

GHANA

**EDUCATION FOR ALL
(EFA 2000)**

**ASSESSMENT OF PROGRESS
GHANA COUNTRY REPORT**

CONTENTS

List of Abbreviations and Acronyms.....	iv
Preface	v
Executive Summary.....	vi
Chapter 1: Introduction.....	1
Chapter 2: Early childhood care and development.....	5
Chapter 3: Basic education	8
3.1 Enrolments.....	8
3.1.1 Primary school	8
3.1.1.1 Geographical disparities in enrolments	9
3.1.1.2 Enrolments in private primary schools	10
3.1.2 Junior secondary school.....	13
3.2. Intake of children into primary school.....	13
3.3. Gender.....	15
3.4. Internal efficiency.....	20
3.4.1. Repetition.....	20
3.4.2. Coefficient of efficiency	21
3.5. Financing of education	23
3.6. Relevance of the basic education curriculum	25
3.7. Administration and management.....	26
Chapter 4: Learning Achievement.....	28
4.1 The criterion-referenced test (CRT)	28
4.2 The BECE.....	31
4.3. Causes of low performance and internal efficiency in public basic schools	32
4.3.1. Teacher qualifications.....	32
4.3.2 Pupil-Teacher Ratios	35
4.3.3 Attendance and punctuality	36
4.3.4 Availability of textbooks	37
4.3.5 Inspection and management of teachers	38
4.4 Conclusion.....	39
Chapter 5: Adult literacy and training	40
Chapter 6: Training in essential skills	43
6.1 Formal technical and vocational education and training	43
6.2 Apprenticeship.....	45
Chapter 7: Conclusion	49
Selected Bibliography.....	51
Appendix 1: EFA core indicators	53
Appendix 2: Assumptions for school-age population and enrolment projections.....	54
Appendix 3: Selected indicators	56

Boxes

Box 0-1.1: Data problems in education	2
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Tables

Table 2.1: <u>Statistics on pre-school and personnel in public nursery/kindergarten, 1996</u>	6
Table 3.2: <u>Private primary school enrolments</u>	11
Table 3.3: <u>Junior secondary school enrolments, 1990 to 1996</u>	13
Table 4.1: <u>National CRT results by percentage mean scores (public schools)</u>	29
Table 4.5: <u>BECE results, 1990/91 to 1995/96</u>	31
Table 6.1: <u>Registered technical and vocational training institutes, 1994</u>	43

List of Abbreviations and Acronyms

AIDS	Acquired Immune Deficiency Syndrome
CIDA	Canadian International Development Agency
CRT	Criterion-Referenced Test
DACF	District Assemblies Common Fund
ECD	Early Childhood Care and Development
EFA	Education for All
EMIS	Education Management Information System
fCUBE	Free Compulsory Basic Education
GER	Gross Enrolment Ratio
GES	Ghana Education Service
GNCC	Ghana National Commission on Children
GPI	Gender Parity Index
HIV	Human Immuno-deficiency Virus
ISSER	Institute for Economic, Statistical and Social Research
JSS	Junior secondary school
LFSP	Literacy and Functional Skills Project
MESW	Ministry of Employment and Social Welfare
MLGRD	Ministry of Local Government & Rural Development
MOE	Ministry of Education
NFLP	National Functional Literacy Programme
NGO	Non-Governmental Organisations
PPAG	Planned Parenthood Association of Ghana
SMC	School Management Committee
SRIMPRD	Statistics, Research, Information Management and Public Relations Division (Ministry of Education)
SSA	Sub-Saharan Africa
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific & Cultural Organisation
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development

Preface

The Education for All (EFA) Year 2000 Assessment was proposed at the 1990 Jomtien Conference to provide countries that had participated in the Conference the opportunity to measure their progress towards attaining EFA goals that they had set for themselves during the decade of the 1990s. These goals are identified in the Jomtien Framework for Action for Action to Meet Basic Learning Needs as:

- (a) Expansion of early childhood care and developmental activities, including family and community interventions, especially for poor, disadvantaged and disabled children;
- (b) Universal access to, and completion of, primary education (or whatever higher level of education is considered as “basic”) by the year 2000;
- (c) Improvement in learning achievement such as agreed percentage of an appropriate age cohort (e.g. 80 per cent of 14 year-olds) attains or surpasses a defined level of necessary learning achievement;
- (d) Reduction of the adult illiteracy rate (the appropriate age group to be determined in each country) to, say, one-half its 1990 level by the year 2000, with sufficient emphasis on female literacy to significantly reduce the current disparity between male and female illiteracy rates;
- (e) Expansion of provision of basic education and training in other essential skills required by youth and adults, with programme effectiveness assessed in terms of behavioural changes and impacts on health, employment and productivity;
- (f) Increased acquisition by individuals and families of the knowledge, skills and values required for better living and sound and sustainable development made available through all education channels including the mass media, other forms of modern and traditional communication, and social action, with effectiveness assessed in terms of behavioural change. (*Education for All. The Year 2000 Assessment. General Guidelines, p. 4*).

This Assessment reviews and evaluates progress in Ghana in these six areas.

Executive Summary

The purpose of the Assessment is to review progress and trends since the Jomtien Conference toward addressing in Ghana the commitments that were made about improving early childhood care and development, access to and completion of basic education, learning achievement, adult literacy, training in essential skills, and education for better life. The Assessment is based on an analysis of trends in key indicators but is handicapped by the quality of available data on the indicators. Consequently, some of the data cited in this report should be interpreted as being indicative rather than definitive. Nonetheless, an inescapable conclusion is that serious problems in access, quality and management of the educational system exist.

Early childhood care and development

There is a growing demand for the services provided by early childhood care and development (ECD) institutions and pre-schools. This is demonstrated by the rapid expansion in the number of ECD institutions and pre-schools that has occurred since 1992. In this respect, the number of public and private kindergartens increased by 3 percent and 27 percent respectively, between 1993 and 1996. In 1996, there were 5,441 public kindergartens and 3,742 registered private establishments (comprising 2,174 nurseries and kindergartens, and 1,568 day care centres). A striking feature is that the private sector provided about 41 percent of all ECD establishments. This reflects the fact that most parents who demand these services can afford to pay for them.

Early childhood care and pre-school education is neither formally integrated into basic education nor compulsory at present. A comprehensive policy on ECD that is designed to establish an integrated, holistic and inter-sectoral approach to ECD is currently being drafted for consideration by Parliament. The policy proposes distinct roles for the management and administration of the sub-sector to the MOE and other major stakeholder institutions like the Ministry of Employment and Social Welfare. Once enacted into law and actively enforced by the MOE and its partner institutions, the policy will streamline some of the present weaknesses that characterise the management of ECD programmes. **The MOE should seek to more vigorously address how it can help to develop and strengthen the ECD sub-sector. A relatively simple contribution would be to better regulate the training of teachers and childcare workers. More sophisticated initiatives would be to enhance the linkages between the ECD sub-sector and other educational sub-sectors.**

Basic education

Enrolments

While primary school enrolment has been increasing in absolute terms during the 1990s, the proportional participation of children in primary schooling declined during the decade. The proportion of pupils of all ages enrolled in Primary 1 to Primary 6 relative to the population of 6-11 year olds, i.e. the gross enrolment ratio (GER), declined from 79.3 percent in 1990/91 to 76.5 percent in 1996/97. Hence the GER in 1996/97 was even lower than its level of 77.3 percent a decade earlier in 1986/87. Thus Ghana has fallen well short of the target of achieving universal primary enrolment by the year 2000.

