,446 | 859,215 | 72.1 | 69.4 | 70.9 | 86.8 | 68.8 | 78.0 |
| JSS | 65,359 | 38,652 | 104,011 | 69.4 | 52.5 | 63.1 | 27.4 | 16.8 | 22.2 |
| SSS | 39,677 | 25,070 | 64,747 | 63.5 | 33.1 | 48.7 | 20.5 | 13.9 | 17.3 |
| **Total** | 590,805 | 437,168 | 1,027,973 | 71.2 | 64.6 | 68.3 | 59.6 | 45.9 | 52.9 |
| | **PRIVATE** | | | **PRIVATE** | | | **POPULATION 2005** | | |
| Primary | 38,920 | 37,120 | 76,040 | 39.2 | 36.2 | 37.8 | 559,515 | 542,808 | 1,102,323 |
| JSS | 2,569 | 2,633 | 5,202 | 24.5 | 11.2 | 17.8 | 238,497 | 230,007 | 468,504 |
| SSS | 2,189 | 2,174 | 4,363 | 17.2 | 7.0 | 12.1 | 193,386 | 179,960 | 373,346 |
| **Total** | 43,678 | 41,927 | 85,605 | 37.2 | 32.9 | 35.1 | 991,398 | 952,775 | 1,944,173 |

**Source**: Education Databank, Federal Ministry of Education, 2006 Population Census

43. The most noticeable feature of the current attendance rate profiles for females and males is the sharp decline in enrolment levels once children reach 11-12 year olds. This is particularly marked among girls (see Figure 3.1).

44. Net and gross enrolment ratios for both primary and secondary schooling calculated from the two recent major household surveys (CWIQ and NLSS) are consistently much higher than the EMIS enrolment ratios (see Table 3.2), especially in secondary education level. ASC estimates are likely to be less accurate because they rely on population projections in order to estimate the size of the primary and secondary school age populations. In addition, not all schools are covered by the Census,[7] not all head teachers complete the questionnaire, and not all the information that is provided is accurate. Household survey estimates, on the other hand, are

[7] The EMIS team in Abuja estimate that, nationally, on average, only 63 percent of schools completed EMIS census forms each year between 2004 and 2006.

likely to be quite accurate because they are based on large national samples of households who report the actual attendance of household members in all types of education and training. For this reason, household survey enrolment ratios are often relied upon in this report. Over-age enrolment is the main reason why both primary and secondary GERs are so much higher than the corresponding net enrolment ratios (NERs). The CWIQ gross enrolment ratios for primary schooling are 97 percent for girls and 108 percent for boys and for JSS they are 61 percent and 74 percent respectively. They are almost the same for SSS (63 percent girls and 76 percent boys). Enrolment ratios for primary and secondary education in selected countries in sub-Saharan Africa are presented in Annex table 3.2.

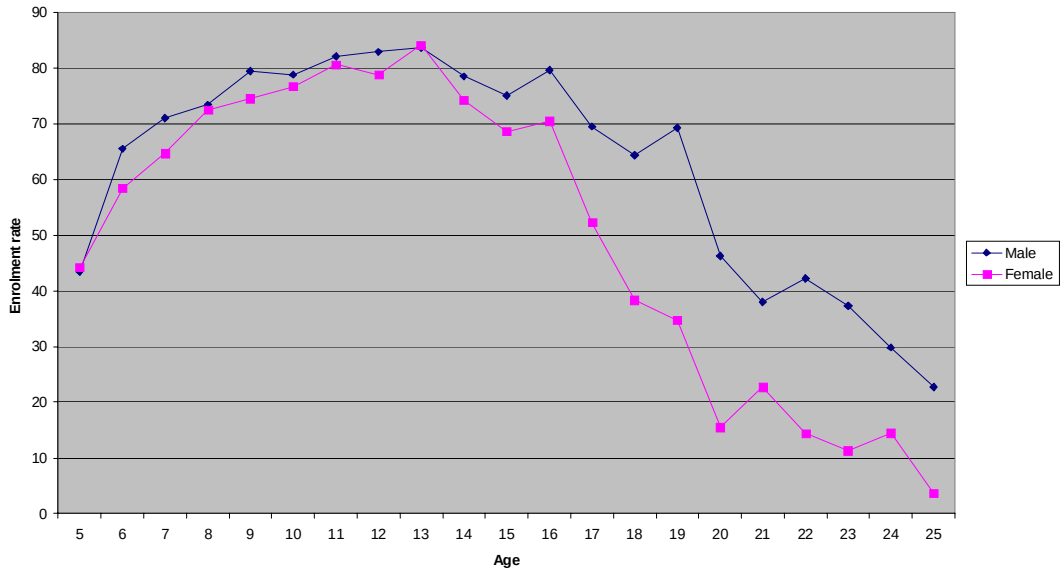
**Table 3.2: EMIS (2004/05) and CWIQ (2005/06) net and gross enrolment ratios for primary and secondary education, 2005/06**

| | PRIMARY | | JSS | | SSS | |
|---|---|---|---|---|---|---|
| | **CWIQ** | **EMIS** | **CWIQ** | **EMIS** | **CWIQ** | **EMIS** |
| **NERs** | | | | | | |
| Female | 64 | 63 | 23 | 10 | 24 | 8 |
| Male | 67 | 75 | 25 | 16 | 24 | 11 |
| **GERs** | | | | | | |
| Female | 97 | 76 | 61 | 18 | 63 | 15 |
| Male | 108 | 94 | 74 | 28 | 76 | 22 |

**Sources**: EMIS, CWIQ

45. For the age group 20-24, the transition rates for primary to junior secondary schools (PRY6 to JS1) are 85.5 percent for girls and 90.1 percent for boys. These are appreciably lower than the transition rates based on EMIS data. The transition rates among the same age group for

**Figure 3.1: Age-specific enrolment rates for females and males aged 5-25, 2006, Kaduna State**




**Source**: CWIQ

junior to senior secondary education (i.e. JS3 to SS1) are 87.7 percent and 90.8 percent respectively.[8]

[8] The EMIS transition rates from PRY6 to JJS1 are given as 42.9 percent for females and 43.6 percent for males, and from JSS3 to SSS1 they were 79.2 percent for females and 75.6 percent for males.

## 3.2 EDUCATIONAL ATTAINMENT

### Never-enrolled

46. CWIQ survey data for 2006 indicates that 34 percent of females and 17 percent of males aged 15-19 have never attended school (see Table 3.3). The corresponding figures for the age group 20-24 are 51.4 percent and 19.2 percent respectively, which shows that impressive progress has been made in raising school attendance rates among girls during the last decade. The main reason for non-attendance among the primary school age group is that children are 'too young'. Other factors such as distance to school and school costs do not appear to be major factors (see Annex table 3.1).

**Table 3.3: Educational attainment of 15-19 and 20-24 year olds by gender, Kaduna State, 2006**

| 15-19 | Never attended | Incomplete primary | Completed primary | Incomplete JSS | Completed JSS | Incomplete SSS | Completed SSS | Tertiary | Total |
|---|---|---|---|---|---|---|---|---|---|
| Female | 34.3 | 11.6 | 8.2 | 14.7 | 10.0 | 13.8 | 6.0 | 1.3 | 100 |
| Male | 17.3 | 17.3 | 9.5 | 19.2 | 9.8 | 18.6 | 7.4 | 0.8 | 100 |

| 20-24 | Never attended | Incomplete primary | Completed primary | Incomplete JSS | Completed JSS | Incomplete SSS | Completed SSS | Tertiary | Total |
|---|---|---|---|---|---|---|---|---|---|
| Female | 51.4 | 3.9 | 7.4 | 2.6 | 4.3 | 6.9 | 20.1 | 3.4 | 100 |
| Male | 19.2 | 3.8 | 7.6 | 5.1 | 5.9 | 17.0 | 32.6 | 8.8 | 100 |

**Source**: CWIQ, 2006

### Schooling attainment

47. According to CWIQ survey (Table 3.3), slightly more than 54 percent of females and 65 percent of males in the age group 15-19 have completed the six-year primary education cycle. Only 24 percent of females aged 20-24 have completed the full six-year secondary education cycle compared to 41 percent for the males in the same age group. The primary school completion rates among the age group 20-24 are 80 percent for females and 95 percent for males.[9] Junior secondary school completion rates are 93 percent for both females and males but, for senior secondary schooling, they are only 78 percent for females and 71 percent for males.

## 3.3 PRIVATE SECTOR PROVISION

48. EMIS data on the numbers of private schools and enrolments are far from complete. These schools nonetheless provide education service to a large number of pupils and students in the State particularly in the main urban areas. A thorough identification and documentation of these schools will invariably reveal that the total number of primary and secondary schools in the State and their respective enrolments are far more than the current official statistics of schools and enrolment.

49. According to the NLSS, non-government (i.e. religious, private and community) schools account for 22.0 percent of enrolments in the primary age group (6-11) and 18.3 percent in the secondary age group (12-17) (see Table 3.4).

[9] Not all children in the 15-19 age group have completed primary education.

**Table 3.4: Composition of enrolments by school ownership for age groups 6-11 and 12-17, 2005, Kaduna State (percentages)**

| | FEDERAL | STATE | RELIGIOUS | PRIVATE | OTHER |
|---|---|---|---|---|---|
| Age 6-11 | 0.5 | 77.3 | 2.2 | 18.0 | 1.8 |
| Age 12-17 | 5.8 | 82.3 | 2.1 | 13.7 | 2.5 |

**Source**: NLSS

## 3.4 ACCESS INEQUITIES

### Gender

50. The CWIQ survey indicates that, in aggregate terms, the difference in female and male GERs is 11, 14 and 13 percentage points for primary, JJS and SSS education respectively. The extent of gender enrolment disparities varies very considerably across the 23 local government areas, especially with respect to secondary schooling (see Annex table 3.2). Table 3.1 shows gender disparities in GERs according to EMIS, which are 93.8 per cent for male and 75.6 percent in primary, 28.5 percent for male and 18 percent for female in JS, 21.7 percent for male and 15.1 for female in SS.

### Income

51. Table 3.5 presents the percentage of individuals in the age group 15-19 who have never attended school disaggregated by household consumption quintile. Among the poorest 20 percent of households, nearly one half of females and one-fifth of males have never been to school. These figures for the richest 20 percent of households are 14 percent for females and seven percent for males, which are surprisingly high.

**Table 3.5: Never enrolled rates for the 15-19 age group by gender and household consumption quintile (percentages)**

| QUINTILE | FEMALE | MALE |
|---|---|---|
| 1 | 48 | 20 |
| 2 | 21 | 11 |
| 3 | 13 | 18 |
| 4 | 14 | 11 |
| 5 | 14 | 7 |

**Source**: CWIQ

### Parental status

52. Among primary and secondary school aged children, enrolment ratios for children whose mother is no longer alive are appreciably lower than for children who have both parents. However, the enrolment ratios for children whose father is dead are only slightly lower (see Table 3.6).

**Table 3.6: Gross enrolment ratios by parental status, 2006 (percentages)**

| PARENTAL STATUS | AGE 6-11 | AGE 12-17 |
|---|---|---|
| Both parents alive | 98.9 | 93.9 |
| Feather dead | 100 | 91.8 |
| Mother dead | 90.9 | 83.3 |

**Notes**: No information was collected on children who had lost both parents
**Source**: CWIQ

## Location

53. Gross and net enrolment ratios for primary school age children are appreciably lower in the rural areas than the corresponding rates for the urban areas (see Table 3.7). Transition rates from primary school to JSS and from JSS to SSS also vary markedly across LGEAs, which is also symptomatic of large locational variations in access to schooling (see Annex table 3.5).

**Table 3.7: Gross and net enrolment ratios for primary schooling by gender and location**

| Enrolment ratio | RURAL | | | URBAN | | |
|---|---|---|---|---|---|---|
| | Female | Male | All | Female | Male | All |
| GERs | 64 | 84 | 74 | 109 | 97 | 103 |
| NERs | 53 | 69 | 61 | 92 | 92 | 92 |

**Source**: NLSS

54. It is not possible to derive accurate rural and urban enrolment ratios for secondary education.[10] However, rough estimates for junior secondary education can be calculated from the NLSS. These suggest that there are sizeable differences in gross enrolment ratios between the rural and urban areas of the state, particularly with respect to girls (see Table 3.8)

**Table 3.8: Ever-attended net and gross enrolment ratios for junior secondary schooling by gender and location, 2005 (rounded percentages)**

| | NER | | GER | |
|---|---|---|---|---|
| | Female | Male | Female | Male |
| URBAN | 59 | 67 | 82 | 88 |
| RURAL | 18 | 32 | 28 | 49 |

**Source**: NLSS

55. While non-attendance is clearly linked with poverty, it is noticeable that 26 percent of young women aged 15-19 who are members of the richest 20 percent of rural households and 10 percent in the same group in the urban areas have never attended school (see Table 3.9). Cultural and social factors, which cut across differences in income and wealth are, therefore, likely to be major factors. In the urban areas, all children in the 60 percent of poorest households are reported to have attended school.

[10] This is due to problems with the coding and data entry of secondary schools with the NLSS. Very high percentages of respondents have been coded as having attended lower six and upper six education, which is not the case in Kaduna State.

**Table 3.9: Never attended school among 15-19 year-olds by gender, location and household consumption quintiles (rounded percentages)**

| | RURAL | | URBAN | |
|---|---|---|---|---|
| **QUINTILE** | **FEMALE** | **MALE** | **FEMALE** | **MALE** |
| 1 | 63 | 27 | 0 | 0 |
| 2 | 33 | 26 | 0 | 0 |
| 3 | 19 | 25 | 0 | 0 |
| 4 | 38 | 17 | 10 | 9 |
| 5 | 26 | 21 | 20 | 0 |
| Overall | 31 | 23 | 10 | 3 |

**Source**: NLSS 2005

## Disability

56. According to CWIQ household survey data, 1.0 percent of children aged 7-12 and 0.6 percent between 13 and 18 are 'handicapped', either mentally or physically. The differences in enrolment ratios between disabled and non-disabled children are six percentage points for the 7-12 age group and eight percentage points for the 13-18 age group. Further research is needed to assess in greater detail the patterns of school attendance as well as the learning needs and outcomes among this group.

# 4. RESOURCE UTILISATION

57. This chapter reviews resource deployment and efficiency issues in the delivery of educational services in Kaduna State. The extent to which educational resource inputs are utilised efficiently can only be properly assessed in relation to a standard unit of educational output, which is based on both quantitative (enrolment and grade attainment) and qualitative (learning outcome) indicators. However, assessments of the overall cost effectiveness or productivity of educational service delivery are rarely undertaken in developing countries, due mainly to data limitations. The same constraints apply to Kaduna State. Consequently, the following discussion focuses on the standard input efficiency parameters in relation to both human resources (teaching and support staff including managers), and physical resources (classrooms and other infrastructure and operational inputs). In addition, unit cost estimates are presented and the available evidence on educational outcomes (in particular repetition and completion rates and examination results) is assessed. Resource utilisation issues in higher education institutions are dealt with separately in the next chapter.

## 4.1 TEACHING AND SUPPORT STAFF

58. The availability, competence and commitment of teaching and support staff are of paramount importance in ensuring that educational services are delivered efficiently and effectively.

**Teacher numbers**

59. There were 28,769 primary school teachers on the SUBEB payroll in December 2005. A total of 6,680 teachers were employed in public secondary school teachers in the same year (see Annex tables 4.1-4.3). Despite the official freeze on new civil service posts, the number of primary school teachers employed at public primary schools almost doubled between 2000 and 2005. According to the ASC, enrolments at public primary schools increased by only 11 percent during this period, which is probably a serious under-estimate. However, on the basis of the ASC figures, the pupil-teacher ratio fell from 57:1 in 2001 to 33:1 in 2005. The total number of secondary school teachers increased by 27 percent (from 5,241) between 2001/02 and 2004/05. Enrolments during the same period increased by 28 percent (from 191,000 to 244,100) so the pupil-teacher ratios have remained virtually unchanged at 37:1.

60. Only 42 percent and 31 percent of teachers at primary and secondary schools respectively were women in 2004/2005. The share of women teachers at primary schools was 44 percent in 1999. The employment policy of not separating married women from their spouses means that female teachers are heavily concentrated in the major urban centres, which hampers gender and education objectives in rural areas. For example, 50 percent of secondary school teachers in the Kaduna Division are women compared to only seven percent in Anchau Division. In six LGAs, there were fewer than 30 percent female teachers in primary schools (see Annex table 4.4)

**Teacher competence**

61. The qualification profile of the teaching force is the most commonly used indicator of teacher competence. Currently, 42 percent of secondary school teachers are university graduates

and another 44 percent are NCE holders (see Table 5.3). Only 37 percent of teachers at government primary schools were fully qualified (i.e. possessed NCE or university education degree or post-graduate teaching diploma) in 2004/05 (see Table 4.1). Only 39 percent of teachers at private primary schools were qualified in 2004/05 and 56 percent at secondary schools. In nine LGAs, less than 30 percent of teachers in public primary schools were qualified in 2005 (see Annex table 4.5).

62. The overall pupil-qualified teacher ratios are 90, 72 and 56 for public primary and junior and senior secondary schools respectively. Again, these ratios vary considerably across the LGAs (see Annex table 4.6).

**Table 4.1: Teacher qualification profile by level of education and gender, 2005 (percentage breakdown)**

| QUALIFICATION | FEMALE | MALE | ALL |
|---|---|---|---|
| **PRIMARY** | | | |
| Graduate with teaching qualification | 2.4 | 2.2 | 2.3 |
| Graduate without teaching qualification | 1.3 | 1.6 | 1.4 |
| NCE | 41.0 | 31.3 | 36.1 |
| Diploma | 5.1 | 7.8 | 6.5 |
| Grade II | 29.8 | 25.1 | 27.5 |
| Others | 20.4 | 32.0 | 26.2 |
| Total | 100.0 | 100.0 | 100.0 |
| **SECONDARY** | | | |
| Graduate with teaching qualification | 36.0 | 33.6 | 34.8 |
| Graduate without teaching qualification | 15.1 | 15.3 | 15.2 |
| NCE | 43.4 | 40.5 | 41.9 |
| Diploma | 3.8 | 8.7 | 6.2 |
| Grade II | 0.3 | 0.2 | 0.3 |
| Others | 1.4 | 1.7 | 1.6 |
| Total | 100.0 | 100.0 | 100.0 |

**Notes**: The 'Others' category includes Grade I, HSC/GCE A' level, Special Teachers and WASC/GCE 'O' level/SSCE
**Source**: EMIS

## Teacher motivation

63. Low and declining motivation among teachers at government schools in Kaduna State is a major concern amongst teachers themselves, their managers and other key stakeholders including parents, politicians and senior officials of the National Union of Teachers.

64. The overall level of commitment of teachers to their work is the outcome of the complex interplay of a variety of intrinsic and extrinsic factors. It is widely accepted that pay, in particular for young teachers who have recently qualified, is seriously inadequate. This is despite the fact that the average monthly gross income of a primary school teacher increased threefold (from N4,680 to N14,230) between 1999 and 2005, which, in real terms, is an increase of 36.6 percent. Primary school teacher salary level is on average around 2.2 as multiple of national GDP per capita, which is very low as compared with other Sub-Saharan African standards (cf. EFA FTI indicative benchmark is 3.5). For most teachers, their pay does not cover more than half of monthly requirements. Consequently, many teachers are forced to find additional income earning opportunities, which can have a serious impact on their overall motivation.

65. As civil servants, both primary and secondary school teachers receive the same pay and other conditions of service as other state government employees. By African country standards, career advancement opportunities are relatively good. Grade promotions up to Grade level (GL)

14 take place every three years subject to satisfactory performance.[11] The top (gross) salary of a head teacher with around 30 years of experience is N, which is nn times the starting salary of a graduate teacher. However, promotion opportunities are very limited for Grade II teachers.

66. Three-quarters of teaching and non-teaching staff are on grades 7 to 14. A total of 147 teachers are on GL 15 and 39 on GL 16. The placement of teaching staff on GL 16 enables allows teaching staff to rise to the highest level in the career hierarchy of the civil service.

67. Although teacher motivation is low, annual attrition (deaths, resignations, retirements, dismissals) is reported to be minimal mainly because alternative employment opportunities for teachers are so limited. There is some mainly anecdotal evidence that the AIDS epidemic has begun to impact on teachers with respect to either morbidity or mortality. The HIV infection rate among adults aged 15-49 was estimated to be 8.0 percent in 2005 in Kaduna State (based on ante-natal clinic sampling).

**Teacher deployment**

68. The deployment of teachers across the 3700 or so government schools in Kaduna State is neither efficient nor equitable. Qualified and more experienced teachers are concentrated at urban schools, which tend to be over-staffed. By contrast, schools in rural areas face major problems in attracting and retaining adequately qualified and experienced teachers. In the six most remote LGEAs, fewer than 30 percent of all primary school teachers are female.

69. Figures 4.1 and 4.2 show the scatter plots of teachers and enrolments at primary and secondary schools in Kaduna State. What is striking is the wide dispersion of teachers employed at schools with the same number of students. The lack of consistent adherence to staffing norms is a key reason for this. There is no statistically significant correlation between school enrolments and the number of teachers working at these schools and the adjusted R-squared value is 0.303.

**Teacher workload**

70. The standard internal efficiency parameters with regard to teacher utilisation are presented in Table 4.2. The average pupil-teacher ratio (PTR) was around 33, which is very lower than the national norms. The reported overcrowded classes (average class size at around 70) might indicate low rate of teaching loads for a great number of teachers as compared with the recommended 39 periods per week.[12] The average number of periods per week in junior and senior secondary schools are, however, much lower at only 21 and 15 periods respectively.

[11] Civil servants have to serve four years on Grades 14 and 15 before they are eligible for promotion.

[12] According to ASC data, the average number of periods for primary and secondary school teachers in both rural and urban locations in Kaduna State was 25-26 per week.

**Figure 4.1: Scatter plot of enrolments and teachers at primary schools in Kaduna State, 2005**

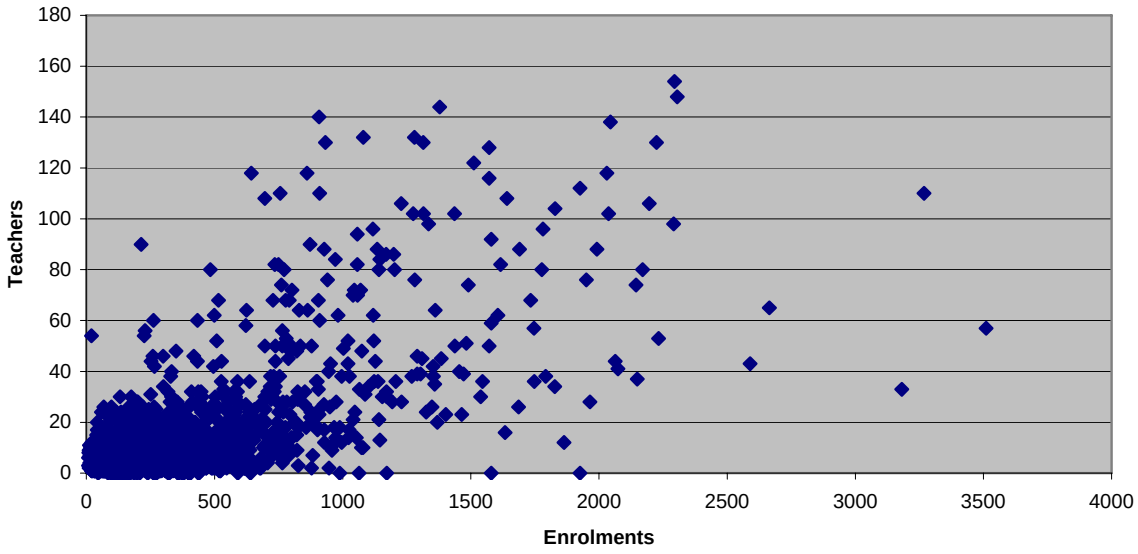


**Table 4.2: Internal efficiency indicators for primary and secondary schooling, Kaduna State, 2004/05**

| | PRIMARY | | | JSS | | | SSS | | |
|---|---|---|---|---|---|---|---|---|---|
| **RATIOS** | **Public** | **Private** | **All** | **Public** | **Private** | **All** | **Public** | **Private** | **All** |
| Student-teacher | 33.5 | 17.8 | 31.3 | 57.2 | 15.7 | 50.8 | 43.7 | 14.5 | 38.8 |
| Student-qualified teacher | 90.2 | 45.8 | 83.6 | 71.5 | 28.1 | 66.6 | 56.6 | 25.1 | 52.7 |
| Student-classroom | 95.2 | 28.9 | 80.2 | 86.8 | 32.9 | 80.5 | 63.7 | 29.1 | 59.3 |
| Student-core textbook | 3.5 | 3.8 | 3.5 | 10.3 | 14.2 | 10.5 | 13.9 | 15.1 | 14.0 |
| Teacher-classroom | 2.8 | 1.6 | 2.6 | 1.5 | 2.1 | 1.6 | 1.5 | 2.0 | 1.5 |

Source: EMIS

71. Detailed research is needed in order to identify the reasons for what appears to be quite serious over-staffing at primary schools. Possible explanations include low teaching loads, flawed statistics, high proportions of small schools, and large numbers of non-existent 'ghost' teachers.

72. The pupil-classroom ratio at public primary schools was 95.2 students in 2004/05, which seriously affects the learning environment[13]. Furthermore, ASC data indicate that there are some classes, which have no classrooms allocated. In four out of 23 LGEAs, pupil-classroom ratios exceed 150 (see Annex table 4.7). Urban primary schools are particularly congested. The student-classroom ratios for public junior and senior secondary schools are 86.8 and 63.7 respectively, which again are very high.

73. As said earlier, according to ASC data, overall pupil-teacher ratios (PTR) were 33:1 for public primary schools in 2004/05 (considerably below the prescribed national target norm of 40), The PTR for public primary schools was less than 25 in five LGAs (see Annex table 4.8). PTRs for primary schooling in Kaduna State are also low relatively compared to West African countries (see Annex table 4.9). Even so, the MoE estimates that another 5,400 additional teachers are needed for more effective delivery of primary education. PTRs for JSS are 57:1 and 43:1 for SSS.

### Non-teaching staff

74. According to MoE data, the overall teacher to non-teaching staff ratio is 24:1 for public primary schools, but 4:1 for public secondary schools. The considerable variation in these ratios that prevails across the 16 LGEAs (see Annex table 4.10) would not occur if standardised staffing norms were uniformly adhered to.

## 4.2 INFRASTRUCTURE AND LEARNING RESOURCES

### School size

75. Government primary and secondary schools are generally quite small in Kaduna State, which has major implications for resource utilisation and efficiency. Average student enrolment at primary schools is less than 300 in 14 out of 23 LGEAs (see Table 4.3). Private schools are even smaller. Rural schools have much larger geographical catchment areas with low population densities. Consequently, schools tend to be much smaller than in urban areas.

[13] Around 11 percent of primary schools double shift in Kaduna so the actual student classroom ratio is somewhat lower than this aggregate figure. 22 percent of secondary schools double shift.

76. Unit costs tend to be much higher at small schools. The mean pupil-teacher ratio is only 10 at public secondary schools with less than 250 students, but is 21 at schools with 251-500 students, 34 at schools with 501-750 students, and 42 at schools with more than 1000 students. Given that staff costs account for 80-90 percent of total recurrent costs, this means that recurrent expenditures per student are four times higher at the smallest schools compared with the largest.

**Table 4.3: Average school size (enrolments) by LGEA and school ownership 2005**

| | | <100 | 101-200 | 201-300 | 301-400 | 401-500 | 501-750 | 751-1000 | 1000> | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| **PRIMARY** | Public | 0 | 7 | 7 | 3 | 2 | 1 | 3 | 0 | 23 |
| | *Percent* | *0* | *30* | *30* | *13* | *9* | *4* | *13* | *0* | *100* |
| | Private | 1 | 10 | 9 | 0 | 1 | 2 | 0 | 0 | 23 |
| | *Percent* | *4* | *43* | *39* | *0* | *4* | *9* | *0* | *0* | *100* |
| **JSS** | Public 1 | | 1 | 2 | 5 | 5 | 5 | 2 | 0 | 21 |
| | *Percent* | *5* | *5* | *11* | *24* | *24* | *24* | *11* | *0* | *100* |
| | Private | 5 | 5 | 1 | 1 | 0 | 0 | 0 | 0 | 12 |
| | *Percent* | *42* | *42* | *8* | *8* | *0* | *0* | *0* | *0* | *100* |
| **SSS** | Public 1 | | 2 | 3 | 4 | 5 | 2 | 2 | 2 | 21 |
| | *Percent* | *5* | *10* | *14* | *19* | *24* | *10* | *10* | *0* | *100* |
| | Private | 6 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 12 |
| | *Percent* | *50* | *33* | *17* | *0* | *0* | *0* | *0* | *0* | *100* |

Source: ASC 2005

### Classrooms and other school buildings

77. Despite some improvements in recent years, classroom accommodation for the large majority of students at both primary and secondary government schools remains seriously sub-standard. Classrooms are seriously congested, especially in urban areas where shortages of classrooms mean that there are frequently more than one hundred students in each classroom. Desks and other classroom furniture are also totally inadequate in most schools with four-five children cramped together on a two-seater bench and many others sitting on the floor. According to EMIS, around one-third of government primary school classrooms are in need of 'major repair' and one-quarter of secondary school classrooms (see Annex table 4.11).

78. Other physical facilities such as toilets, laboratories, and libraries also in short supply, and consequently, there is substantial pressure on their use. The condition of these facilities is generally very poor. Out of a total of 283 secondary schools in the state, there are only 62 physics, 63 chemistry and 39 biology laboratories, over half of which are located in the Kaduna school division. The 79 technical workshops and 84 schools libraries are, however, fairly evenly distributed among the schools divisions in the State.

79. There were about 577 classes operating without classrooms[14]. The MoE estimates that an additional 2454 classrooms are required in the state in order to create a more conducive teaching environment. Currently, the shortages and the requirement for additional classrooms are fairly evenly spread across all the school divisions.

80. The state government has clear policies and practices with regard to the construction of new buildings. The Ministry of Works and Transport is responsible for all new government building projects in the State, including all buildings for tertiary, secondary and primary education. So far, this department has been involved in all new constructions in the State's educational institutions, from the design to the construction stages, and they have confirmed that they are satisfied that new school buildings or other facilities in the educational institutions meet professional standards. In any case, they have to confirm the quality of any work done before it is taken over from the contractor. Supervision regarding the use of physical facilities is under the mandate of the Inspectorate Division of the State MoE, which has been organised on a school district (division) structure.

[14] Presumably, most of these classes are conducted outdoors.

### Learning materials

81. Given the very limited overhead funding of primary and secondary schooling in the state, textbooks and other essential learning materials are in chronically short supply, which seriously impacts on the overall effectiveness of schooling provision. It is MoE policy that each primary school student should have exclusive use of the four core subject textbooks, which is equivalent to a student-book ratio of 0.25. The actual ratio is 3.5, which is over 14 times higher than this norm. The allocation of 15 percent of UBE intervention funds (since 2005) to 'learning materials' should (if properly managed) lead to a considerable improvement in the overall availability of core subject textbooks in primary schools in the state.

82. The textbook situation is worse in junior and senior secondary schools with student-textbook ratios of 10.3:1 and 13.9:1 respectively. Students are expected to buy their own textbooks, but the most are too poor to buy even one book. Serious shortages are commonplace of other key learning materials and consumables.

83. Again, the availability of textbooks varies markedly among the 44 LGEAs in the state, especially among secondary schools (see Annex table 4.12).