The three regions in the northern part of the country had enrolment rates that, at well below 60 percent, were substantially below the national average. Indeed the low GERs in these three regions largely account for the moderate level of the national primary GER. The disparity between northern Ghana and other parts of the country has persisted from before independence. Sometimes the low enrolment rates have been exacerbated by such phenomena as ethnic conflict. However, the major explanatory factors for the trends in regional and national enrolments include poverty, the direct and indirect costs of education, the rate of population growth and perceptions of the advantages that education confers on job seekers in the labour market.

Private primary school enrolments more than doubled from about 142,000 in 1990 to over 306,000 in 1996. A major explanatory factor for the growth in private schooling is that private schools generally perform better than public schools because teaching and learning in the former tends to be superior to that in the latter. Two regions, Greater Accra and Ashanti, together accounted for nearly three-quarters of private enrolments. An explanation for the pre-eminence of these regions in private schooling can be found in the fact that they host the two largest cities in Ghana: Accra, the country's capital, and Kumasi, the second city.

The national GER in JSS rose from 54.5 percent in 1990 to 58.6 percent of children aged 12 to 14 years in 1996. Thus while there had been modest improvement in the GER during the period, about half the population of children of JSS age were not enrolled in schools at this level. Again, there is a substantial disparity between the enrolment ratios of the regions in the north and those in other parts of the country. The average gross enrolment rate in the three regions during the period, at about 28 percent, was a little less than half of the national average rate of about 58 percent.

Primary school intakes

The proportion of children of school going age that entered the first grade of primary school diminished from 1990 to 1996. Perhaps reflecting the rapid rate of growth of the population coupled with an inadequate numbers of schools, intake rates were even higher in 1986 than they were a decade later. New entrants of all ages to Primary 1 represented about 85 percent of the official primary school entrance age population in 1996, having fallen from around 93 percent at the beginning of the decade, with the northern regions being the poorest performers. The lowest achiever was the Northern Region, which recorded an intake rate of 67.5 percent of its official primary school entrance age population in 1996.

The poor intake rates reflect, among other things, the severe constraints in service provision, especially in the northern parts of Ghana, where rural children frequently have to walk quite considerable distances to school. This issue has particular significance since a major plank of the MOE strategy to increase enrolments is to improve the intake rates of pupils of the official school entrance age population.

Gender disparity

There is a significant disparity between the intake and enrolment rates of boys and girls in basic education. Substantially more boys participate in schooling than girls. For example, the gross enrolment ratio for male children in primary school was 86.7 percent in 1990 compared

to a rate of about 72 percent for girls. However, while the male GER had fallen to 81.5 percent by 1996, the female GER had remained relatively stable at 71.5 percent. Thus, the gender parity index (GPI) improved from 83 percent to 88 percent over the period 1990/91 to 1996/97. Similarly, in terms of intakes into P1, the GPI has improved from 88 percent in 1990 to 91 percent in 1996.

Gender parity in all three northern regions is significantly below the national average in both primary and junior secondary schools. However, as in other parts of the country the overall trend in the north reflects improvement in the reduction of gender disparity during the 1990s.

Internal efficiency

Repetition rates in primary school increased during the 1990s, reflecting a worsening of the internal efficiency of schooling. The average repetition rate for pupils in primary grades 1 to 5 rose from 3.3 percent in 1990 to 4 percent in 1995.

The coefficient of efficiency is disappointingly low, reflecting the unduly long time that is required to graduate children from P6 in Ghana. In 1995 it took on average more than twice the number of years than ideal for pupils to graduate from P6. This represented a deterioration of internal efficiency in the educational system and a 26 percent increase in the amount of time that was required to graduate pupils from P6 in 1990. Gender disparity is significant: at 50.3 percent the average coefficient of efficiency for boys in the country in 1995 is nearly 20 percent better than the coefficient of 42.2 percent for girls.

Financing

The main source of financing of the education sector is the central government. However, households also contribute substantially to funding education, accounting for about 23 percent of the total spending on education, including private schooling. Government spending on basic education for the period 1993-97 averaged 2.6 percent of GNP and 16 percent of all government spending. The bulk of education spending, averaging over 90 percent per annum, finances the recurrent budget, nearly of which goes to pay for personnel costs. **The MOE should therefore more vigorously seek to find ways in which it can redistribute its expenditures to ensure that more resources are allocated to critical non-wage educational inputs such as books and other school supplies.**

Spending by donors is also significant and is equivalent to about 15 percent of total government spending. Donor financing forms the major part of the education development budget. The other major source of funds for capital expenditure is the District Assembly Common Fund (DACF). Through utilisation of the DACF, District Assemblies have been increasingly involved in the provision of education infrastructure since 1993.

Mobilisation of the resources required to finance education poses a considerable challenge. Central government is unable to bear the full costs of funding education unaided and, while continuing to rely on external sources for assistance, is now explicitly seeking to diversify domestic sources of funding. A particularly popular approach is cost sharing between governments and communities, which has been a customary practice pre-dating independence. Families and communities, especially in rural areas, are frequently required to

contribute to efforts to expand education by bearing not only the direct costs of their children's attendance but also the costs of building school facilities.

Relevance of the curriculum

The formal education system has traditionally been predominantly geared toward preparing people for wage employment in the formal sector. However, the educational reforms initiated in 1987 aim to better align the curriculum of the school system with the skill requirements of an economy that is predominantly agricultural and with a large informal sector. Nonetheless, in practice many public schools tend to negate the life experience of many children, especially those of poor parents who earn their livelihood from agriculture or the informal sector. Such practice stultifies the growth potential of several children instead of recognising and developing their talents and the skills that are relevant to their lives.

The majority of school-leavers enter the labour market with poor skills for employment and little hope of securing wage employment. This is as true for the children of both the poor and some of the non-poor. In such circumstances several poor households decide not to enrol their children and choose instead to send them to work or perform unpaid household labour.

Administration and management

A fundamental weakness within the education system that the MOE has recognised is the generally weak organisational capacity within the system for effective management and administration. The institutional capacity in such important areas as policy, administration, financial management, curriculum development, performance evaluation, teacher training, materials development and data and information collection and management is still inadequate. Consequently, the MOE has been unable to effectively resolve the major systemic problems in the sector such as misallocation and maldistribution of resources; poor quality of school management; shortages, absenteeism and poor distribution of teachers; inadequate supplies of teaching materials; and the inadequate relevance of the curricula to the lives and conditions in which people live.

Learning achievement

Trends in the quality of education in recent years have been a major cause for increasing concern about the competence of public basic schools. The disappointing performance at the basic level of education and the magnitude of the challenge of improving the quality of instruction is graphically illustrated by the results on the criterion-referenced test (CRT) that has been conducted in the 1990s on samples of primary 6 pupils. Indeed, the saddest commentary on the state of education during the 1990s is the extraordinarily low pass rates that have been achieved by pupils on the CRT since this measure was instituted in 1992. So far, substantially fewer than 10 percent of national samples of pupils have demonstrated satisfactory competence on tests in English and Mathematics in each year the tests have been administered. Disappointing results have also been achieved on the Basic Education Certificate Examination (BECE) during the 1990s.

Causes of low performance and poor efficiency

Several weaknesses and deficiencies within the educational system contribute to the poor performance of pupils on the CRT and BECE as well as its low internal efficiency. These include, for example, the quality and supervision of teachers, the actual school attendance of pupils, and the availability of teaching and learning materials.