## 4.3 EDUCATIONAL OUTPUTS

### Student repetition

84. The large numbers of students repeating grades is one of the principal reasons for low schooling efficiency in many developing countries. However, only four percent of primary and three percent of secondary school students in Kaduna State were repeaters in 2004/2005, which rather is low compared to student repetition rates in other countries in the region (especially Francophone countries) and many of the rest of sub-Saharan Africa. However, late-entries into primary schools result in relatively large numbers of over-aged students (14.3 percent in rural and 18.0 percent in urban areas).

85. Repetition rates do though vary appreciably between LGEAs (see Annex table 4.13). The reasons for this require further investigation. Repetition rates are broadly similar at private schools and gender differences are minimal.

### Cohort survival

86. Given prevailing levels of poverty and the paucity of attractive employment opportunities for school leavers, dropout rates among both primary and secondary school students are surprisingly low. According to EMIS, withdrawal rates were 1.4 percent for students at government primary schools in 2004/05 and around 1.5 percent for secondary schools (with only small gender differences). However, educational attainment data for 20-24 year olds indicate that primary school survival rates are 82 percent for females and 79 percent for males. The corresponding rates for JSS are 68 percent and 66 percent. These are appreciably lower for SSS (35 percent for females and 31 percent for males). Survival rates do not vary significantly between LGEAs. CWIQ data show that the three main reasons for dropping out of school are 'useless/uninteresting', 'got married', and 'expense'.

87. Although survival rates are high for basic education, around one-half of CWIQ survey respondents indicated that their children were not satisfied with their schooling. Lack of books and poor facilities are the two most cited reasons for dissatisfaction (see Annex table 4.14)

**Examination results**

88. The performance of secondary school students in Kaduna State in the NECO/WASSCE examinations is very poor. In 2005, only 2.0 percent of candidates passed with at least five credits including both English and mathematics.[15]

## 4.4 PUBLIC EXPENDITURE PER STUDENT

89. Public expenditure per student was N5, 319 at government primary schools and N11, 000 for secondary schools in 2005. The corresponding figure for higher education institutions are presented in Chapter 5.

[15] National figures for WASSCE and NECO examinations could not be obtained.

# 5. HIGHER EDUCATION

90. This chapter focuses on enrolments, public expenditure, and resource utilisation in the higher education sector in Kaduna State. The discussion comprises the following sections: a brief description of higher education provision, the higher education policies of the state government, student enrolments, funding and expenditure, and resource utilisation. Federally-funded education and training institutions and activities are not included in this analysis.

## 5.1 HIGHER EDUCATION PROVISION

91. There are six state-level higher education institutions in Kaduna State:

**Ministry of Education**

- State University, Kaduna
- Nuhu Bamalli Polytechnic, Kaduna
- College of Education, Kafanchan

**Ministry of Health**

- Shehu Idris College of Health Science and Technology, Makarfi
- College of Nursing and Midwifery, Kafanchan.

**Head of Service**

- Staff Development Centre, Kaduna

92. All the higher educational institutions (HEI) under the Ministry of Education enjoy autonomous status. They are, therefore, at liberty to generate revenue and incur expenditures in line with state government guidelines. However, the training institutions under the Ministry of Health are treated as ministry departments and thus have virtually no organisational autonomy.

93. KSG does not have a well-defined policy framework for higher education. Nor is any systematic human resource planning undertaken, which would provide a sound basis for the allocation of resources to each HEI as well as for specific occupational specialisations. The current pattern of enrolments at the two largest HEIs, namely the Polytechnic and the College of Education, does not correspond with either the government's priority objectives with regard to human resource development nor labour market needs. The Polytechnic was originally established to train high and middle-level technical personnel, particularly in agriculture and engineering-related subject areas. However, less than 20 percent of students are currently taking these courses. With regard to training, graduate outputs from the College of Education greatly exceed the effective demand for teachers in the public and private sectors. In late 2006, the Teaching Service Board received 6,000 applicants from NCE and university graduates for 2000 new teaching positions. Given the paucity of jobs in the state, teaching is one of the few areas where graduates have some chance of finding training-related employment.

94. The government has a policy of free (or very low cost) education for all. At the same time, however, all the HEIs are expected to generate a sizeable proportion of their operational funding requirements, which means that they have to charge student fees.

95. The State Scholarship Board provides non-repayable, non-means tested bursaries for all HEI 'indigene' students from the state, who are attending institutions both in and outside the state. The number of bursary holders grew from 5,200 in 1999/2000 to 36,000 in 2004/05- a seven-fold increase. During this period, total expenditure on bursaries increased 20-fold from N38.2 million to N776.2 million. The average bursary awarded was N21,560 in 2004/05. The gender breakdown of bursary awards is not available. It appears that only 20 percent of bursaries are in science, medical, engineering and related subjects. However, since half of all bursaries are classified as 'other', it is possible that this percentage could be higher. No post-graduate students or students studying overseas are supported.

96. KSG also encourages staff development for public servants through both full time in-service sponsorships, while a significant number of officers pursue a variety of professional courses on a part-time basis at Ahmadu Bello University and state-level HEIs.

## 5.2 ENROLMENTS AND ACCESS

### Enrolment and transition rates

97. Data from the 2006 CWIQ survey for Kaduna State show that net enrolment ratios for post-secondary education (based on the standard age cohort for this category of education of 18-20) are currently only 3.5 percent for females and 6.0 percent for males.[16] However, gross enrolment ratios are considerably higher (11.1 percent for females and 30.4 percent for males,)[17] which is a reflection of the relatively old age profile of higher education students. Enrolments are heavily weighted towards polytechnic/professional and university education and training with small shares for 'vocational' and technical education (see Table 5.1).

**Table 5.1: Percentage breakdown of type of students undertaking post-secondary education and training, 2006**

| TYPE OF EDUCATION/TRAINING | FEMALE | MALE |
|---|---|---|
| Teacher training college | 14 | 16 |
| Vocational | 3 | 1 |
| Technical | 1 | 0 |
| Polytechnic/professional studies | 58 | 51 |
| First degree | 18 | 30 |
| Higher degree | 6 | 3 |

**Source**: CWIQ

98. Transition rates from senior secondary to higher education among the 20-24 age-group are 13.9 percent for females and 21.3 percent for males.

### Enrolments

99. Around 26,000 students were enrolled at the five main HEIs in 2005/06. Enrolments at some HEIs have increased very rapidly, while at others, enrolments have increased relatively

[16] These enrolment ratios include enrolments in both public (federal and state) and private HEIs.

[17] Nearly 51 percent of males and 41 percent of females aged 20-24 were reported to be currently attending post-secondary education and training institutions,

little over the last five years. As noted earlier, enrolments at the College of Education are excessive both in relation to training capacity and labour market demand for teachers. Kaduna State University was only established in 2004 so enrolments are still quite small.

100. A total of 14,910 students (9,818 full-time and 5,092 part-time) were studying at the Nuhu Bamali Polytechnic in 2003/04. The bulk of the students are in arts and management related courses, especially among part-time students. Enrolments in the core higher national diploma and national diploma (including pre-diploma) courses have increased from just under 3, 000 in 1998/99 to almost 7, 000 in 2004/05. Most of this increase is accounted for an apparent surge in enrolments in the pre-diploma management and science courses in 2001/02.[18] The percentage of females studying for higher national diploma (HND) and national diploma (ND) courses has declined from 41 percent in 1998/99 to 33 percent in 2004/05.

101. The College of Education enrolled 8,396 students in 2004/05. The breakdown by school was as follows: Arts and Social Sciences 2,672, Languages 1, 484, Science 1,644, and Vocational and Technical Education 2,596. With the exception of vocational and technical education, student intakes for the main courses at the College have expanded rapidly since 1998/99.

102. A total of 498 students (35 percent female) enrolled as the first intake at the newly established Kaduna State University in 2005. There were 600 nurse and midwifery trainees at the School of Nursing in 2004/05. Enrolments have fluctuated quite markedly since the late 1990s, ranging from 1,001 in 1999/2000 to only 318 in 2001/2002. Every year, between 1,000 and 2,000 public servants enrol on computing, secretarial and accounting courses at the Staff Development Centre.

### Access inequities

103. In overall terms, around 40 percent of higher education students are female. However, women are still mainly concentrated in relatively few occupational areas, most notably teaching and nursing, which are traditionally female dominated. As expected, students from the richest households account for a disproportionately large share of enrolments at HEIs. Table 5.2 shows that 80 percent of students attending polytechnics/professional colleges and universities come from the richest 40 percent of households in Kaduna State. No students from the poorest 20 percent of households are attending these institutions.

**Table 5.2: Enrolment at polytechnic/professional and university for age group 20-29 by household consumption quintile, 2006**

| QUINTILE | NUMBER | % |
|---|---|---|
| 1 | 0 | 0 |
| 2 | 7 | 18 |
| 3 | 1 | 2 |
| 4 | 16 | 40 |
| 5 | 16 | 40 |

**Source**: NLSS

[18] The credibility of this data may, therefore, be questionable.

## 5.3 FUNDING

### The budget process

104. As noted earlier, state-level HEIs enjoy a large degree of operational and financial autonomy. The total budget subvention for the higher education sector is determined after the various institutions have prepared and defended their budget proposals at the Ministry of Education. In the absence of a comprehensive and clearly defined state policy and strategy for higher education in the state, the budget proposals largely emanate from the divergent needs and requirements of each HEI. Large divergences exist between approved and actual budgets for all the HEIs.

### Revenue sources

105. The two main sources of income for HEIs are state government annual subventions and their own internally generated revenue. Since state subventions only cover salary costs, HEIs have to generate all their own income to meet overhead (running) costs. The ability to generate internal revenue varies considerably among the HEIs. Whereas the Polytechnic is in a good position to tap into relatively lucrative training markets in management and computing, the scope for part-time courses is quite limited at the other HEIs. All HEIs are also severely constrained in the level of tuition fees and other charges that they can levy for full-time students mainly because the ability to pay of students is limited coupled with the state government's policy of free education.

106. N8,900 at the Polytechnic, N21,100 at the state university, and N5,300 at the School of Nursing in 2004/05. The level of fee arrears is reported to be small. Given these relatively low fees/charges, internally generated income accounts for only 10-25 percent of total revenue at the HEIs (see Table 5.3). Nonetheless, the necessity to earn income from student fees can seriously alter enrolment patterns. This is particularly the case at the Polytechnic where management courses, which have the greatest earning potential, now account for well over half of all enrolments. The College of Education also offers 'pre-NCE' courses to school leavers who do not have the requisite five credit passes in the NECO/WASSCE examinations.

107. At the Polytechnic, internally generated revenue fell from 28.1 percent of total income in 2000/01 to 13.3 percent in 2004/05. It subsequently increased to 24.7 percent in 2005/06 as the Polytechnic embarked on a concerted drive to increase IGR.

**Table 5.3: Internally generated revenue as percentage of total income, 2000/01-2004/05 (N million)**

| INSTITUTION | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|
| College of Education | 15.2 | 15.1 | 18 | 15.3 | 14 |
| State Polytechnic | 28.1 | 18.3 | na | 13.3 | 24.7 |
| State University | 0 | 0 | 0 | 0 | 11 |
| School of Health Technology | 0 | 6 | 8.4 | 8.8 | 11.5 |
| School of Nursing | 17.8 | 17.8 | 20.4 | 14.5 | 19.6 |

Source: Institutional records

**Note**: There are inconsistencies between the amount of IGR reported by HEI records and the amount recorded by the Ministry of Finance (Table 2.6). It is unclear whether this is due to mis-reporting or something else, however, with the exception of 2005, the differences are small.

108. All the HEIs are in urgent need of additional funding. Unless the level of funding is improved, the institutions will come under increasing pressure to increase registration fees and/or further expand student intakes. These options, however, would require that the state

government revises its policy of free education and/or significantly increase funding for the State Scholarship Board. Higher fees would further restrict access to HEIs by children from poorer households and further sizeable increases in enrolments would almost certainly lead to lower quality of outputs.

## 5.4 EXPENDITURE

### Recurrent expenditure

109. Funding for key consumables and other overhead costs is seriously inadequate at all the HEIs. The adverse impact on the quality of training is particularly marked in science and technical courses, which require significant inputs for experiments and practicals. State support for HEI overheads has been generally confined to providing one-off funding to meet the costs of course accreditation and for examinations. However, little attention is paid to teaching, library and practical materials. This makes the rituals of examination and accreditation more paramount than the actual teaching and training, thereby compromising the whole essence of learning.

110. Tables 5.4 and 5.5 summarise the recurrent expenditure of the five main HEIs since 2001. Overhead expenditure per student was only N4,830 at the College of Education in 2004/05. Except for the state university (which is atypical due to it only having opened in 2004), overheads account for 15-40 percent of recurrent expenditure at the HEIs.

**Table 5.4: Recurrent expenditure at higher education and training institutions, 2000/01-2004/05 (N rounded millions)**

| | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|
| **EMOLUMENTS** | | | | | |
| Kaduna State Scholarship Board | 5 | 5 | Na | 8 | 9 |
| College of Education | 114 | 166 | 236 | 262 | 263 |
| Kaduna State University | 0 | 0 | Na | 3 | 58 |
| Kaduna State Polytechnic | 146 | 176 | Na | 273 | 273 |
| College of Nursing | 6 | 11 | Na | 12 | 13 |
| School of Health Technology | 21 | 29 | Na | 28 | 37 |
| **Sub-total** | **292** | **387** | **Na** | **586** | **653** |
| **OVERHEADS** | | | | | |
| Kaduna State Scholarship Board | 46 | 53 | Na | 232 | 244 |
| College of Education | 32 | 40 | 48 | 52 | 55 |
| Kaduna State University | 0 | 0 | Na | 8 | 58 |
| Kaduna State Polytechnic | 32 | 51 | Na | 52 | 104 |
| College of Nursing | 4 | 10 | Na | 8 | 8 |
| School of Health Technology | 10 | 9 | Na | 16 | 16 |
| **Sub-total** | **124** | **163** | **Na** | **368** | **485** |
| **TOTAL** | **416** | **550** | **Na** | **954** | **1138** |

**Note**: [1] Triangulation with the data in Tables 2.3, 2.6, 2.9 and 2.10 indicates that there must have been funding in addition to that recorded from the state government and IGR in order to fund the level of expenditure here and in Table 5.6 - all or part of this may have come from the ETF. Errors in one of the sets of data are another possible explanation. [2] Kaduna State University opened in 2004, so there was no recurrent expenditure prior to these records

**Table 5.5: Overhead expenditure as a percentage of total recurrent expenditure**

| | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|
| College of Education | 21.9 | 19.4 | Na | 16.6 | 17.3 |
| Kaduna State University | Na | Na | Na | 72.7 | 50.0 |
| Kaduna State Polytechnic | 18.0 | 22.5 | Na | 16.0 | 27.6 |
| College of Nursing | 40.0 | 47.6 | Na | 40.0 | 38.1 |
| School of Health Technology | 32.3 | 23.7 | Na | 36.4 | 30.2 |
| **Overall** | **29.8** | **29.6** | **Na** | **38.6** | **42.6** |

**Source**: Institutional records

### Capital expenditure

111. The level of capital investment at the HEIs increased significantly between 200/01 to 2004/05 (see Table 5.6). The establishment of Kaduna State University and the renovation and expansion of the School of Health Technology absorbed 78 percent of this investment. The total investment to establish the University is estimated at N2.35 billion for the period 2005-08. Capital expenditure at the College of Education[19] and the School of Nursing has been minimal during the last five years, which means that funds have been insufficient for even basic repairs and maintenance of buildings and equipment.

**Table 5.6: Capital expenditure at the HEIs, 2000/01-2004/05 (N rounded million)**

| INSTITUTION | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|
| Scholarship Board | 1 | 0 | 0 | 0 | 0 |
| College of Education | 61 | 19 | 0 | 30 | 8 |
| Kaduna State University | 57 | 49 | 0 | 647 | 183 |
| Kaduna State Polytechnic | 32 | 51 | 2 | 112 | 68 |
| School of Nursing | 0 | 0 | 0 | 6 | 47 |
| School of Health Technology | 0 | 98 | 0 | 115 | 365 |
| Subtotal | 152 | 217 | 3 | 909 | 671 |

**Source**: Institutional records, Ministry of Finance

**Note**: Triangulation with the data in Tables 2.3, 2.6, 2.9 and 2.10 indicates that there must have been funding in addition to that recorded from the state government and IGR in order to fund the level of expenditure here and in Table 5.4 - all or part of this may have come from the ETF. 0 may mean less than 0.5 million. Errors in one of the sets of data are another possible explanation.