The quality of teachers and teacher training is deficient. Particular weaknesses in teacher training that have been identified include:

- insufficient training in teaching methodologies and practical teaching but an overemphasis on academic content in what is taught and tested in teacher training colleges;
- too little exposure of pupil teachers to schools and classroom management practices;
- inadequate differentiation in training colleges between primary school teaching, where teachers must teach all subjects in the curriculum, and junior secondary school teaching where subject teaching of up to about 3 subjects is the norm; and
- poor preparation of teachers to handle the new directions in the educational curriculum that are being designed as part of the current educational reforms.

Attendance and punctuality are necessary conditions for effective learning and the efficient running and supervision of schools. In all, teacher and pupil attendance at school has been generally poor or erratic, thereby compromising the depth and breadth of learning, especially in the rural areas. Classes typically commence late though closing time is strictly upheld, resulting in the loss of instructional time and teacher/pupil contact hours. Other factors that reduce instructional time are the events and functions organised by the Districts and Regions in which pupils are required to participate and practise. Further, teachers spend several hours of official time conducting staff meetings. Also, pupils spend a lot of official time on activities not directly related to academic work. In addition, they spent a good amount of official time outside the classrooms.

As far as textbooks and other teaching materials are concerned, available information shows that a meagre 1.6 percent of public expenditure was invested on teaching materials in 1994. The supply of textbooks is slowly improving but is far from satisfactory. While on the one hand, the supply of mathematics textbooks to primary schools seems to be encouraging, the level of supply of science and social studies textbooks was unsatisfactory and the ideal situation of a copy of textbook per pupil is rather remote. The situation is even less encouraging with respect to English and Ghanaian languages.

The management and supervision in schools is another area that gives rise to serious concern. Weak management and supervision affect performance levels because they allow teachers not to make effective use of official instructional time. While on the one hand, Circuit Supervisors are performing well as external supervisors, the majority of the schools are not visited by District Monitoring Assistants (DMAs) in the course of the year as a result of their small numbers. As many as 30 of the 110 districts do not have any DMA. Consequently, many schools have none or few visits from educational authorities during the course of an academic year.

Another important factor is the interest and involvement of parents and communities in school affairs. The superior performance of private over public primary schools demonstrates the difference that the combined efforts of parents, head-teachers and teachers can make to provide a supportive school environment for learning. Undoubtedly motivated by the level of direct costs they bear as well as interest in the progress and welfare of their children, parents

who patronise private schools tend to be more active in the lives of the schools, generally through parent teacher associations (PTAs).

Adult literacy

The Government has been very active during the 1990s in the promotion of adult literacy through the National Functional Literacy Programme (NFLP) launched in 1989. Churches and NGOs have also been active. Besides promoting adult literacy, the most important long-term impact of the NFLP has been the “introduction of the literacy class as a new social formation in the social world of the community”. The literacy class has promoted the fact that learning is not only for children, but for all ages. Another positive benefit of the project was that it promoted the use of acquired skills in improving the lifestyle of learners. Learners are using their literacy skills as they make transactions with shopkeepers, for example, or when they are at the post office and are practising better environmental hygiene. Thus the NFLP has made a significant contribution to the achievement of the goals of adult literacy as identified at the Jomtien Conference. **The commendable efforts that have been made to develop adult literacy need to be sustained and further developed and expanded.** The forthcoming next phase of the NFLP should make a substantial contribution to addressing the learning needs of various categories of adult learners. These efforts should be complemented by measures to reinforce the concept that learning is not only for children, but for all ages.

Training in essential skills

The provision of formal technical and vocational education is very limited in Ghana. Furthermore, the outcomes are not impressive. About a third of those who attend technical and vocational institutions do not obtain any form of qualification. Consequently, only 1.6 percent of the total educated labour force has some qualifications in vocational and technical education. Enhanced labour productivity and substantially increased real incomes has therefore not been realised. Indeed a large proportion of the labour force engaged in production has not been trained; about 30 percent have never been to school; and only 5 percent have received training at secondary or higher level.

The private sector comprising NGOs and the private for-profit institutions have played a pioneering role in the direct provision of formal technical and vocational training. Government also plays a direct as well as supportive role – operating schools and subsidising examinations for both public and private schools.

Given the low availability of formal technical and vocational training opportunities, informal apprenticeship is the main mechanism for training of Ghanaian workers. The apprenticeship system, which has historically been an informal private sector activity, offers a large number of Ghanaians the opportunity to learn and acquire basic skills to earn a living. Many of the junior secondary school graduates who do not gain admission to senior secondary schools (about 65 percent of the total) acquire skills through the informal apprenticeship system.

The MOE should further strengthen the framework for regulation, monitoring and supervision of all training institutions to enhance the quality of their products and improve upon the skills and productivity of the Ghanaian worker. Policies that encourage greater private sector investment in training are also urgently required.

Another useful step would be to strengthen the linkages between the training sector and industry.

Conclusion

Besides problems of costs and gender, and again on the qualitative front, other problems fundamental to the poor performance of the education sector in Ghana include the weak institutional capacity to administer and manage educational systems. This has very important implications for the ability of Ghana to rapidly progress from its present precarious state, develop its human resources and embark on a sustained path of economic growth and development and poverty reduction. The challenge for Ghana is to more seriously mobilise and allocate its resources to the task. This challenge is not an impossible one.

Education for All (EFA): Year 2000 Assessment

Chapter 1: Introduction

As a participant at the Jomtien Conference, Ghana is committed to the EFA goals. Indeed, Ghana has long held many of the aspirations articulated by the EFA goals. For example, the Education Act of 1961 provided for free compulsory primary education, and for the state to improve the quality of education through, for example, training large numbers of teachers and making adequate provision for textbooks and other educational inputs. Furthermore, the 1992 Constitution of the Fourth Republic enjoins the State to provide free, compulsory and universal basic education (fCUBE). Hence, with the return to constitutional rule in 1993, Ghana has re-invigorated efforts to make schooling free and compulsory from Basic Stage 1 to 9 for all school-aged children by the year 2005.

Some very commendable advances have been made in education, especially during the 1960s and 1970s. For example, enrolment in education at all levels but most notably at the basic (primary and middle/junior secondary) level increased substantially, with enrolment more than doubling between 1960/61 and 1965/66 (see, for example, UNDP, 1997). By 1995/96, nominal enrolment stood at about 2.3 million, having risen from 586,000 in 1960/61, and the percentage of the population aged 6 and above who had never been to school had dropped from almost 78 percent in 1960 to 34 percent in 1992. Such achievements gained acclaim for Ghana's education system as being among the most developed on the African continent during the 1960s and 1970s.

However, the various programmes and initiatives that have been implemented over the years to provide and improve upon education notwithstanding, the Ghanaian education system has been and continues to be plagued by several deficiencies. These include inadequate access; inadequate facilities and instructional materials; poor quality of instruction; and weak administration and management. Many of these weaknesses started to become more evident and pronounced as the economic decline that began in the mid-1970s deepened in the early 1980s. Consequently, much of the early post-independence acclaim had begun to sound hollow by the mid-1980s.

In an effort to rectify the shortcomings in the education system, the Government introduced in 1987 an extensive reform programme aimed at improving access, quality and efficiency in the entire educational system. Priority objectives of these reforms were directed toward achieving these aims and thereby establishing a firm foundation for re-orienting the entire system toward the promotion of creativity, science and the acquisition of more flexible skills. On the positive side, significant increases in school enrolments have been achieved, many new schools have been constructed or rehabilitated, and greater numbers of children and youth are achieving higher levels of education since the reforms were introduced. However, as is shown in this report progress toward achieving the aims of the reform and those of the Jomtien Conference has been generally uneven and slow.

This Assessment reviews progress and trends in Ghana since the Jomtien Conference toward addressing the commitments that were made about improving early childhood care and development, access to and completion of basic education, learning achievement, adult literacy, training in essential skills, and education for better life. The Assessment is based on an analysis

of trends in key indicators (shown in Appendix Table A1). However, the Assessment is handicapped by limitations in the available data on these indicators (see Box 1.1).

Box 1.1: Data problems in education

A serious deficiency in the management of the education sector is the under-valuation of the importance and utility of statistics. This problem exists despite a number of major donor supported interventions, such as the Education Management Information System (EMIS) project, to strengthen and develop data collection, analysis and planning capacity. Thus while improving, the system for collecting and managing education sector data and information is still quite weak, especially at the pre-tertiary levels. For example, at the early childcare (ECD) and pre-school level, data on enrolments in the sub-sector are not systematically collected or recorded. On the one hand, the Ghana Education Service (GES) collects data on children in the institutions it supervises. Consequently coverage is complete for the public programmes of the GES, i.e. public nurseries and kindergartens. On the other hand, coverage is incomplete for private institutions, some of which are not even registered with the supervisory authorities. Thus available statistics underestimate ECD and pre-school enrolments. At the basic and secondary levels, data collection is undertaken without adequate co-ordination from a central level. The problems are compounded by :

- inefficient communication with schools and other data sources;
- ineffective data flow or data collection networks;
- lack of modern time-saving technology;
- inadequate resources and skills to process data and produce information;
- lack of co-ordination among data and information users;
- lack of users' ability to use information effectively.

Thus, critical data and information required for decision making by educational administrators and planners are frequently unavailable or are only cursorily utilised.

Furthermore, as recognised by the MOE (1998) the quality and reliability of collected data is often mediocre. This is because schools directly provide most of the needed data in the absence of mechanisms to validate the data. Because of the lack of data management capacity and poorly co-ordinated information gathering efforts by administrative offices, schools feel burdened by obligations to respond to administrative information requests. These feelings are exacerbated by the general lack of data management capabilities and storage facilities in schools. Consequently when an enquiry on school enrolment, for example, arrives, the staff, unable to rely on any formal records, often just counts those pupils who happen to be present in school on that day. Moreover, some schools purposely inflate or deflate numbers depending upon the associated or perceived advantages and disadvantages. In such circumstances, consistency and accuracy in data is difficult to achieve.

Because of such problems the utility of statistics and information produced by the Statistics Unit in the MOE has been deficient. Furthermore, the production of statistics has usually been substantially delayed (by as much as two years), thereby further undermining the data's utility. Also, publications are frequently voluminous and not issues oriented and are therefore not readily usable or easily understandable by policy makers. The severity of the impact of these shortcomings on MOE's functions cannot be overstated. Administrative efficiency requires reliable, accurate and timely information. Therefore weaknesses in the MOE's information and data collection and management hinder not only the availability of appropriate information but also the effectiveness of the entire administration. Ineffective management of data and information directly cripples administrative efforts to improve upon access, equity, quality and the relevance of education.

Source: Ju, Simon "Strengthening Information Management Capacity, The Ministry of Education, Ghana. A Consultancy Report Submitted to USAID/Ghana". Washington, D.C.: The Mitchell Group. October 1994.

These constraints include the quality of data on the most fundamental information about education – such as school enrolments, the ages of children in school, the numbers of repeaters and dropouts, and the number of classroom teachers – which is frequently inaccurate, out-of-date, or simply unavailable. A growing awareness about the need to address these problems coupled with the contributions of projects such as the EMIS project (Box 1.2) are yielding steady, even though slow, improvements in the MOE's data collection, processing and analysis capabilities. Provisional data for the 1997/98 school year have recently become available and the 1998/99 school year statistics are being prepared for publication. However, the 1997/98 data are still to be validated. Consequently, the most recent actual enrolment statistics that are used in this Assessment are for the 1996/1997 school year. Another constraint is due to the lack of recent population data¹, which makes the estimates of enrolment rates unreliable. Consequently, some of the data cited in this report should be interpreted as being indicative rather than definitive. Although many of the statistics reported in this Assessment are dated, they nonetheless have utility because they provide quite recent information on the state of current problems.

Box 1.2: The Education Management Information System (EMIS) Project

The education management information system project emanated from the recommendations of a study of the data and information needs of the MOE conducted in 1994 (Ju, 1994). The project aims at strengthening the capabilities of the MOE to collect, analyse and use data and information for policy analysis and planning. Its broad objectives are to:

- a. strengthen and institutionalise the capacity to routinely provide relevant, reliable and timely data and information to support decision making at all levels (namely, at the national, regional, district and school levels)
- b. increase access to education system data and information
- c. strengthen the capacity for effective data use

The Harvard Institute for International Development, Harvard University was contracted to implement a two-year pilot project that commenced in January 1997. The pilot was conducted in 3 regional and 12 district education offices and ended in August 1999. The purpose of the pilot was to determine the activities, levels of effort and resources required for a larger project that would establish a comprehensive, integrated, nation-wide education management information system. Specific objectives of the pilot included:

- a. improve existing data systems
- b. integrate existing data systems across divisions and agencies
- c. strengthen capacity to manage and maintain EMIS
- d. strengthen capacity for policy analysis, planning, monitoring and evaluation to support decision making
- e. expand and strengthen computer usage.

The EMIS project has helped to improve the MOE's capability to produce educational statistics more expeditiously and has also strengthened analytical capabilities in the ministry. Several policy briefs have been prepared and the results of a school census that provides basic education statistics for the 1997/98 academic year have been published. Negotiations are underway for a second phase of the project that will consolidate the gains established under the pilot phase and scale up to include the remaining regional and district offices.

¹ The last population census was held in 1984. The next census is scheduled for the year 2000.

Chapter 2 reviews the state of early childhood care and development programmes and appraises the demand for and supply of these services and enrolments of toddlers and young children as well as the administration and management of this sub-sector.

Chapter 3, which assesses the basic education sub-sector, comprises the major part and focus of this report. Topics that are reviewed include enrolments and intake rates, gender and geographical disparities, dropout and repetition rates and the internal efficiency of basic schooling. Other topics include financing and the administration and management of schools.

Learning achievements in primary and junior secondary schools in recent years are another important concern of the report and are assessed in Chapter 4. The Chapter also identifies some of the explanatory factors that account for the poor quality of learning and underlie the low outcomes.

Chapter 5 reviews developments in adult literacy. In particular, the Chapter assesses some of the policies and outcomes of non-formal education programmes to develop literacy among various categories of adult learners. In Chapter 6 training and life skills are reviewed. Chapter 7 concludes the Assessment with a summary of conclusions and recommendations.