## 5.5 RESOURCE UTILISATION

### Teaching staff: competence and commitment

112. Only 20.1 percent of academic staff at the five HEIs have post-graduate qualifications - 18 PhDs (13 of which are at KSU) and 149 master degrees. Relatively large numbers of support staff are employed at every institution (see Table 5.7). The number and quality of staff offices is generally inadequate.

[19] More than 40 percent of capital expenditure at the College of Education was funded from internally generated revenue during this period.

**Table 5.7: Academic and support staff employed at higher education institutions, 2000/01-2004/05**

| | 1998/99 | 2000/01 | 2002/03 | 2004/05 |
|---|---|---|---|---|
| **Academic staff** | | | | |
| College of Education | 161 | 167 | 297 | 310 |
| State Polytechnic | 237 | 249 | 345 | 410 |
| State University | na | Na | na | 57 |
| School of Nursing | 17 | 19 | 18 | 32 |
| **Support staff** | | | | |
| College of Education | 190 | 189 | 261 | 259 |
| State Polytechnic | 324 | 334 | 363 | 377 |
| State University | na | Na | na | 77 |
| School of Nursing | 37 | 36 | 36 | 76 |
| **Support-academic staff ratios** | | | | |
| College of Education | 1.2 | 1.1 | 0.9 | 0.8 |
| State Polytechnic | 1.4 | 1.3 | 1.1 | 0.9 |
| State University | na | Na | na | 1.4 |
| School of Nursing | 2.2 | 1.9 | 2.0 | 2.4 |

**Notes**: [1] Data for the School of Health Technology was not available. [2] Kaduna State University opened in 2004, so there is no data for prior years
**Source**: Institutional records

113. After a long campaign and protracted negotiations with the state government, lecturers and support staff at the two HEIs under the Ministry of Education were put on HATTIS pay scales in 2002. However, sizeable income differentials with teaching staff at federal HEIs still exist (around one-third for most grades).

114. The average annual salary for academic staff at the College of Education was N624,000 in 2004/05, which, in real terms, was 84 percent higher than in 1998/99. Even so, a monthly salary of N52,000 is still considerably less than what is generally considered to be the minimum 'survival' income for a professional household in Kaduna. The average monthly income of support staff was N22,400 in 2004/05. Most lecturers feel aggrieved because they are underpaid and increasingly over-worked. Many of them try to supplement their meagre salaries by taking part-time jobs or they engage in business activities. No systematic staff development programmes exist. All these factors tend to impact negatively on the morale and job performance of staff.

115. The funding crisis has also meant that it has not been possible to increase significantly the number of full-time teaching posts at most HEIs. Student-lecturer ratios have therefore risen considerably. These ratios range from 37:1 at the College of Education to 9:1 at the state university, though this is largely attributable to it being a new institution (see Table 5.8).

**Table 5.8: Student-teacher ratios at HEIs 2005-2006**

| | |
|---|---|
| College of Education | 36.8 |
| State polytechnic | 30.2 |
| State university | 8.7 |
| School of Health Technology | Na |
| School of Nursing | 18.8 |

116. Teaching loads are also high at most HEIs, which leaves lecturers with little time to prepare for lectures and for their own research and self-development. Some HEIs (in particular the Polytechnic) rely quite heavily on 'part-time' teaching staff.

## The learning environment

117. The learning environment at HEIs is challenging, to say the least. Facilities at all the HEIs are poor. Libraries have very limited collections of book and journals.

## Unit costs

118. Table 5.9 shows the total public recurrent expenditure per student in 2005 as well as total recurrent institutional expenditure per student. These expenditures are particularly high at the state university because of the high initial start-up costs and the small initial intake of students in 2005.

**Table 5.9: Recurrent expenditure per student at HEIs, 2004/2005 (Naira rounded)**

| RECURRENT EXPENDITURE/STUDENT | PUBLIC | INSTITUTIONAL (PUBLIC+IGR) |
|---|---|---|
| College of Education | 24,100 | 27,900 |
| Polytechnic | 27,100 | 30,500 |
| University | 171,100 | 192,200 |
| School of Nursing | 19,000 | 27,200 |

## Educational outcomes

119. The combination of seriously inadequate operational resources and infrastructure and facilities and generally high student-teacher ratios with poorly motivated teaching staff results in low quality education and training provision with graduates who are generally not well prepared for their chosen areas of occupational specialisation. The failure of the Polytechnic to obtain accreditation from the National Board of Technical Education for the courses (namely agriculture and engineering) for which it was originally set up is indicative of the poor quality of training provision.

120. As in other states in Nigeria, there are pervasive concerns that the quality of higher education in Kaduna is being sacrificed for the sake of financial survival and increasing enrolments. As discussed earlier, state-funded HEIs are under enormous pressure to increase enrolments in order to generate sufficient income to pay for salaries and overhead expenditures as well as responding to social and political pressures to absorb growing numbers of unemployed secondary school leavers.

121. Despite large enrolments with over-stretched and increasingly de-motivated teaching staff, course completion rate at most of the HEIs are generally quite high.

# 6. ENROLMENT AND EXPENDITURE PROJECTIONS

122. This chapter presents enrolment and expenditure projections for primary and secondary education for Kaduna State up to 2015/16. Robust projections should be based on detailed research and planning concerning all the key determinants of enrolments and expenditures. However, information on many of the key parameters remains limited and possibly quite inaccurate. Consequently, the projections that have been generated should be treated as quite tentative whose primary purpose is to highlight the potential usefulness of projection exercises of this kind in identifying key trends and assessing policy choices.

## 6.1 ENROLMENT GROWTH

123. KSG is strongly committed to the attainment of UBE by 2015. It is important, therefore, to generate accurate enrolment projections. There are six key parameters that will determine the number of children attending government primary and secondary schools, namely the school-aged population, gross intake rates of six-year old children into primary school, grade repetition rates, permanent withdrawal/dropout rates, transition rates from primary to junior proportion of children who attend private schools.

**Key parameters**

**School-aged population**

124. The basis for enrolment projections is good quality information on the current and likely future size of the school age population. The 2006 Population Census will provide detailed accurate data on the size of the school age population and, more specifically, the number of children aged six who should be enrolling in school. However, since the full results of the Census are still not available, estimates of the six year old population in 2005/06, which have been made by NBS demographers based on the 1991 Census, have been used instead. It is quite possible that these projected population estimates are markedly different from the actual size of the population.

125. The 2006 Census will also provide accurate estimates of population growth in each state. In the meantime, population rate growth estimates have been derived from the CWIQ household survey. For Kaduna State, this was 2.8 percent in 2005/06.

**Gross intake rates**

126. The gross intake rate for primary schooling is the number of new students enrolled in grade 1 (regardless of age) divided by the population of six year old children. GIR estimates are generated by the EMIS team at FMOE from the enrolment statistics collected by the ASC and the official population projections of the six-year old population. The GIR for Kaduna State is 105.5 percent.

**Repetition and dropout rates**

127. The impact of changes to repetition rates on future enrolments will be small since the incidence of repetition is quite low in Kaduna State. It has been assumed that, for the UBE grades (1-9), repetition rates will decline by 50 percent over the next five years and will be zero thereafter. For senior secondary education, it has also been assumed that repetition rates will decline steadily to half their current levels by 2010/11, but that they will then remain at this level.

128. As noted earlier, no reliable data exists on dropout rates. The information collected by the School Census seriously under-estimates the number of 'withdrawals' mainly because schools appear to be only recording children who leave during the school year and not at the end of the year, which probably accounts for the bulk of dropouts. However, in the absence of reliable alternative data, the ASC estimates have been used. The same assumptions have been used for drop out rates as with repetition rates.

**Transition rates**

129. The ASC estimates of the primary to junior secondary school transition rate are 42.9 percent for females and 43.6 percent for males, which are much lower than the imputed transition rates of 85 percent for both females and males the CWIQ survey data. Again, in the absence of alternative enrolment data, the ASC transition rate has been used for the enrolment projections, but further research is urgently needed in order to obtain robust data for this key planning parameter.

130. Two enrolment scenarios have been developed with respect to transition rates. The first scenario assumes that, in order to attain UBE by 2015, all primary school leavers will enrol in junior secondary schools by 2010/11 i.e. a transition rate of 100. However, in the states such as Kaduna that currently have relatively low primary to JSS transition rates, this results in an explosive growth in enrolments in junior secondary/upper basic schools over the next ten years. A second scenario has, therefore, been developed, which assumes that the transition rate from primary to junior secondary school steadily increases from its current level to 100 percent by 2015/16.

131. Major policy decisions are also required with regard to the proportion of children who complete junior secondary education who then proceed to senior secondary school. Given the growth in JSS enrolments, it will only be possible (and desirable) for a declining proportion to advance to SSS. It has been assumed therefore that the transition rate for junior to senior secondary schooling declines steadily from its current level of 85 percent to 70 percent in 2010/11, and then to 50 percent in 2015/16 and 30 percent in 2020/21.

**Table 6.1: Projected enrolments for primary and secondary schooling, 2005/06-2015/16, Kaduna State ('000 rounded)**

| | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primary | Scenario1 | 935 | 1030 | 1005 | 1059 | 1007 | 1057 | 1086 | 1114 | 1213 | 1263 | 1413 |
| JSS | Scenario 1 | 109 | 114 | 152 | 218 | 301 | 389 | 457 | 514 | 481 | 504 | 429 |
| | Scenario 2 | 109 | 112 | 140 | 188 | 244 | 296 | 343 | 396 | 393 | 443 | 401 |
| SSS | Scenario 1 | 69 | 76 | 76 | 75 | 77 | 101 | 140 | 185 | 226 | 252 | 269 |
| | Scenario 2 | 69 | 76 | 76 | 75 | 76 | 93 | 121 | 151 | 172 | 189 | 207 |

**Private schooling**

132. It has been assumed that the current shares of private schools in primary and secondary enrolments will remain at their current levels over the next 15 years. However, the experience from other countries suggests that private school enrolments could grow very rapidly in the face of declining standards in government schools.

**Model results**

133. Given the likely sizeable inaccuracies in the size of the age six intake population, as well as intake and transition rates, the results of the modelling exercise should be treated with caution.

134. On the basis of the NBS population projections, primary school enrolments will increase from 935,000 in 2005/06 to 1,413, 000 in 2015/16 (see Table 6.1). Junior secondary school enrolments are projected to increase nearly fourfold - from 109, 000 to 429,000 in 2015/16. Delaying the introduction of 100 percent transition to JSS lowers target enrolments slightly to 401, 000.

135. Even assuming that the transition rate from junior to senior secondary schooling declines to 50 percent by 2015/16, projected senior secondary school enrolments still increase from 69, 000 in 2005/06 to 269, 000 under scenario 1 and 207, 000 under scenario 2.

## 6.2 FUNDING REQUIREMENTS

136. Apart from projected enrolments, the other key parameters that determine future funding requirements for the schooling system are the unit costs of all essential inputs (most notably teaching staff, textbooks and other learning materials, and classrooms and other school buildings) and two key resource utilisation ratios, namely average class size (pupil-class ratio) and teacher workload (teacher-stream ratio).

137. A comprehensive modelling exercise would generate future expenditure requirements for both the capital expenditure needed to educate additional students according to specified minimum standards as well as for currently enrolled students. However, since the latter requires a detailed audit of the condition and repair and refurbishment costs of existing structures, it is not possible to derive meaningful estimates as part of this modelling exercise.

**Unit input costs**

138. Given the time available to the review team, it was only possible to collect basic information on the cost of key schooling inputs, most notably classrooms and other school structures (toilets, library) and furniture. This has been supplemented with information on unit costs presented in the UNICEF Essential Learning Package report[20] (see Table 6.2). Only the following core inputs were included in each modelling exercise: teachers, classrooms, toilets, libraries, and textbooks and student workbooks.

[20] The report, however, covers only three states in the north of the country (Bauchi, Jigawa, and Niger).

**Table 6.2: Unit costings for Essential Learning Package for primary school students**

| | SPECIFICATION | UNIT COST | COMMENTS |
|---|---|---|---|
| **CAPITAL EXPENDITURE** | | | |
| Classrooms | Current design for 2 block classrooms for 40 students<br>Each with office and storeroom | 2,500,000 | For all structures, indefinite lifetime with annual repair/ maintenance costs of 2.5 percent initial construction costs |
| | Improved 2 block classroom with terrazo floor<br>And strip aluminium roofing | 3,500,000 | |
| Toilets | Standard VIP design with six compartments | 900,000 | |
| Library | One library building per school | 4,000,000 | |
| Borehole | One for each school | | |
| Student furniture | Two-seater wooden desks | 8,000 | Replacement every 10 years |
| Teacher furniture | Desk and chair in each classroom | 10,000 | Replacement every 10 years |
| Science equipment | One set for every 250 students | 900,000 | Replacement every five years |
| Office equipment | Filing cabinet, | ? | |
| Computers | | ? | |
| Kitchen | One for each school for preparation of school meals | ? | |
| Teacher houses | Two bedroom | 3,100,000 | |
| **CONSUMABLES** | | | |
| Student textbooks | One for each of the four core subjects | 2,400 | Replacement every three years |
| Student workbooks | One for each of the four core subjects | 1,100 | Replacement every year |
| Teacher textbooks | One set for each grade for every subject teacher | | Replacement every three years |
| Teacher guides | One for every subject and grade taught | | Replacement every three years |
| Basic supplies | Four exercise books and six pencils/pens per student<br>And school record books | 750 | Supplied once a year |
| Sports equipment | 1 footballs, basketball, volleyball for every 250 students | | Replacement every two years |
| Library books | Standard set of 250 books for every 250 students | ? | Replacement every three years |
| Uniforms | Two sets of uniform for new admissions to girls in PR1 and JS1 | 2000 | Supplied once only to each student |
| Food for boarders | Three meals a day during term time | 10,000 | |
| School meals | One nutritious meal every school day | ? | |
| Electricity/telephone | | | |
| Teacher development | One INSET/refresher course every year | 50,000 | |

139. The average annual salaries of primary and secondary school teachers are the key unit cost for teachers. It has been assumed that the annual increase in salary costs is two percent every year for the next fifteen years, which covers both increases in salaries due to grade progression and future pay awards. This may be an under-estimate so more research is needed to establish more robust estimates. The unit costs of classrooms are based on the improved construction specifications, most notably terrazzo flooring and strip aluminium roofing, which are stipulated by ETF.

140. Information on replacement costs is not available, but with proper school management, the minimum lifetime of textbooks should be three years, 10 years for classroom furniture, and five years for science equipment. Consumable input costs have been assumed to be the same for JSS as for primary schooling (at N265 per annum) while unit costs for learning materials for senior secondary schooling have been assumed to be three times this level (at N800 per annum).

## Target efficiency parameters

141. As discussed earlier, the key efficiency parameter for school systems is the pupil-teacher ratio since it determines the number of teachers that are required to teach a certain number of students. Targets for its two main components, namely the student-class and teacher-stream ratios, need therefore to established. This is a major planning exercise in its own right, which requires detailed analytical work and extensive discussions with all major stakeholders. The target efficiency parameters for Kaduna State are presented in Table 6.3. The current average class sizes of 65 for JSS and 62 for SSS will have to be reduced significantly to their target level of 40 by 2015/16. With regard to the teacher-stream ratio, it has been assumed that the target teaching load for primary school teachers is maintained at the level of 38 periods. Target teaching loads have been set at 30 for JSS and 25 periods a week for SSS. They are currently 21 and 15 respectively. Achieving these targets means that the student-teacher ratio will increase from 33 to 39 for primary schooling and 24 to 26 for SSS, but decrease from 35 to 31 for JSS.