This introductory chapter concludes with a very brief outline of some of the key features and developments in Ghana's economy that helped to influence the evolution of the educational sector up to the mid-1990s

Ghana's economic turmoil from the mid-1970s to the early 1980s is portrayed by the respective 10 and 27 percent drops in real gross domestic product (GDP) and GDP per capita between 1975 and 1983. Following the introduction of the Economic Recovery Programme (ERP) in 1983, Ghana achieved during the decade from 1984 to 1993 an increase in GDP of 52 percent and GDP per capita of 22 percent resulting from an average annual rate of growth in gross domestic product (GDP) of about 5 percent in real terms. However, with population growing at around 3 percent per annum, income per head rose by less than 2 percent per annum and remained below its 1975 level. Thus the World Bank's *World Development Report 1993* classified Ghana as one of the 40 low-income economies in the world -- the countries with average GDP per head of less than US \$635 per annum at 1991 prices and exchange rates. Ghana's GDP in 1992 was C3,008.8 billion, with a per capita income of C192,870 or US \$441.

Following the introduction of the ERP, considerable effort was made to improve social conditions and to ameliorate some of the social costs of economic adjustment. However by the early 1990s, the social conditions of the majority of Ghanaians remained characterised by poverty, low living standards and a generally poor quality of life. Development indicators showed that although Ghana compared favourably with most other African countries, social conditions were worse than in developing countries as a whole. Access to health care, safe drinking water and sanitation was inadequate especially in the rural areas and in consequence life expectancy was low even though it had improved significantly since Independence. Levels of morbidity and infant and child mortality were still unacceptably high and levels of education and literacy low. Major disparities in social conditions also existed between different sections of the population. Females tended to be worse off than males and rural dwellers worse off than urban residents, with rural females suffering the lowest living standards. Children in rural areas were also especially vulnerable.

Chapter 2: Early childhood care and development

Since learning begins from birth and the basic physical, cognitive and social foundations for learning and human development are formed before the age of three, early childhood development (ECD) programmes are being increasingly recognised globally as integral parts of basic education. ECD programmes include both child care and development initiatives. In this context, one of the goals of the Jomtien Declaration is the expansion of early childhood care and developmental activities, including family and community interventions, especially for poor, disadvantaged and disabled children. This is because early educational and childcare interventions have a strong positive influence on the school readiness, progress and learning of children upon their entry into primary school. The preparation offered by such interventions therefore (i) help to reduce and prevent the potential for subsequent wastage in schools, (ii) result in cost savings on remedial programmes for dropouts and repeaters, and (iii) contribute economically to a country through increased productivity. Another advantage of pre-schooling is that gender barriers, which seem to affect girls even before they enter primary school, tend to be minimised when girls attend pre-school (Laryea-Adjei and Brown Farhat, 1998). Still another important feature of pre-schools is that they provide an opportunity to integrate targeted nutrition-enhancing strategies in child development, especially in areas of countries where there are high malnutrition and child mortality rates.

In Ghana, there is a growing demand for the services provided by early childhood care and development institutions and pre-schools. This is clearly demonstrated by the rapid expansion in the number of ECD institutions and pre-schools that has occurred since 1992. In this respect, the number of public and private kindergartens increased by 3 percent and 27 percent respectively, between 1993 and 1996. In 1996, there were 5,441 public kindergartens and 3,742 registered private establishments (comprising 2,174 nurseries and kindergartens, and 1,568 day care centres). Table 2.1 provides some statistical detail on public nurseries and kindergartens in that year. However, as discussed in Box 1.1 statistics on the sub-sector are incomplete. In 1997 total enrolment was estimated at 427,460 and 155,645 pupils in public and private institutions, respectively, (UNICEF, 1999), giving a gross enrolment ratio (GER) of about 14 percent. While this represents a 40 percent rise in enrolment since 1992, when the ECD and pre-school GER was estimated at about 10 percent of children in the relevant age group, this group remains grossly under-served with respect to ECD and pre-school services.

A striking feature is that the private sector provided about 41 percent of all ECD establishments.² This reflects the fact that most parents who demand these services can afford to pay for them. By contrast poor parents are generally unable to access these services for their children. Pre-school education services were provided only by private institutions until 1977 when the MOE issued a directive for public primary schools to establish kindergarten classes. However, implementation of this policy was poor largely because the MOE could not cope with the financial pressures and the demand for trained teachers. Consequently, the MOE banned the opening or absorption of new nursery and kindergarten pre-schools in the public sector in 1989, whilst continuing to maintain those that already been opened (Sawyer, 1999). Thus by 1996, fewer than half of the 11,435 public primary schools had established pre-schools. Nowadays, Government, the private for-profit sector, NGOs and communities all

² Apart from the Greater Accra Region, where there are over six times as many private as there are public pre-schools, the public sector dominates the provision of pre-school education throughout the country.

provide pre-school services³. The role of NGOs and communities is particularly visible in the rural areas.

Table 2.1: Statistics on pre-school and personnel in public nursery/kindergarten, 1996

Region	Number of public schools	Enrolment			Number of trained teachers	Number of untrained teachers	Number of attendants	Number of private schools*
		Boys	Girls	Total				
Ashanti	948	28844	27991	56835	1174	649	1480	406
B-Ahafo	757	27591	26870	54461	620	1167	1725	110
Central	634	21040	21025	42065	443	542	484	225
Eastern	914	30599	29847	60446	1358	1388	395	167
G. Accra	151	8167	7909	16076	380	132	241	909
Northern	327	16643	13835	30478	183	613	34	10
U. East	82	5470	5337	10807	28	147	20	8
U. West	54	3153	3202	6355	47	13	126	14
Volta	607	23006	23611	46617	874	381	905	199
Western	967	31174	32445	63619	485	3067	n.a.	126
Ghana	5441	195687	192072	387759	5592	8099	5510	2174

Source: Ministry of Education

*excludes day care centres

Early childhood care and pre-school education is neither formally integrated into basic education nor compulsory at present. Traditionally, government's role in pre-schooling has been largely limited to the direct provision and payment of salaries of staff employed in NGO-established schools and supervision of the private for-profit sector. The Ghana Education Service (GES) of the Ministry of Education (MOE) is responsible for ECD programmes for children aged 3-5 years run by public and private nurseries and kindergartens. These programmes focus on teaching and learning within a framework of curricula, teaching guides, grading and supervision provided by the GES. At the same time, ministerial responsibility for ECD programmes for children below 3 years of age, such as day care centres and crèches, lies with the Ministry of Employment and Social Welfare (MESW).⁴

The MESW programmes are more concerned with caring for the children of working mothers than contributing toward the development of the cognitive skills and capabilities of their wards. While the GES ostensibly has an oversight role on the content of the programmes run in day care centres and crèches this does not occur effectively in practice. Indeed, the MOE has traditionally paid relatively little attention to early childcare and pre-schools, despite a growing interest and demand for these services by parents. The inadequate staff strength, lack of transportation and other logistics, constrain the ability of MOE to regularly supervise pre-schools with the result that several pre-schools are unsupervised. There is therefore a tendency toward poor care and inappropriate curricula in early childhood institutions.

³ A new policy to further expand the sub-sector by encouraging increased private provision and the greater involvement of District Assemblies has been under preparation by the Ghana National Commission on Children (GNCC) since 1997.

⁴ In practice the age requirements for eligibility for the different programmes are not strictly observed by the institutions. Consequently, many ECD institutions enrol children who are not necessarily of ages within the official age groups for these levels.

Another problem is that there is overcrowding in both public and private pre-schools, a situation that increases the vulnerability of enrolled toddlers to communicable diseases. Additionally, overcrowding results in limited interaction between children and their caregivers or teachers. Overcrowding also minimises the children's enthusiasm to play at playtime, as movement is highly restricted. Lack of play facilities is another major problem especially in public pre-schools in the rural areas. The situation seems to be different in regional capitals and other large towns but even there the private pre-schools have the better facilities. Where children have few or no playthings they show no enthusiasm in their environment and are generally slow to learn (Laryea Adjei and Brown Farhat, 1998). This factor may affect the ability of children to learn as they move up through the higher levels.

Equally as serious is the fact that teachers and caregivers in private pre-schools are generally untrained in pre-school education. The initiatives of the GES in providing in-service training through the District Organisers of Education have had only a limited impact with almost 60 percent of teachers in public pre-schools being untrained (Table 2.1). In the private pre-schools the majority of staff are JSS and SSS graduates with no training in pre-school education.

The Ghana National Commission on Children (GNCC) is currently drafting for consideration by Parliament a comprehensive policy on ECD that is designed to establish an integrated, holistic and inter-sectoral approach to ECD. The policy proposes distinct roles for the management and administration of the sub-sector to the MOE and other major stakeholder institutions like MESW and the Ministry of Local Government and Rural Development (MLGRD). The policy recognises that parents, families, communities and the physical, social and economic environment in which a child lives all affect the total development of the child and that the state of any of these elements affects the proper development of the child. These networks, as well as the expansion of the range of care-givers to include parents, family members, and the community, all comprise non-conventional systems the development of which is encouraged under the policy. Such approaches are aimed at strengthening ECD and making these services accessible especially to the young children of the under-privileged and poor in rural and urban areas. Once enacted into law and actively enforced by the MOE and its partner institutions, the policy will streamline some of the present weaknesses that characterise the management of ECD programmes. Among these weaknesses is the limited degree to which local content is incorporated into the programmes run by many ECD institutions.

The MOE should seek to more vigorously address how it can help to develop and strengthen the ECD sub-sector. A relatively simple contribution would be to better regulate the training of teachers and childcare workers and ensure that all who work in ECD are properly trained or re-trained. More sophisticated initiatives would be to enhance the linkages between the ECD sub-sector and other educational sub-sectors.

Chapter 3: Basic education

Basic education in Ghana comprises primary education (grades 1 to 6) and junior secondary school (JSS 1 to 3 or grades 7 to 9). It is difficult to accurately determine school enrolment rates at present because of the absence of reliable estimates of the current population. A Population Census has not been held for fifteen years⁵. Consequently, all available population estimates are projections based on the last census that was conducted in 1984⁶. Also, until recently the lack of age-specific data on children enrolled in school made it impossible to estimate net enrolment rates⁷. These data are available for the 1997/98 academic year for which provisional data have very recently been published⁸. However, the results of the 1997/98 basic schools census have yet to be validated. Consequently, the most recent actual enrolment statistics that are used in this Assessment are for the 1996/1997 school year. Hence only gross enrolment rates are reported.

Improvements in the data collection and processing capabilities in the MOE have significantly reduced the long lags that were previously experienced in the publication of education (see Box 1.2). However, problems still exist in ensuring completeness of coverage. The available information nonetheless gives a relatively faithful portrayal of recent developments in a slow changing sector. However, as explained in Box 1.1, there are concerns about the degree of accuracy of enrolment statistics. Therefore some of the statistics reported in this Assessment are more indicative than they are definitive.

3.1 Enrolments

3.1.1 Primary school

While primary school enrolment has been increasing in absolute terms during the 1990s, the proportional participation of children in primary schooling has declined during the decade. This is notwithstanding efforts to improve physical access through an 11 percent increase in the total number schools. Public and private schools increased from 11,165 in 1990/91 to 12,389 in 1995/96 (MOE). Public schools increased by about 8 percent, while private schools increased by an impressive 76 percent during the period, from 542 to 954.

Table 3.1 shows that the proportion of pupils of all ages enrolled in Primary 1 (P1) to Primary 6 (P6) relative to the population of 6-11 year olds, i.e. the gross enrolment ratio (GER), declined from 79.3 percent in 1990/91 to 76.5 percent in 1996/97. Thus the GER in 1996/97 was even lower than its level of 77.3 percent a decade earlier in 1986/87. As these data indicate, Ghana has fallen well short of the target of achieving universal primary enrolment by the year 2000. The disappointing rate of progress that has been achieved toward achieving universal enrolments has led the MOE to revise its target date for achieving its goal of universal

⁵ The next Census is scheduled for the year 2000.

⁶ An explanation of the assumptions used by the MOE to estimate the school age population is presented in Appendix 2. Lack of reliable population data makes it difficult to accurately determine enrolment rates. However, the rate of growth of population is assumed to be faster than enrolment growth. Hence the perpetuation of enrolment rates of less than 100 percent.

⁷ The MOE began collecting this information in the 1997/98 academic year, which it has yet to publish.

⁸ Provisional 1998/99 school year statistics will also soon be ready for publication.

basic education from the year 2000 to 2005 (MOE, 1996). By the year 2000, the MOE projects that it will have raised the GER back to its 1990/91 level of about 79 percent.

Table 3.1: Total primary school enrolments, 1986 and 1990 to 1999

Table 3.1:

Year	School-age population [†] (6-11 years)	Primary school enrolment (public & private)	Gross enrolment ratio	Proportion enrolled in private schools	Gender parity
1986	2,173,089	1,679,072	77.3	4.1	0.81
1990	2,453,146	1,945,422	79.3	7.3	0.82
1991	2,544,676	2,011,062	79.0	10.2	0.84
1992	2,638,831	2,047,293	77.6	9.7	0.85
1993	2,736,919	2,138,635	78.1	10.7	0.85
1994	2,838,678	2,154,676	75.9	10.9	0.87
1995	2,944,253	2,197,172	74.6	11.0	0.87
1996	3,048,161	2,333,347	76.5	13.1	0.88
1997	3,155,758	2,445,353*	77.5	13.1*	0.89*
1998	3,267,002	2,562,229*	78.4*	13.1*	0.90*
1999	3,382,649	2,684,689*	79.4*	13.1*	0.91*

Source: Statistics Unit, SRIMPRD, MOE.