**Table 6.3: Target efficiency ratios, 2005/06, 2010/11 and 2015/16, Kaduna State**

| | 2005/06 | 2010/11 | 2015/16 |
|---|---|---|---|
| **PRIMARY** | | | |
| Student-class ratio | 34 | 37 | 40 |
| Teacher-stream ratio | 1.03 | 1.03 | 1.03 |
| Student-teacher ratio | 33 | 36 | 39 |
| **JUNIOR SECONDARY** | | | |
| Student-class ratio | 65 | 53 | 40 |
| Teacher-stream ratio | 1.86 | 1.3 | 1.3 |
| Student-teacher ratio | 35 | 41 | 31 |
| **SENIOR SECONDARY** | | | |
| Student-class ratio | 62 | 51 | 40 |
| Teacher-stream ratio | 2.6 | 1.56 | 1.56 |
| Student-teacher ratio | 24 | 33 | 26 |

## Model results

142. The annual recurrent and capital funding requirements for primary and junior and senior secondary for Kaduna State based on the ASC intake estimates over the next ten years are presented in Tables 6.4-6.6. Total recurrent expenditure based on current aggregate unit costs increases in line with projected enrolment increases (see Table 6.4). Under scenario 1, total

recurrent expenditure for primary education increases from N 5.0 billion in 2005/06 to N 7.5 billion in 2015/16, from N1.2 billion to 4.7 billion for JSS and from N 0.75 billion to N3.0 billion for SSS.

143. Table 6.5 shows the projected increase in emoluments, learning materials and total recurrent expenditure based on the no change and target unit costs and student-teacher ratios (see also Annex table 6.1). For primary education, projected recurrent expenditure increases from N 6.2 billion in 2005/06 to N 10.7 billion in 2015/16 with no change in PTRs and N9.6 billion with the target PTRs. For JSS, under scenario 1, expenditure increases from N1.2 billion to N18.8 billion and N 20.7 billion for the no change and target PTR scenarios respectively. The corresponding figures for SSS are from N0.8 billion to N 3.8 billion and N 3.3 billion.

144. Capital expenditure projections for additional classrooms and other key investments are presented in Table 6.6 and Annex table 6.2. While the pattern of expenditures varies according to the different enrolment increase scenarios, these expenditure projections show the overall magnitude of the challenge in accommodating the expected increase enrolments over the next decade, especially with regard to secondary education.

**Table 6.4: Projected recurrent expenditure on primary and secondary schooling based on current public recurrent unit expenditures, 2005/06-2015/16, Kaduna State (N billion)**

| | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primary | Scenario 1 | 4.97 | 5.48 | 5.35 | 5.63 | 5.36 | 5.62 | 5.78 | 5.93 | 6.45 | 6.72 | 7.52 |
| Junior secondary | Scenario 1 | 1.20 | 1.25 | 1.67 | 2.40 | 3.31 | 4.28 | 5.03 | 5.65 | 5.29 | 5.54 | 4.72 |
| Junior secondary | Scenario 2 | 1.20 | 1.23 | 1.54 | 2.07 | 2.68 | 3.26 | 3.77 | 4.36 | 4.32 | 4.87 | 4.41 |
| Senior secondary | Scenario 1 | 0.76 | 0.84 | 0.84 | 0.83 | 0.85 | 1.11 | 1.54 | 2.04 | 2.49 | 2.77 | 2.96 |
| Senior secondary | Scenario 2 | 0.76 | 0.84 | 0.84 | 0.83 | 0.84 | 1.02 | 1.33 | 1.66 | 1.89 | 2.08 | 2.28 |
| TOTALS | Scenario 1 | 6.93 | 7.57 | 7.85 | 8.86 | 9.52 | 11.01 | 12.34 | 13.62 | 14.23 | 15.04 | 15.20 |
| | Scenario 2 | 6.93 | 7.55 | 7.72 | 8.53 | 8.88 | 9.90 | 10.88 | 11.94 | 12.67 | 13.67 | 14.21 |

**Table 6.5: Total recurrent expenditure for primary and secondary schooling, 2005/06-2015/16, Kaduna State (N billion)**

**TEACHER COSTS**

**No change PTRs**

| | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primary | | 3.93 | 8.07 | 8.29 | 8.48 | 8.23 | 8.54 | 8.66 | 6.08 | 6.03 | 6.33 | 7.24 |
| JSS | Scenario 1 | 0.94 | 1.00 | 1.36 | 1.99 | 2.81 | 3.70 | 4.44 | 10.97 | 12.10 | 12.59 | 15.13 |
| | Scenario 2 | 0.94 | 0.98 | 1.26 | 1.72 | 2.28 | 2.82 | 3.33 | 8.72 | 9.96 | 10.70 | 11.47 |
| SSS | Scenario 1 | 0.52 | 0.59 | 0.60 | 0.60 | 0.63 | 0.85 | 1.20 | 1.61 | 2.01 | 2.28 | 2.33 |
| | Scenario 2 | 0.52 | 0.59 | 0.60 | 0.60 | 0.62 | 0.69 | 1.03 | 1.31 | 1.53 | 1.71 | 1.92 |

**Target PTRs**

| | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primary | | 3.93 | 8.07 | 8.04 | 8.00 | 7.55 | 7.83 | 7.94 | 5.42 | 5.24 | 5.50 | 6.13 |
| JSS | Scenario 1 | 0.94 | 0.97 | 1.29 | 1.84 | 2.46 | 3.16 | 3.98 | 10.38 | 12.10 | 13.35 | 17.08 |
| | Scenario 2 | 0.94 | 0.96 | 1.19 | 1.58 | 1.99 | 2.41 | 2.99 | 8.25 | 9.96 | 11.35 | 12.94 |
| SSS | Scenario 1 | 0.52 | 0.54 | 0.51 | 0.48 | 0.47 | 0.61 | 0.93 | 1.33 | 1.72 | 2.03 | 2.15 |
| | Scenario 2 | 0.52 | 0.54 | 0.51 | 0.48 | 0.47 | 0.50 | 0.80 | 1.09 | 1.31 | 1.52 | 1.77 |

**LEARNING MATERIALS COSTS**

| | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primary | | 2.28 | 4.58 | 4.61 | 4.64 | 4.42 | 4.47 | 4.46 | 3.07 | 2.98 | 3.08 | 3.44 |
| JSS | Scenario 1 | 0.27 | 0.29 | 0.38 | 0.55 | 0.76 | 0.98 | 1.15 | 2.80 | 3.02 | 3.08 | 3.64 |
| | Scenario 2 | 0.27 | 0.28 | 0.35 | 0.47 | 0.62 | 0.75 | 0.87 | 2.22 | 2.49 | 2.62 | 2.75 |
| SSS | Scenario 1 | 0.32 | 0.35 | 0.35 | 0.34 | 0.35 | 0.46 | 0.64 | 0.85 | 1.04 | 1.16 | 1.16 |
| | Scenario 2 | 0.32 | 0.35 | 0.35 | 0.34 | 0.35 | 0.38 | 0.56 | 0.69 | 0.79 | 0.87 | 0.96 |

**Table 6.5 (cont.): Total recurrent expenditure for primary and secondary schooling, 2005/06-2015/16, Kaduna State (N billion)**

| **TOTAL RECURRENT** | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **No change PTRs** | | | | | | | | | | | | |
| | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Primary | | 6.21 | 12.65 | 12.90 | 13.12 | 12.65 | 13.01 | 13.12 | 9.15 | 9.01 | 9.41 | 10.68 |
| JSS | Scenario 1 | 1.21 | 1.29 | 1.75 | 2.54 | 3.57 | 4.68 | 5.59 | 13.77 | 15.12 | 15.67 | 18.76 |
| | Scenario 2 | 1.21 | 1.27 | 1.61 | 2.19 | 2.89 | 3.56 | 4.20 | 10.95 | 12.45 | 13.32 | 14.22 |
| SSS | Scenario 1 | 0.84 | 0.94 | 0.95 | 0.95 | 0.99 | 1.31 | 1.84 | 2.46 | 3.04 | 3.44 | 3.48 |
| | Scenario 2 | 0.84 | 0.94 | 0.95 | 0.95 | 0.97 | 1.06 | 1.59 | 2.01 | 2.32 | 2.58 | 2.88 |
| **Target PTRs** | | | | | | | | | | | | |
| | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Primary | Scenario 1 | 6.21 | 12.65 | 12.66 | 12.64 | 11.97 | 12.30 | 12.40 | 8.50 | 8.21 | 8.57 | 9.57 |
| JSS | Scenario 1 | 1.21 | 1.26 | 1.67 | 2.39 | 3.22 | 4.14 | 5.14 | 13.17 | 15.12 | 16.43 | 20.72 |
| | Scenario 2 | 1.21 | 1.24 | 1.54 | 2.06 | 2.61 | 3.15 | 3.85 | 10.47 | 12.45 | 13.97 | 15.70 |
| SSS | Scenario 1 | 0.84 | 0.89 | 0.86 | 0.83 | 0.83 | 1.08 | 1.57 | 2.18 | 2.76 | 3.19 | 3.30 |
| | Scenario 2 | 0.84 | 0.89 | 0.86 | 0.83 | 0.82 | 0.88 | 1.36 | 1.78 | 2.10 | 2.39 | 2.73 |

**Notes**: Excludes salary costs of support staff

**Table 6.6: Expenditure projections for construction and classroom furniture, libraries and science equipment to accommodate additional enrolments, 2006/07-2015/16, Kaduna State (N billion)**

| | | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primary | | 5.05 | -1.33 | 2.87 | -2.77 | 2.66 | 1.54 | 1.49 | 5.27 | 2.66 | 7.98 | 25.43 |
| JSS | Scenario 1 | 0.27 | 2.02 | 3.51 | 4.42 | 4.68 | 3.62 | 3.03 | -1.76 | 1.22 | -3.99 | 17.02 |
| | Scenario 2 | 0.16 | 1.49 | 2.55 | 2.98 | 2.77 | 2.50 | 2.82 | -0.16 | 2.66 | -2.23 | 15.53 |
| SSS | Scenario 1 | 0.37 | 0.00 | -0.05 | 0.11 | 1.28 | 2.07 | 2.39 | 2.18 | 1.38 | 0.90 | 10.64 |
| | Scenario 2 | 0.37 | 0.00 | -0.05 | 0.05 | 0.90 | 1.49 | 1.60 | 1.12 | 0.90 | 0.96 | 7.34 |

# 7. CONCLUSIONS AND RECOMMENDATIONS

145. This final chapter presents the main conclusions and recommendations of the public expenditure review. It must be stressed that considerably more research and analysis is required in order to develop detailed and operational recommendations. Other studies and reviews have also been recently undertaken or planned in the near future, which all relate to funding and resource utilisation issues. Consequently, the findings, conclusions and recommendations of these documents need to be brought together in a coherent and systematic manner.

## 7.1 SYSTEM PLANNING AND MANAGEMENT

146. The shortcomings of the financial management regime in the public sector are recognised by the state government. The Medium Term Expenditure Framework (MTEF), which has been successfully introduced in many countries and other performance-based budgetary reforms are being currently being phased in. However, it is important not to under-estimate the size of the challenge in achieving major improvements, especially in the short term. The extent of misappropriation of public resources in the education sector appears to be quite limited.

147. Other key areas of system planning and management need to be urgently improved. In particular, relatively little detailed and systematic educational and human resource planning are currently being undertaken by MoE and other relevant agencies. The availability of statistical information on schools and other aspects of service provision have improved considerably in recent years, but further steps are needed in order to ensure that all schools complete the Annual School Census accurately and in a timely manner. Better quality information coupled with more detailed planning provide the foundation for the development of a well-formulated and comprehensive education sector strategy for the period up to 2015. This strategy should contain precisely specified enrolment and learning outcome goals and targets for basic, secondary and higher education, action plans for increased effectiveness and efficiency with respect to all the key areas of service delivery (especially teachers and support staff, infrastructure, and learning materials), and robust costings and sector and sub-sector expenditure projections.

148. A better understanding of the institutional relationships between all the key stakeholders in the education sector is also very important in order that realistic assessments can be made of the scope for more efficient and equitable resource allocation to the education sector and, more generally, improved planning and management.

## 7.2 PUBLIC AND PUBLIC FUNDING

149. Kaduna State Government is strongly committed to the attainment of the UBE goals by 2015. However, it is clear that schools and higher education institutions are critically short of resources in order to meet even the basic conditions for effective learning and to ensure that all children attend school. Primary and junior secondary/upper basic school and enrolments will have to increase by over 50 percent and 500 percent over the next decade if universal basic education for all is to be achieved, which will require massive increases in both recurrent and capital expenditure.

150. The key question is therefore, where is this additional funding going to come from? There are six potential sources. Firstly, on equity grounds, the overall federal allocation to Kaduna State should be increased substantially. Public revenue per capita (including both federal allocations to the state and LGAs) was USD91 per annum in 2006, which was around USD35 lower than the average per capita allocation for the country as a whole. Secondly, while recognising the many pressing demands that the state government faces, a strong case can be made for the share of the state budget that is allocated to education to be increased to at least 25 percent, which is also the funding norm recommended by UNESCO for developing countries. This is considerably higher than the current share of 16 percent, but it is essential in order to meet the minimum funding requirements for UBE presented in Chapter 6. Thirdly, as has often been pointed out in other reports, the federal government spends relatively little on education compared with other countries with similar levels of GDP per capita. Considerably scope exists therefore for increasing federal funding of education. Fourthly, the level of funding for primary education among some local governments should be increased. At discussed in Chapter 2, there is very considerable variability in the levels of financial support among LGEAs. However, it should be pointed out that, in overall terms, 27.4 percent of the federal allocation to LGAs in Kaduna is spent on primary school salaries, which is considerably higher than many other states, especially in the north of the country. Local governments should also be encouraged to increase significantly their funding for essential overhead expenditures at primary schools. In the past, they provided the equivalent of 10 percent of the staff bill for these expenditures. A key issue here is how much of their Federal Account allocations are LGAs actually receiving via the Joint Allocation Committee. In some states, there are concerns that some of this funding is being re-directed for other uses by state governments. Fifthly, the private sector, both individuals and organisations, could be called on to make greater financial contributions for the provision of basic services, including education. However, the incidence of poverty is so high in Kaduna State that it is probably neither feasible nor desirable to expect poor households to spend more on educating their children. Free basic education is the key policy underpinning UBE and should not, therefore, be undermined in any way at all. External assistance is the sixth major source of funding, which hitherto has not been relied upon to any great extent. More concerted efforts could, therefore, be made by the state government to seek support from both bilateral and multilateral donor partners.

151. The reallocation of resources within the education sector is another frequently recommended option for increasing funding for basic education. The share of primary education in state funding for education fell from 55 to 45 percent between 2001 and 2005 while the share of higher education increased from 11 to 19 percent. The share of secondary education has remained fairly constant at around one-third of the state education budget. Coupled with the limited scope for further cost-recovery in secondary education and HEIs, it may not, therefore, be feasible or desirable to increase significantly the share of primary education.

## 7.3 IMPROVED RESOURCE UTILISATION

152. Major efficiency improvements in resource utilisation are the other major way in which additional resources could be freed up from within the education sector. As in all areas of service delivery, it is essential to create the appropriate incentive structures at all levels of the education system - MoE headquarters, zonal offices and LGEAs and, most importantly, schools themselves. There is a package of public sector reforms that can, if properly designed and implemented, improve significantly the accountability of service providers to their core client groups. In the education sector, these include clear and transparent performance standards, public disclosure of the performance of service providers (schools and support services such as

inspection, construction, curriculum, and the provision of learning materials), effective support and appraisal of teachers and school managers, and appropriate governance structures that allow the full involvement of parents and local communities in the management of schools.

153. As has been emphasised earlier, very considerable scope exists for improving the utilisation of teachers in Kaduna State. In particular, the average teaching loads of JSS and SSS teachers are only 21 and 15 periods a week respectively. Increasing these teaching loads would achieve major resource savings, which could be used for other purposes, in particular the provision of a minimum package of learning materials for all students and the construction of new classrooms.