[†]School-age population projected from the 1984 Census by MOE

*Projections of the MOE

3.1.1.1 Geographical disparities in enrolments

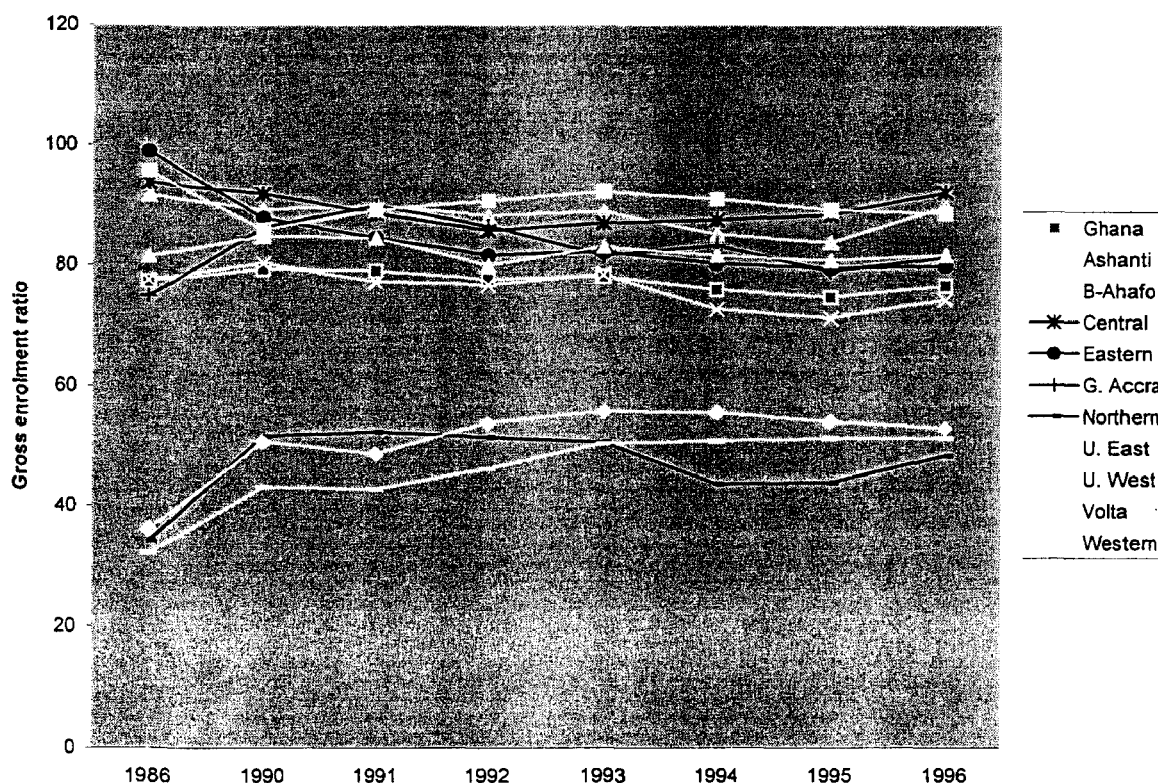
National and regional trends in primary school gross enrolment rates are shown in Figure 3.1. The graph portrays the downward trend in the national GER during the early to mid-1990s with evidence of an emergent upward trend after 1995. The graph also shows regional differences in enrolment rates. Six regions – namely, Ashanti, Central, Eastern, Greater Accra, Volta and Western – had GERs that were above the national average during the period. The best performing regions are Volta, Central and Ashanti, all of which had average GERs of about 90 percent throughout the period. On the other hand, four regions had GERs that were below the national average. Among these, three regions (all in the northern part of the country) – namely, Northern, Upper East and Upper West – had rates that, at well below 60 percent, were substantially below the national average during the period. Indeed the low GERs in these three regions largely account for the moderate level of the national primary GER⁹.

The disparity between northern Ghana and other parts of the country has persisted from before independence. In colonial times the government did not promote education in northern Ghana as it did in other parts of the country. This was left entirely in the hands of the church and missionaries. It was only after the establishment of self-government in the early 1950s that educational services were consciously expanded to include the northern parts of the country. However, as Figure 3.1 shows the northern regions continue to lag far behind the

⁹ The GER in Ghana in the mid-1990s is comparable to the Sub-Saharan African (SSA) level of about 74 percent. Eleven out of 48 SSA countries, including Botswana, Congo, Malawi, Namibia, South Africa, Togo and Zimbabwe, had GERs in excess of 100 percent in 1995. Three countries (Seychelles, Rwanda and Lesotho) had GERs just below 100 percent. On the other hand another 8 countries, including Burkina Faso, Ethiopia, Guinea, Liberia, Mali and Niger, had GERs below 50 percent in the same year. The remaining 26 SSA countries (excluding 2 countries for which no data are available) had GERs between 50 percent and 96 percent in 1995 (UNESCO Yearbook, 1998 and World Development Indicators, 1998).

rest of the country in education enrolment rates some four and a half decades after independence.

Figure 3.1: National and regional trends in primary school gross enrolment ratios



Source: Tables 3.1 and A3.1

Box 3.1: The impact of conflict on enrolment

The experience in the Northern Region between 1992 and 1995 when primary and JSS enrolments dropped substantially is due to the ethnic conflict that occurred in the region during the period. A consequence of the conflict was the displacement of considerable numbers of people from their homes because of the instability and lack of security. This was especially the case in rural areas and largely explains the reduction in the numbers of children enrolled in school during the period.

Source: PSDP Impact Assessment Survey, 1995.

Sometimes the low enrolment rates have been exacerbated by such phenomena as ethnic conflict (Box 3.1). However, the major explanatory factors for the trends in regional and national enrolments include, poverty and the direct and indirect costs of education, the rate of population growth and perceptions of the advantages that education confers on job seekers in the labour market.

3.1.1.2 Enrolments in private primary schools.

While total primary enrolment was growing at an average rate of about 3.1 percent per annum between 1990 and 1996, enrolment in private primary schools was at the same time increasing by more than four times this rate at

13.6 percent per annum. Private primary enrolments therefore more than doubled from about 142,000 in 1990 to over 306,000 in 1996, an increase of about 115 percent¹⁰ (see Table 3.2). A major explanatory factor for the growth in private schooling is that private schools generally perform better than public schools because teaching and learning in the former tends to be superior to that in the latter. Trends in the performance of public and private school pupils in public examinations discussed in Chapter 4 corroborate this finding. Consequently, parents who are able for either reasons of income or geography, or both, tend to send their children to private schools.