154. The deployment of teachers is another major source of resource inefficiency and inequity. On both equity and efficiency grounds, the deployment of teachers should, therefore, be improved considerably. More research is needed in order to understand what practical steps could be taken to achieve this. The experience from other countries shows just how difficult it is to redress locational imbalances, especially between major urban and remoter rural areas, in the posting of teachers. While urban schools tend to be over-staffed, rural schools have large numbers of vacancies, and the teachers in these schools, who tend to be less experienced and qualified, often have to work a lot harder than their colleagues in the cities. More centralised recruitment and the enforcement of regulations that ensure that teachers work for the prescribed minimum periods at the schools to which they are posted are obvious solutions, but this requires high levels of political commitment. Rural and other kinds of hardship allowance are usually too small to make any real difference to staffing patterns, but improved teacher housing has been effective in some countries. Serious consideration should also be given to the re-establishment of a separate Primary Teacher Services Commission, which has overall responsibility for recruitment and other basic human resource management functions for teachers.

155. The current highly skewed deployment of qualified teachers results in higher public expenditure per student at schools in urban areas. Countering this urban bias in the distribution of resources is not easy, but with sufficient commitment, allocation formulae can be devised that ensure that public expenditure per student is more equal.

156. The management of the UBE Intervention Fund, which is likely to be the major source of overhead funding for the foreseeable future, should be reviewed. In particular, schools should have greater involvement in deciding how these resources are spent. A major innovation in many countries, which is proving to be very successful, is the introduction of student per capitation grants. These are fixed annually depending on the availability of funding and are directly disbursed to schools according to the number of students enrolled. School management committees then decide on how the money should be spent. The scheme has to be carefully supervised in order to ensure that funds are properly spent and schools do not inflate student numbers. Another major issue is how to speed up UBEC disbursements, which, as with other states, have been subject to major delays.

157. Finally, the relatively small size of schools in Kaduna State results in high unit costs. More research is needed to understand in detail why schools are so small. Low population densities are almost certainly a key factor in remoter rural areas, but there are also likely to be community and other political pressures that result in excessive number of schools.

## 7.4 IMPROVING THE LEARNING ENVIRONMENT

158. Average class sizes in primary schools need to be reduced by well over one half their current levels over the next decade in order to ensure a minimally acceptable learning environment. In addition, a more concerted effort is needed in order to upgrade the 60 percent of primary school teachers who are not qualified to the NCE level. All unqualified teachers should be obliged to enrol on a well-designed and resourced NCE upgrading programme, which does not make unrealistic demands on the teacher with respect to both time and money. The College of Education should be responsible for this upgrading programme. Outputs of pre-service teacher trainees are excessive so intakes should be reduced in the future. The provision of textbooks for the four core primary school subjects is the third major area that needs to be urgently addressed.

## 7.5 IMPROVING ACCESS

159. Considerable progress has been made in redressing gender inequities with regard to access to education. However, gender gaps are still very large, especially in rural areas. The provision of free primary and secondary education for girls is crucially important, but has major funding implications, especially for girls' boarding secondary schools, which are relatively costly to run. The replacement of junior secondary schools (which currently charge school fees) with upper basic schools will also have major cost implications because of the much higher enrolments that are being planned for and the total reliance of upper basic schools on public funding. As enrolments continue to expand, more attention will need to be given to targeting of the poorest, hardest to reach children. Half of girls and nearly one quarter of boys in the lowest income quintile do not currently attend school. More research is needed, but it appears that these enrolment ratios are due mainly to demand rather than supply side constraints. Thus, demand enhancing interventions are the only way in which these children will be able to attend school. The evidence from other countries suggests that school feeding could have a major impact in improving school attendance. A number of states in Nigeria are currently piloting school feeding programmes, which will provide an important source of information on the desirability and feasibility of introducing school feeding at primary schools in Kaduna State.

## 7.6 HIGHER EDUCATION

160. As elsewhere in Nigeria, all the state-funded higher education institutions in Kaduna State are in serious financial crisis. They are all struggling to generate sufficient internally generated revenue to meet even their most basic operating costs. The quality of education and training is generally seriously sub-standard, especially because students are unable to do the required practical training that is a core component of most occupational training courses. The whole sector should, therefore, be comprehensively reviewed. In particular, the future goals of higher education in the state and the required skills/competencies that are needed to meet national and state development strategies should be carefully formulated. A clear vision and a sound policy for higher education are required in order to guide decision-making and action at various levels. Quick tracer surveys of different cohorts of graduates in all major subject areas should also be undertaken in order to establish the employment outcomes of graduates over time. It is clear that there is already serious over-supply of graduates in some areas, including teachers.

161. The federal government has constitutional responsibility for higher education. Consequently, serious consideration should therefore be given to the federal government taking

over some areas of currently state-funded higher education provision. For example, in 2006, a few polytechnics in other states were transferred from state to federal government control.

162. There is also considerable scope for better management of HEIs. The training of university managers and administrators in all key areas including strategic, financial and human management is therefore essential.

# ANNEX TABLES

## ANNEX TABLES SERIES A2

**Table A2.1: Mean primary school fee and PTA contributions per student for primary and secondary schooling by gender and school ownership, 2005 (Naira/annum)**

| | PUBLIC | | PRIVATE | |
|---|---|---|---|---|
| | **Female** | **Male** | **Female** | **Male** |
| **PRIMARY** | | | | |
| Fees | 550 | 320 | 2460 | 3930 |
| PTA | 50 | 60 | 210 | 230 |
| **SECONDARY** | | | | |
| Fees | 1930 | 2050 | 3020 | 4040 |
| PTA | 210 | 460 | 160 | 150 |

**Source**: NLSS 2005

## ANNEX TABLES SERIES A3

**Table A3.1: Reasons given by household respondents for children never attending school, 2005**

| | AGE 5-11 | | AGE 12-17 | |
|---|---|---|---|---|
| | **Female** | **Male** | **Female** | **Male** |
| Too young | 47 | 50 | 3 | 1 |
| Too far away | 6 | 5 | 4 | 6 |
| Too expensive | 10 | 9 | 10 | 10 |
| Is working | 4 | 3 | 14 | 14 |
| Uninteresting/useless | 26 | 5 | 54 | 48 |
| Illness | 1 | 0 | 1 | 0 |
| Other | 11 | 13 | 20 | 27 |

**Source**: CWIQ, 2006

**Table A3.2: Gross enrolment ratios for primary and secondary schooling in selected countries, 2004 (percentages rounded)**

| | Primary | | | Lower secondary | | |
|---|---|---|---|---|---|---|
| **Country** | **Female** | **Male** | **Total** | **Female** | **Male** | **Total** |
| Benin | 86 | 111 | 99 | 18 | 34 | 26 |
| Burkina Faso | 47 | 59 | 53 | 10 | 14 | 12 |
| Cameroon | 107 | 126 | 117 | 36 | 51 | 44 |
| Cote d'Ivoire | 63 | 80 | 72 | 18 | 32 | 25 |
| Ethiopia | 86 | 101 | 93 | 25 | 37 | 31 |
| Ghana | 87 | 90 | 88 | 40 | 47 | 44 |
| Kenya | 108 | 114 | 111 | 46 | 50 | 48 |
| Mali | 56 | 71 | 64 | 17 | 28 | 22 |
| Nigeria | 91 | 107 | 99 | 31 | 38 | 35 |
| Senegal | 74 | 78 | 76 | 16 | 22 | 19 |
| Togo | 92 | 110 | 101 | 26 | 52 | 39 |
| Sub-Saharan Africa | 85 | 96 | 91 | 26 | 34 | 30 |

**Source**: 2007 EFA Global Monitoring Report, UNESCO

**Table A3.3: Gender parity enrolment ratios for LGEAs by school ownership, 2005**

| | | <0.5 | 0.5-0.6 | 0.6-0.7 | 0.7-0.8 | 0.8-0.9 | 0.9-1.0 | 1.0> | Total |
|---|---|---|---|---|---|---|---|---|---|
| **PRIMARY** | Public | 5 | 3 | 1 | 3 | 3 | 0 | 8 | 23 |
| | *percent* | *22* | *13* | *4* | *13* | *13* | *0* | *62* | *100* |
| | Private | 0 | 1 | 3 | 0 | 2 | 4 | 13 | 23 |
| | *percent* | *0* | *4* | *13* | *0* | *9* | *18* | *57* | *100* |
| **JSS** | Public | 10 | 2 | 2 | 3 | 2 | 0 | 2 | 21 |
| | *percent* | *48* | *10* | *10* | *14* | *10* | *0* | *10* | *100* |
| **SS** | Public | 9 | 1 | 3 | 1 | 3 | 4 | 3 | 24 |
| | *percent* | *38* | *4* | *13* | *4* | *13* | *17* | *13* | *100* |

**Source**: EMIS

**Table A3.4: Currently attending school or other education institution by gender, location and age, 2005 (rounded percentages)**

| | RURAL | | URBAN | |
|---|---|---|---|---|
| **Age group** | **Female** | **Male** | **Female** | **Male** |
| 5 to 9 | 52 | 66 | 95 | 91 |
| 10 to 14 | 57 | 65 | 96 | 93 |
| 15 to 19 | 41 | 50 | 76 | 89 |
| 20 to 24 | 16 | 21 | 26 | 75 |

**Source**: NLSS 2005

**Table A3.5: Primary school student transition rates to junior secondary school by LGEAs and school ownership, 2005**

| | | <20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100> | total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRIMARY** | Public | 4 | 2 | 2 | 1 | 4 | 4 | 0 | 0 | 0 | 4 | 21 |
| **TO JSS** | *percent* | *19* | *10* | *10* | *5* | *19* | *19* | *0* | *0* | *0* | *19* | *100* |
| | Private | 5 | 0 | 3 | 0 | 7 | 3 | 0 | 0 | 0 | 3 | 21 |
| | *percent* | *24* | *0* | *14* | *0* | *33* | *14* | *0* | *0* | *0* | *14* | *100* |
| **JSS** | Female | 0 | 0 | 0 | 3 | 1 | 3 | 4 | 5 | 2 | 3 | 21 |
| **TO SSS** | *percent* | *0* | *0* | *0* | *14* | *5* | *14* | *19* | *24* | *10* | *14* | *100* |
| | Male | 0 | 0 | 1 | 0 | 4 | 5 | 3 | 3 | 2 | 3 | 21 |
| | *percent* | *0* | *0* | *5* | *0* | *19* | *24* | *14* | *14* | *10* | *14* | *100* |

**Source**: EMIS

# ANNEX TABLES SERIES A4

**Table A4.1: Teaching and non-teaching staff at public primary schools in Kaduna State 1999-2005**

| Year | Teaching staff | | | Non-teaching staff | | |
|---|---|---|---|---|---|---|
| | Male | Female | Total | Male | Female | Total |
| 1999 | 8,129 | 6,451 | 14,580 | na | na | Na |
| 2000 | Na | na | Na | 8,550 | 6,688 | 15,238 |
| 2001 | 10,459 | 8,208 | 18,667 | Na | Na | Na |
| 2002 | 10,073 | 7,899 | 17,972 | Na | Na | Na |
| 2003 | 10,288 | 7,998 | 18,286 | Na | Na | Na |
| 2004 | 10,760 | 8,088 | 18,848 | 1,497 | 329 | 2,875 |
| 2005 | 17,704 | 11,065 | 28,769 | 2,602 | 663 | 3,265 |

**Source**: SUBEB

**Table A4.2: Secondary school teachers and non-teaching staff, 2000/01-2003/04**

| YEARS | | TEACHERS | | NON-TEACHING | |
|---|---|---|---|---|---|
| | TOTAL STREAMS | MALE | FEMALE | MALE | FEMALE |
| **2000/2001** | 3,194 | 5,375 | 2,136 | - | - |
| **2001/2002** | 3,191 | 3,684 | 1,557 | 976 | 443 |
| **2002/2003** | 3,326 | 3,645 | 1,674 | 862 | 430 |
| **2003/2004** | 3,140 | 3,834 | 1,683 | 907 | 357 |

**Note: A stream is the term used for a class of children**
**Source**: MoE

**Table A4.3: Teachers employed at public secondary school by division, gender and qualification, May, 2005**

| | | MASTERS DEGREE & ABOVE WITH T/Q | | MASTERS DEGREE & ABOVE WITH OUT T/Q | | GRADUATE WITH T/Q | | GRADUATE WITHOUT T/Q | | HND WITH T/Q | | HND WITHOUT TQ | | NCE | | DIP/ACE(A/L) | | WASC/GCE O/L, SSCE, NECO, GRADE I & II | | OTHERS | | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **S/NO.** | **DIVISION*** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** | **M** | **F** |
| 1 | ANCHAU | 1 | 0 | 0 | 0 | 81 | 6 | 5 | 0 | 3 | 2 | 8 | 0 | 161 | 12 | 17 | 0 | 5 | 0 | 20 | 7 | 301 | 27 |
| 2 | BIRNIN GWARI | 0 | 0 | 0 | 0 | 17 | 1 | 14 | 2 | 2 | 0 | 3 | 0 | 31 | 7 | 4 | 0 | 0 | 0 | 0 | 0 | 71 | 10 |
| 3 | GIWA | 2 | 4 | 2 | 1 | 70 | 37 | 45 | 12 | 7 | 2 | 4 | 4 | 90 | 44 | 26 | 0 | 7 | 2 | 19 | 5 | 272 | 111 |
| 4 | GODOGODO | 8 | 0 | 0 | 0 | 79 | 10 | 16 | 3 | 3 | 0 | 8 | 0 | 178 | 25 | 4 | 0 | 0 | 0 | 0 | 0 | 296 | 38 |
| 5 | KACHIA | 6 | 1 | 0 | 0 | 80 | 21 | 22 | 3 | 4 | 1 | 6 | 1 | 185 | 18 | 16 | 1 | 3 | 8 | 8 | 2 | 330 | 56 |
| 6 | KADUNA | 7 | 10 | 3 | 4 | 155 | 144 | 90 | 85 | 15 | 10 | 62 | 27 | 238 | 186 | 47 | 25 | 4 | 6 | 11 | 12 | 632 | 509 |
| 7 | KAFANCHAN | 13 | 5 | 0 | 0 | 231 | 143 | 19 | 1 | 6 | 0 | 9 | 2 | 319 | 125 | 22 | 1 | 17 | 11 | 24 | 8 | 660 | 296 |
| 8 | LERE | 7 | 2 | 0 | 0 | 78 | 17 | 22 | 3 | 6 | 0 | 11 | 0 | 167 | 27 | 13 | 0 | 3 | 2 | 15 | 0 | 322 | 51 |
| 9 | RIGACHIKUN | 0 | 3 | 0 | 0 | 103 | 38 | 2 | 0 | 2 | 4 | 0 | 0 | 77 | 29 | 18 | 2 | 4 | 0 | 24 | 3 | 230 | 79 |
| 10 | SABON TASHA | 5 | 8 | 1 | 1 | 128 | 164 | 74 | 35 | 13 | 12 | 22 | 19 | 173 | 198 | 21 | 21 | 17 | 15 | 3 | 3 | 457 | 476 |
| 11 | ZARIA | 2 | 3 | 0 | 1 | 201 | 86 | 88 | 27 | 17 | 6 | 11 | 10 | 232 | 143 | 83 | 1 | 0 | 0 | 10 | 1 | 644 | 278 |
| 12 | ZONKWA | 7 | 5 | 1 | 0 | 139 | 70 | 16 | 4 | 8 | 1 | 9 | 1 | 200 | 63 | 10 | 0 | 0 | 0 | 0 | 0 | 390 | 144 |
| | **TOTAL** | **58** | **41** | **7** | **7** | **1,362** | **737** | **413** | **175** | **86** | **38** | **153** | **63** | **2,051** | **877** | **281** | **51** | **60** | **44** | **134** | **41** | **4,605** | **2,075** |

**Source:** Department of Planning, Research & Statistics, MOE, Kaduna

* Records of schools are kept by Schools Divisions. The Local Government Areas in each Division are shown in the Appendix

**Table A4.4: Proportion of female teachers by LGEA and school ownership 2005**

| | | <5 | 5.0-10.0 | 10.0-20.0 | 20-30 | 30-40 | 40-50 | 50> | Total |
|---|---|---|---|---|---|---|---|---|---|
| **PRIMARY** | Public | 0 | 0 | 1 | 5 | 4 | 5 | 6 | 21 |
| | *Percent* | *0* | *0* | *5* | *24* | *19* | *24* | *29* | *100* |
| | Private | 0 | 0 | 1 | 2 | 5 | 5 | 9 | 21 |
| | *Percent* | *0* | *0* | *5* | *10* | *24* | *24* | *43* | *100* |
| **JSS** | Public 2 | | 3 | 9 | 2 | 2 | 1 | 2 | 21 |
| | *Percent* | *10* | *14* | *43* | *10* | *10* | *5* | *10* | *100* |
| | Private | 0 | 0 | 3 | 5 | 2 | 1 | 1 | 12 |
| | *Percent* | *0* | *0* | *25* | *50* | *17* | *8* | *8* | *100* |
| **SSS** | Public 3 | | 2 | 8 | 3 | 2 | 2 | 0 | 20 |
| | *Percent* | *15* | *10* | *40* | *15* | *10* | *10* | *0* | *100* |
| | Private | 0 | 0 | 2 | 6 | 2 | 2 | 0 | 12 |
| | *Percent* | *0* | *0* | *17* | *50* | *17* | *17* | *0* | *100* |

**Table A4.5: Proportion of qualified teachers by LGEA and school ownership 2005**

| | | <10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRIMARY** | Public | 0 | 1 | 8 | 3 | 4 | 6 | 0 | 0 | 0 | 0 | 22 |
| | *Percent* | *0* | *5* | *36* | *14* | *18* | *27* | *0* | *0* | *0* | *0* | *100* |
| | Private | | | | | | | | | | | |
| | *Percent* | | | | | | | | | | | |
| **JSS** | Public 0 | | 0 | 0 | 0 | 0 | 0 | 2 | 6 | 8 | 5 | 21 |
| | *Percent* | *0* | *0* | *0* | *0* | *0* | *0* | *10* | *29* | *38* | *24* | *100* |
| | Private | 0 | 0 | 1 | 1 | 3 | 3 | 1 | 2 | 1 | 0 | 12 |
| | *Percent* | *0* | *0* | *8* | *8* | *25* | *25* | *8* | *17* | *8* | *0* | *100* |
| **SSS** | Public 0 | | 0 | 0 | 0 | 0 | 0 | 2 | 8 | 6 | 4 | 20 |
| | *Percent* | *0* | *0* | *0* | *0* | *0* | *0* | *10* | *40* | *30* | *20* | *100* |
| | Private | 0 | 0 | 1 | 0 | 4 | 3 | 1 | 2 | 1 | 0 | 12 |
| | *Percent* | *0* | *0* | *8* | *0* | *33* | *25* | *8* | *17* | *8* | *0* | *100* |

**Table A4.6: Student-qualified teacher ratios for LGEAs by school ownership 2005**

| | | 0-50 | 50-100 | 100-200 | 200-300 | 300-400 | 400-500 | 500> | Total |
|---|---|---|---|---|---|---|---|---|---|
| **PRIMARY** | Public | 3 | 11 | 7 | 1 | 1 | 0 | 0 | 23 |
| | *Percent* | *13* | *48* | *30* | *4* | *4* | *0* | *0* | *100* |
| | Private | 9 | 9 | 3 | 1 | 0 | 0 | 1 | 23 |
| | Percent | 39 | 39 | 13 | 4 | 0 | 0 | 4 | 100 |
| **JSS** | Public | 4 | 9 | 7 | 1 | 0 | 0 | 0 | 21 |
| | *Percent* | *19* | *43* | *33* | *5* | *0* | *0* | *0* | *100* |
| **SSS** | Public | 6 | 10 | 4 | 0 | 0 | 0 | 0 | 20 |
| | *Percent* | *30* | *50* | *20* | *0* | *0* | *0* | *0* | *100* |

**Table A4.7: Class sizes for LGEAs by school ownership 2005**

| | | 0 to 25 | 25-50 | 50-75 | 75-100 | 100-125 | 125-150 | 150-200 | 200-300 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| **PRIMARY** | Public | 0 | 2 | 6 | 8 | 2 | 1 | 1 | 3 | 23 |
| | *Percent* | *0* | *9* | *26* | *35* | *9* | *4* | *4* | *13* | *100* |
| | Private | 4 | 8 | 2 | 4 | 2 | 2 | 0 | 0 | 22 |
| | Percent | 18 | 36 | 9 | 18 | 9 | 9 | 0 | 0 | 100 |
| **JSS** | Public | 1 | 1 | 5 | 4 | 7 | 1 | 1 | 1 | 21 |
| | *Percent* | *5* | *5* | *24* | *19* | *33* | *5* | *5* | *5* | *100* |
| **SS** | Public | 0 | 6 | 7 | 4 | 3 | 0 | 0 | 0 | 20 |
| | *Percent* | *0* | *30* | *35* | *20* | *15* | *0* | *0* | *0* | *100* |

**Table A4.8: Student-teacher ratios for LGEAs by school ownership 2005**

| | | 0-25 | 25-50 | 50-75 | 75-100 | 100-125 | 125-150 | 150-200 | 200-300 | 300> | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRIMARY** | Public | 5 | 15 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 22 |
| | *percent* | *23* | *68* | *5* | *5* | *0* | *0* | *0* | *0* | *0* | *100* |
| | Private | 18 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 23 |
| | *percent* | *78* | *17* | *4* | *0* | *0* | *0* | *0* | *0* | *0* | *100* |
| **JSS** | Public | 2 | 4 | 3 | 8 | 2 | 2 | 0 | 0 | 0 | 21 |
| | *percent* | *10* | *19* | *14* | *38* | *10* | *10* | *0* | *0* | *0* | *100* |
| **SSS** | Public | 0 | 9 | 4 | 3 | 2 | 0 | 0 | 0 | 0 | 18 |
| | *percent* | *0* | *50* | *22* | *17* | *11* | *0* | *0* | *0* | *0* | *100* |

**Table A4.9: Student-teacher ratios in selected African countries**

| | PRIMARY | SECONDARY |
|---|---|---|
| Benin | 52 | na |
| Burkina Faso | 49 | na |
| Cameroon | 54 | na |
| Cote d'Ivoire | 42 | na |
| Ethiopia | 72 | 54 |
| Gambia | 37 | 42 |
| Ghana | 33 | 19 |
| Kenya | 40 | 32 |
| Mali | 52 | na |
| Nigeria | 36 | 43 |
| Togo | 44 | 34 |

**Source**: UNESCO Global Monitoring Report 2007

**Table A.4.10: Teachers-non-teaching staff ratio by LGEA and school ownership 2005**

| | | <2.0 | 2.0-3.0 | 3.0-4.0 | 4.0-5.0 | 5.0-6.0 | 6.0-7.0 | 7.0-8.0 | 8.0-9.0 | 9.0-10.0 | >10 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRIMARY** | Number LGEA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 23 |
| | Percent | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 |
| | Private Percent | | | | | | | | | | | |
| **JSS** | Number LGEA | 0 | 4 | 6 | 4 | 3 | 1 | 0 | 1 | 0 | 0 | 19 |
| | Percent | 0 | 21 | 32 | 21 | 16 | 5 | 0 | 5 | 0 | 0 | 100 |
| **SS** | Number LGEA | 1 | 8 | 5 | 2 | 3 | 0 | 1 | 0 | 0 | 0 | 20 |
| | Percent | 5 | 40 | 25 | 10 | 15 | 0 | 5 | 0 | 0 | 0 | 100 |

**Table A4.11: Condition of classrooms by type of school, level of schooling and location, 2005**

| | PRIMARY | | | JSS | | | SSS | | |
|---|---|---|---|---|---|---|---|---|---|
| | Good | Minor repair | Major repair | Good | Minor repair | Major repair | Good | Minor repair | Major repair |
| **Public** | | | | | | | | | |
| Rural | 3,378 | 2,250 | 3,205 | 732 | 375 | 457 | 636 | 339 | 385 |
| Urban | 1,446 | 676 | 591 | 503 | 302 | 180 | 476 | 339 | 178 |
| **Private** | | | | | | | | | |
| Rural | 622 | 227 | 153 | 57 | 8 | 13 | 57 | 8 | 13 |
| Urban | 1,485 | 274 | 144 | 306 | 30 | 11 | 293 | 28 | 11 |
| All | 6,931 | 3,427 | 4,093 | 1598 | 715 | 661 | 1462 | 714 | 587 |

**Source**: Education DataBank

**Table A4.12: Student-book ratios at public schools, 2004/05**

| | | 0.0-2.0 | 2.0-5.0 | 5.0-10.0 | 10.0-20.0 | 20.0-30.0 | 30.0-40.0 | 40.0-50.0 | 50.0> | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| **PRIMARY** | Number LGEAs | 4 | 9 | 9 | 1 | 0 | 0 | 0 | 0 | 23 |
| | *Percent* | *17* | *39* | *39* | *4* | *0* | *0* | *0* | *0* | *100* |
| **JSS** | Number LGEAs | 1 | 4 | 4 | 6 | 3 | 2 | 0 | 1 | 21 |
| | *Percent* | *5* | *19* | *19* | *29* | *14* | *10* | *0* | *5* | *100* |
| **SSS** | Total LGEAs | 0 | 2 | 4 | 7 | 2 | 2 | 2 | 1 | 20 |

**Table A4.13: Student repetition rates by LGEAs and school ownership 2005**

| | | <1.0 | 1.0-2.0 | 2.0-3.0 | 3.0-5.0 | 5.0-10.0 | 10> | Total |
|---|---|---|---|---|---|---|---|---|
| **PRIMARY** | Male | 0 | 1 | 5 | 10 | 7 | 0 | 23 |
| | *Percent* | *0* | *4* | *22* | *43* | *30* | *0* | *100* |
| | Female | 0 | 0 | 6 | 8 | 8 | 1 | 23 |
| | *Percent* | *0* | *0* | *26* | *35* | *35* | *4* | *100* |
| **JSS** | Male | 4 | 5 | 2 | 4 | 1 | 1 | 17 |
| | *Percent* | *24* | *29* | *12* | *24* | *6* | *6* | *100* |
| | Female | 8 | 4 | 5 | 2 | 2 | 2 | 23 |
| | *Percent* | *35* | *17* | *22* | *9* | *9* | *9* | *100* |
| **SS** | Male | 2 | 5 | 5 | 2 | 0 | 1 | 15 |
| | Percent | 13 | 33 | 33 | 13 | 0 | 7 | 100 |
| | Female | | | | | | | |
| | Percent | | | | | | | |

**Table A4.14: School satisfaction ratings of household survey respondents for children attending school aged 6-11 and 12-17 by gender, 2006**

| | AGE 6-11 | | AGE 12-17 | |
|---|---|---|---|---|
| | **Female** | **Male** | **Female** | **Male** |
| No problem/satisfied | 55 | 54 | 58 | 58 |
| Lack of books | 15 | 16 | 13 | 12 |
| Poor teaching | 10 | 10 | 10 | 8 |
| Lack of teachers | 9 | 8 | 8 | 7 |
| Poor facilities | 23 | 23 | 21 | 21 |
| High fees | 7 | 6 | 7 | 7 |
| Other | 2 | 3 | 3 | 3 |

**Source**: CWIQ 2006

# ANNEX TABLES SERIES A6

**Table A6.1: Projected enrolments for primary and secondary schooling 2005/06-2015/16 (rounded '000)**

| | | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primary | Scenario 1 | Female | 410562 | 446360 | 382834 | 410210 | 439522 | 471194 | 496573 | 521050 | 611769 | 646449 | 679220 |
| | | Male | 524678 | 583255 | 622051 | 649028 | 566990 | 585430 | 588989 | 592506 | 601548 | 616720 | 733578 |
| | | Total | 935240 | 1029615 | 1004885 | 1059238 | 1006511 | 1056624 | 1085562 | 1113556 | 1213318 | 1263169 | 1412799 |
| JSS | Scenario 1 | Female | 41283 | 44561 | 60646 | 87552 | 120480 | 154997 | 179771 | 203329 | 155217 | 170794 | 189714 |
| | | Male | 67926 | 69895 | 91391 | 130591 | 180920 | 234163 | 277428 | 310641 | 326041 | 333266 | 239305 |
| | | Total | 109209 | 114456 | 152038 | 218142 | 301400 | 389160 | 457199 | 513970 | 481257 | 504060 | 429019 |
| | Scenario 2 | Female | 41283 | 43387 | 55669 | 75244 | 97419 | 117462 | 134451 | 156572 | 124417 | 150087 | 182448 |
| | | Male | 67926 | 68209 | 84323 | 112675 | 146814 | 178242 | 208255 | 239571 | 268093 | 292419 | 218326 |
| | | Total | 109209 | 111597 | 139992 | 187919 | 244233 | 295704 | 342706 | 396143 | 392510 | 442506 | 400774 |
| SSS | Scenario 1 | Female | 27242 | 28707 | 28131 | 27381 | 28941 | 38210 | 53715 | 71448 | 87246 | 97111 | 105001 |
| | | Male | 41864 | 47322 | 48000 | 47602 | 48499 | 62351 | 86068 | 113852 | 138435 | 155161 | 164302 |
| | | Total | 69106 | 76029 | 76131 | 74983 | 77440 | 100562 | 139782 | 185301 | 225681 | 252272 | 269302 |
| | Scenario 2 | Female | 27242 | 28707 | 28131 | 27381 | 28270 | 35263 | 46425 | 58111 | 66473 | 72700 | 80616 |
| | | Male | 41864 | 47322 | 48000 | 47602 | 47389 | 57658 | 74514 | 92776 | 105812 | 116571 | 126369 |
| | | Total | 69106 | 76029 | 76131 | 74983 | 75659 | 92921 | 120939 | 150887 | 172285 | 189271 | 206986 |
| **Scen 1 JSS** | | | | | | | | | | | | | |
| **Female** | | | | | | | | | | | | | |
| JS1 | | | 14379 | 18493 | 31447 | 42682 | 53189 | 66346 | 68693 | 76642 | 16133 | 81143 | 92643 |
| JS2 | | | 14148 | 13247 | 17037 | 29133 | 40131 | 50654 | 63034 | 66105 | 74705 | 15928 | 81143 |
| JS3 | | | 12756 | 12821 | 12162 | 15737 | 27160 | 37997 | 48043 | 60582 | 64379 | 73723 | 15928 |
| JSSTOTAL | | | 41283 | 44561 | 60646 | 87552 | 120480 | 154997 | 179771 | 203329 | 155217 | 170794 | 189714 |
| SECTOT | | | 68525 | 73268 | 88777 | 114933 | 149421 | 193207 | 233486 | 274777 | 242462 | 267905 | 294715 |
| SSSTOTAL | | | 27242 | 28707 | 28131 | 27381 | 28941 | 38210 | 53715 | 71448 | 87246 | 97111 | 105001 |
| **Male** | | | | | | | | | | | | | |
| JS1 | | | 21466 | 26758 | 43949 | 61179 | 77637 | 97150 | 105612 | 111447 | 111661 | 111726 | 16255 |
| JS2 | | | 22335 | 21437 | 26576 | 43526 | 60809 | 77385 | 95982 | 104659 | 110775 | 111324 | 111726 |
| JS3 | | | 24125 | 21701 | 20866 | 25886 | 42473 | 59629 | 75833 | 94535 | 103605 | 110215 | 111324 |
| JSSTOTAL | | | 67926 | 69895 | 91391 | 130591 | 180920 | 234163 | 277428 | 310641 | 326041 | 333266 | 239305 |
| SECTOT | | | 109790 | 117217 | 139392 | 178192 | 229419 | 296515 | 363495 | 424493 | 464476 | 488427 | 403607 |
| SSSTOTAL | | | 41864 | 47322 | 48000 | 47602 | 48499 | 62351 | 86068 | 113852 | 138435 | 155161 | 164302 |

**Table A6.1(cont.): Projected enrolments for primary and secondary schooling 2005/06-2015/16 (rounded '000)**

| SCEN 2 | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Female** | | | | | | | | | | | |
| JS1 | 14379 | 17319 | 27527 | 34940 | 40714 | 47483 | 52524 | 62669 | 14107 | 75877 | 92643 |
| JS2 | 14148 | 13247 | 15980 | 25528 | 32888 | 38814 | 45113 | 50545 | 61085 | 13928 | 75877 |
| JS3 | 12756 | 12821 | 12162 | 14776 | 23817 | 31164 | 36814 | 43358 | 49225 | 60282 | 13928 |
| JSSTOTAL | 41283 | 43387 | 55669 | 75244 | 97419 | 117462 | 134451 | 156572 | 124417 | 150087 | 182448 |
| SECTOT | 68525 | 72095 | 83800 | 102625 | 125689 | 152725 | 180876 | 214683 | 190890 | 222787 | 263065 |
| SSSTOTAL | 27242 | 28707 | 28131 | 27381 | 28270 | 35263 | 46425 | 58111 | 66473 | 72700 | 80616 |
| **Male** | | | | | | | | | | | |
| JS1 | 21466 | 25072 | 38525 | 50191 | 59607 | 69800 | 81024 | 91357 | 97803 | 104564 | 16255 |
| JS2 | 22335 | 21437 | 24932 | 38186 | 49930 | 59462 | 68961 | 80293 | 90806 | 97508 | 104564 |
| JS3 | 24125 | 21701 | 20866 | 24298 | 37277 | 48980 | 58270 | 67922 | 79484 | 90348 | 97508 |
| JSSTOTAL | 67926 | 68209 | 84323 | 112675 | 146814 | 178242 | 208255 | 239571 | 268093 | 292419 | 218326 |
| SECTOT | 109790 | 115532 | 132323 | 160277 | 194204 | 235900 | 282769 | 332347 | 373905 | 408990 | 344695 |
| SSSTOTAL | 41864 | 47322 | 48000 | 47602 | 47389 | 57658 | 74514 | 92776 | 105812 | 116571 | 126369 |

**Table A6.2: Projected salary and learning materials expenditures for primary and secondary schooling 2005/06-2015/16 (N million rounded)**

| **PROJECTED ENROLMENTS** | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Primary | | 935 | 1030 | 1005 | 1059 | 1007 | 1057 | 1086 | 1114 | 1213 | 1263 | 1413 |
| JSS | Scenario 1 | 109 | 114 | 152 | 218 | 301 | 389 | 457 | 514 | 481 | 504 | 429 |
| | Scenario 2 | 109 | 112 | 140 | 188 | 244 | 296 | 343 | 396 | 393 | 443 | 401 |
| SSS | Scenario 1 | 69 | 76 | 76 | 75 | 77 | 101 | 140 | 185 | 226 | 252 | 269 |
| | Scenario 2 | 69 | 76 | 76 | 75 | 76 | 93 | 121 | 151 | 172 | 189 | 207 |
| **Public enrolments** | | | | | | | | | | | | |
| | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Primary | | 859 | 947 | 924 | 973 | 925 | 971 | 998 | 1024 | 1115 | 1161 | 1299 |
| JSS | Scenario 1 | 104 | 109 | 145 | 208 | 287 | 370 | 435 | 489 | 458 | 480 | 408 |
| | Scenario 2 | 104 | 107 | 133 | 179 | 232 | 282 | 327 | 377 | 374 | 422 | 382 |
| SSS | Scenario 1 | 65 | 71 | 71 | 70 | 72 | 95 | 131 | 173 | 212 | 236 | 252 |
| | Scenario 2 | 65 | 71 | 71 | 70 | 71 | 87 | 113 | 141 | 161 | 177 | 194 |
| **PROJECTED STUDENT-TEACHER RATIOS** | | | | | | | | | | | | |
| **NO CHANGE PTRs** | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| **Primary** | | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |
| **JSS** | | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| **SSS** | | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| | | | | | | | | | | | | |
| **Target PTRs** | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| **Primary** | | 33 | 33 | 34 | 35 | 36 | 36 | 36 | 37 | 38 | 38 | 39 |
| **JSS** | | 35 | 36 | 37 | 38 | 40 | 41 | 39 | 37 | 35 | 33 | 31 |
| **SSS** | | 24 | 26 | 28 | 30 | 32 | 33 | 31 | 29 | 28 | 27 | 26 |
| **PROJECTED TEACHER REQUIREMENTS** | | | | | | | | | | | | |
| **No change PTRs ('000)** | | | | | | | | | | | | |
| | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Primary | | 26.04 | 28.68 | 27.99 | 29.49 | 28.04 | 29.44 | 30.24 | 31.02 | 33.78 | 35.17 | 39.35 |
| JSS | Scenario 1 | 2.96 | 3.10 | 4.13 | 5.93 | 8.19 | 10.58 | 12.43 | 13.98 | 13.08 | 13.71 | 11.67 |
| | Scenario 2 | 2.96 | 3.05 | 3.81 | 5.11 | 6.64 | 8.05 | 9.33 | 10.77 | 10.69 | 12.05 | 10.91 |
| SSS | Scenario 1 | 2.69 | 2.97 | 2.97 | 2.93 | 3.01 | 3.94 | 5.47 | 7.22 | 8.82 | 9.84 | 10.50 |
| | Scenario 2 | 2.69 | 2.97 | 2.97 | 2.93 | 2.97 | 3.63 | 4.72 | 5.90 | 6.72 | 7.38 | 8.08 |

**Table A6.2(cont.): Projected salary and learning materials expenditures for primary and secondary schooling 2005/06-2015/16 (N million rounded)**

**Target PTRs ('000)**

| | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primary | | 26.04 | 28.68 | 27.16 | 27.81 | 25.71 | 26.98 | 27.72 | 27.67 | 29.34 | 30.54 | 33.30 |
| JSS | Scenario 1 | 2.96 | 3.01 | 3.91 | 5.46 | 7.16 | 9.03 | 11.16 | 13.23 | 13.08 | 14.54 | 13.17 |
| | Scenario 2 | 2.96 | 2.96 | 3.60 | 4.71 | 5.81 | 6.87 | 8.37 | 10.19 | 10.69 | 12.78 | 12.31 |
| SSS | Scenario 1 | 2.69 | 2.74 | 2.54 | 2.34 | 2.25 | 2.87 | 4.23 | 5.98 | 7.56 | 8.75 | 9.69 |
| | Scenario 2 | 2.69 | 2.74 | 2.54 | 2.34 | 2.23 | 2.64 | 3.66 | 4.88 | 5.76 | 6.56 | 7.46 |

**Projected average annual teacher salary with increase of 2 percent pa (N'000)**

| | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Primary | 151 | 154 | 157 | 160 | 163 | 167 | 170 | 173 | 177 | 180 | 184 |
| Secondary | 317 | 323 | 330 | 336 | 343 | 350 | 357 | 364 | 371 | 379 | 386 |

**PROJECTED TEACHER COSTS**

| **No change PTRs** | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primary | | 3.93 | 4.42 | 4.39 | 4.72 | 4.57 | 4.92 | 5.14 | 5.37 | 5.98 | 6.33 | 7.24 |
| JSS | Scenario 1 | 0.94 | 1.00 | 1.36 | 1.99 | 2.81 | 3.70 | 4.44 | 5.09 | 4.85 | 5.20 | 4.50 |
| | Scenario 2 | 0.94 | 0.98 | 1.26 | 1.72 | 2.28 | 2.82 | 3.33 | 3.92 | 3.97 | 4.57 | 4.21 |
| SSS | Scenario 1 | 0.85 | 0.96 | 0.98 | 0.98 | 1.03 | 1.38 | 1.95 | 2.63 | 3.27 | 3.73 | 4.05 |
| | Scenario 2 | 0.85 | 0.96 | 0.98 | 0.98 | 1.02 | 1.27 | 1.69 | 2.15 | 2.49 | 2.80 | 3.12 |
| **Target PTRs** | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Primary | | 3.93 | 4.42 | 4.26 | 4.45 | 4.19 | 4.51 | 4.71 | 4.79 | 5.19 | 5.50 | 6.13 |
| JSS | Scenario 1 | 0.94 | 0.97 | 1.29 | 1.84 | 2.46 | 3.16 | 3.98 | 4.81 | 4.85 | 5.51 | 5.09 |
| | Scenario 2 | 0.94 | 0.96 | 1.19 | 1.58 | 1.99 | 2.41 | 2.99 | 3.71 | 3.97 | 4.84 | 4.75 |
| SSS | Scenario 1 | 0.85 | 0.88 | 0.84 | 0.79 | 0.77 | 1.00 | 1.51 | 2.18 | 2.81 | 3.31 | 3.74 |
| | Scenario 2 | 0.85 | 0.88 | 0.84 | 0.79 | 0.76 | 0.92 | 1.31 | 1.78 | 2.14 | 2.49 | 2.88 |

**PROJECTED LEARNING MATERIALS COSTS**

| **Learning materials** | | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primary | | 2.28 | 2.51 | 2.45 | 2.58 | 2.45 | 2.57 | 2.64 | 2.71 | 2.95 | 3.08 | 3.44 |
| JSS | Scenario 1 | 0.27 | 0.29 | 0.38 | 0.55 | 0.76 | 0.98 | 1.15 | 1.30 | 1.21 | 1.27 | 1.08 |
| | Scenario 2 | 0.27 | 0.28 | 0.35 | 0.47 | 0.62 | 0.75 | 0.87 | 1.00 | 0.99 | 1.12 | 1.01 |
| SSS | Scenario 1 | 0.52 | 0.57 | 0.57 | 0.56 | 0.58 | 0.76 | 1.05 | 1.39 | 1.69 | 1.89 | 2.02 |
| | Scenario 2 | 0.52 | 0.57 | 0.57 | 0.56 | 0.57 | 0.70 | 0.91 | 1.13 | 1.29 | 1.42 | 1.55 |

**Table A6.3: Expenditure projections for construction and furniture to accommodate additional enrolments, 2006/07-2015/16, Kaduna State (N billion)**

| **ANNUAL ENROLMENT INCREASE (rounded '000)** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Primary | | 95 | -25 | 54 | -52 | 50 | 29 | 28 | 99 | 50 | 150 |
| JSS | Scenario 1 | 5 | 38 | 66 | 83 | 88 | 68 | 57 | -33 | 23 | -75 |
| | Scenario 2 | 3 | 28 | 48 | 56 | 52 | 47 | 53 | -3 | 50 | -42 |
| SSS | Scenario 1 | 7 | 0 | -1 | 2 | 24 | 39 | 45 | 41 | 26 | 17 |
| | Scenario 2 | 7 | 0 | -1 | 1 | 17 | 28 | 30 | 21 | 17 | 18 |
| **NEW CLASSROOMS** | | | | | | | | | | | |
| | | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Primary | | 3.33 | -0.88 | 1.89 | -1.82 | 1.75 | 1.02 | 0.98 | 3.47 | 1.75 | 5.25 |
| JSS | Scenario 1 | 0.18 | 1.33 | 2.31 | 2.91 | 3.08 | 2.38 | 2.00 | -1.16 | 0.81 | -2.63 |
| | Scenario 2 | 0.11 | 0.98 | 1.68 | 1.96 | 1.82 | 1.65 | 1.86 | -0.11 | 1.75 | -1.47 |
| SSS | Scenario 1 | 0.25 | 0.00 | -0.04 | 0.07 | 0.84 | 1.37 | 1.58 | 1.44 | 0.91 | 0.60 |
| | Scenario 2 | 0.25 | 0.00 | -0.04 | 0.04 | 0.60 | 0.98 | 1.05 | 0.74 | 0.60 | 0.63 |
| **TOILETS** | | | | | | | | | | | |
| | | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Primary | | 0.38 | -0.10 | 0.22 | -0.21 | 0.20 | 0.12 | 0.11 | 0.40 | 0.20 | 0.60 |
| JSS | Scenario 1 | 0.02 | 0.15 | 0.26 | 0.33 | 0.35 | 0.27 | 0.23 | -0.13 | 0.09 | -0.30 |
| | Scenario 2 | 0.01 | 0.11 | 0.19 | 0.22 | 0.21 | 0.19 | 0.21 | -0.01 | 0.20 | -0.17 |
| SSS | Scenario 1 | 0.03 | 0.00 | 0.00 | 0.01 | 0.10 | 0.16 | 0.18 | 0.16 | 0.10 | 0.07 |
| | Scenario 2 | 0.03 | 0.00 | 0.00 | 0.00 | 0.07 | 0.11 | 0.12 | 0.08 | 0.07 | 0.07 |
| **STUDENT FURNITURE** | | | | | | | | | | | |
| | | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Primary | | 0.38 | -0.10 | 0.22 | -0.21 | 0.20 | 0.12 | 0.11 | 0.40 | 0.20 | 0.60 |
| JSS | Scenario 1 | 0.02 | 0.15 | 0.26 | 0.33 | 0.35 | 0.27 | 0.23 | -0.13 | 0.09 | -0.30 |
| | Scenario 2 | 0.01 | 0.11 | 0.19 | 0.22 | 0.21 | 0.19 | 0.21 | -0.01 | 0.20 | -0.17 |
| SSS | Scenario 1 | 0.03 | 0.00 | 0.00 | 0.01 | 0.10 | 0.16 | 0.18 | 0.16 | 0.10 | 0.07 |
| | Scenario 2 | 0.03 | 0.00 | 0.00 | 0.00 | 0.07 | 0.11 | 0.12 | 0.08 | 0.07 | 0.07 |
| **TEACHER FURNITURE** | | | | | | | | | | | |
| | | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Primary | | 0.02 | -0.01 | 0.01 | -0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.01 | 0.03 |
| JSS | Scenario 1 | 0.00 | 0.01 | 0.01 | 0.02 | 0.02 | 0.01 | 0.01 | -0.01 | 0.00 | -0.02 |
| | Scenario 2 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.01 | -0.01 |
| SSS | Scenario 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 |
| | Scenario 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 |

**Table A6.3 (cont.): Expenditure projections for construction and furniture to accommodate additional enrolments, 2006/07-2015/16, Kaduna State (N billion)**

**LIBRARY**

| | | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Primary | | 0.95 | -0.25 | 0.54 | -0.52 | 0.5 | 0.29 | 0.28 | 0.99 | 0.5 | 1.5 |
| JSS | Scenario 1 | 0.05 | 0.38 | 0.66 | 0.83 | 0.88 | 0.68 | 0.57 | -0.33 | 0.23 | -0.75 |
| | Scenario 2 | 0.03 | 0.28 | 0.48 | 0.56 | 0.52 | 0.47 | 0.53 | -0.03 | 0.5 | -0.42 |
| SSS | Scenario 1 | 0.07 | 0 | -0.01 | 0.02 | 0.24 | 0.39 | 0.45 | 0.41 | 0.26 | 0.17 |
| | Scenario 2 | 0.07 | 0 | -0.01 | 0.01 | 0.17 | 0.28 | 0.3 | 0.21 | 0.17 | 0.18 |

**TOTAL**

| | | 2006/07 | 2007/08 | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Primary | Scenario 1 | 5.05 | -1.33 | 2.87 | -2.77 | 2.66 | 1.54 | 1.49 | 5.27 | 2.66 | 7.98 |
| JSS | Scenario 1 | 0.27 | 2.02 | 3.51 | 4.42 | 4.68 | 3.62 | 3.03 | -1.76 | 1.22 | -3.99 |
| | Scenario 2 | 0.16 | 1.49 | 2.55 | 2.98 | 2.77 | 2.50 | 2.82 | -0.16 | 2.66 | -2.23 |
| SSS | Scenario 1 | 0.37 | 0.00 | -0.05 | 0.11 | 1.28 | 2.07 | 2.39 | 2.18 | 1.38 | 0.90 |
| | Scenario 2 | 0.37 | 0.00 | -0.05 | 0.05 | 0.90 | 1.49 | 1.60 | 1.12 | 0.90 | 0.96 |