Table 3.2: Private primary school enrolments

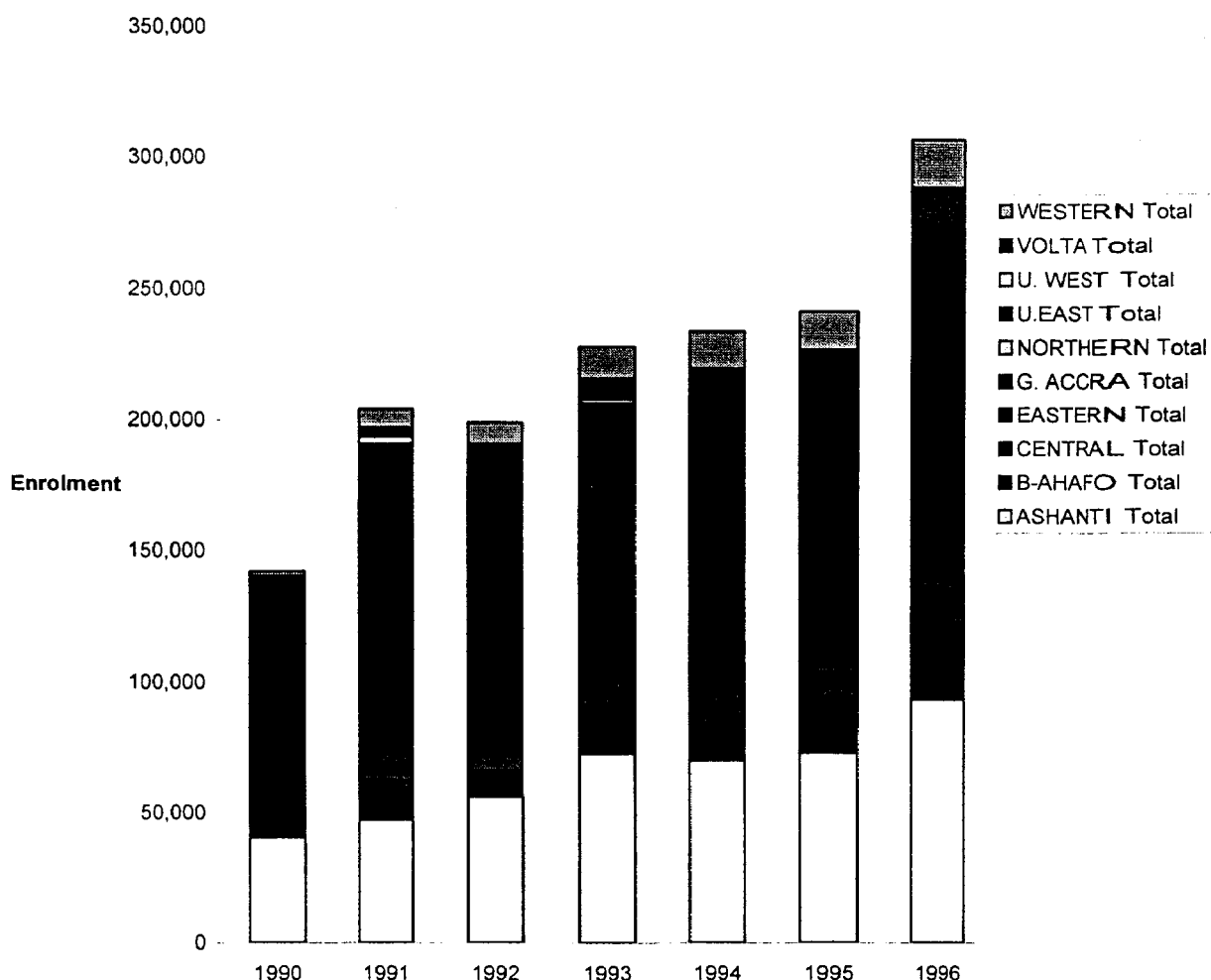
		1990	1991	1992	1993	1994	1995	1996
GHANA	Total	142,274	204,379	198,993	228,227	233,843	241,459	306,321
	Male	74,115	107,444	103,043	118,306	120,438	124,280	157,423
	Female	68,159	96,935	95,950	109,921	113,405	117,179	148,898
ASHANTI	Total	40,627	47,277	56,298	72,785	70,125	73,036	93,255
	Male	21,086	24,984	29,288	37,887	36,280	37,634	48,072
	Female	19,541	22,293	27,010	34,898	33,845	35,402	45,183
B-AHAFO	Total	7,936	15,116	10,161	18,507	14,278	21,419	28,307
	Male	4,288	8,297	5,617	9,974	7,907	11,607	15,165
	Female	3,648	6,819	4,544	8,533	6,371	9,812	13,142
CENTRAL	Total	816	10,235	5,314	9,896	11,030	12,017	16,975
	Male	434	5,516	2,739	5,191	5,676	6,207	8,783
	Female	382	4,809	2,575	4,705	5,354	5,810	8,192
EASTERN	Total	8,389	13,888	15,248	17,208	16,459	19,765	25,045
	Male	4,395	7,203	7,813	8,885	8,573	10,183	12,747
	Female	3,994	6,685	7,435	8,323	7,886	9,582	12,298
G. ACCRA	Total	79,852	104,488	100,030	88,286	101,568	92,967	114,420
	Male	41,250	53,786	51,156	44,882	51,386	47,156	57,997
	Female	38,602	50,702	48,874	43,404	50,182	45,811	56,423
NORTHERN	Total	932	2,506	0	1,380	424	437	318
	Male	700	1,719	0	873	286	219	200
	Female	232	787	0	507	138	218	118
U.EAST	Total	350	342	117	2,201	58	437	1,187
	Male	169	202	86	1,183	33	219	579
	Female	181	140	31	1,018	25	218	608
U. WEST	Total	126	40	0	348	424	514	0
	Male	70	21	0	183	229	263	0
	Female	56	19	0	165	195	251	0
VOLTA	Total	1,451	3,323	3,805	5,276	5,337	6,269	9,023
	Male	765	1,853	2,023	2,724	2,644	3,173	4,580
	Female	686	1,470	1,782	2,552	2,693	3,096	4,443
WESTERN	Total	1,795	7,074	8,020	12,340	14,140	14,598	17,791
	Male	958	3,863	4,321	6,524	7,424	7,619	9,300
	Female	837	3,211	3,699	5,816	6,716	6,979	8,491

Source: Statistics Unit, SRIMPRD, MOE.

¹⁰ The caveat about reliability of the data must also be entered here, especially in view of the pronounced secular swings that are observed in regional enrolments, which suggest a lack of complete coverage of private schools in some years. For example, total private school enrolment jumped by nearly 40 percent between 1990/91 and 1991/92, followed by a 2.6 percent drop in 1992/93 and a 15 percent rise in 1993/94. These swings could, however, be attributed to the economics fortunes of the country, which took a serious dip in late 1992 that could have caused some parents not to enrol their children in private schools at that time.

Two regions, Greater Accra and Ashanti, together accounted for nearly three-quarters of private enrolments throughout the period (Figure 3.2). In Greater Accra, an average of about one-third of children in the region attended private schools, with an average of 16 percent of Ashanti children doing so between 1990 and 1996. An explanation for the pre-eminence of these regions in private schooling can be found in the fact that they host the two largest cities in Ghana: Accra, the country's capital, and Kumasi, the second city. Private schools are all located in those urban areas that have a sufficient concentration of parents who can afford the fees. Towns and cities in the other regions tend to be substantially smaller and less wealthy than Accra and Kumasi and therefore have substantially lower private primary school enrolments than these cities.

Figure 3.2: Regional distribution of private sector primary enrolment, 1990-96



Source: Table 3.2

3.1.2 Junior secondary school

At the JSS level, the total number of public and private schools increased by about 10 percent from 5,136 in the 1990/91 academic year to 5,639 in 1995/96. Over 95 percent of JSS were public sector schools. Similarly, public schools dominated JSS enrolments and accounted for about 95 percent of students in 1995. The national GER in JSS rose from 54.5 percent in 1990 to 58.6 percent of children aged 12 to 14 years in 1996 (Table 3.3). Thus while there had been modest improvement in the GER during the period, about half the population of children of JSS age were not enrolled in schools at this level. Clearly raising the transition rate from primary 6 to JSS 1 is an area that deserves priority attention if the aim of universal basic enrolment (and completion) is to be achieved. The constraints and hindrances that prevent a substantial proportion of primary school children from continuing to JSS must be identified and addressed.

The best performing regions at the JSS level are Greater Accra, Central and Ashanti, which respectively had GERs of about 78, 72 and 67 percent in 1996. As at the primary level, there is a substantial disparity between the enrolment ratios of the regions in the north and those in other parts of the country. Figure 3.3 illustrates the extent of the gap between the north and the average national JSS gross enrolment rates. The average gross enrolment rate in the three regions during the period, at about 28 percent, was a little less than half of the national average rate of about 58 percent. Again the drop in enrolment in the Northern Region during the ethnic conflict is evident. However, it is not as pronounced as at the primary level because most JSS are located in urban rather than rural areas. More encouraging is the steady upward trend in enrolments at JSS during the period in all three regions in the north. By 1996, the average enrolment rate in the three regions had risen to 32.7 percent compared to the national average of 58.6 percent.

Table 3.3: Junior secondary school enrolments, 1990 to 1996

Year	School-age population (12-14 years)	Junior secondary school enrolment	Gross enrolment ratio	Gender parity
1990	1,044,945	569,343	54.5	0.62
1991	1,077,342	605,760	56.2	0.70
1992	1,108,668	644,976	58.2	0.72
1993	1,141,947	676,182	59.2	0.74
1994	1,176,214	690,558	58.7	0.76
1995	1,211,494	713,878	58.9	0.77
1996	1,259,679	738,057	58.6	0.78

Source: Statistics Unit, SRIMPRD, MOE

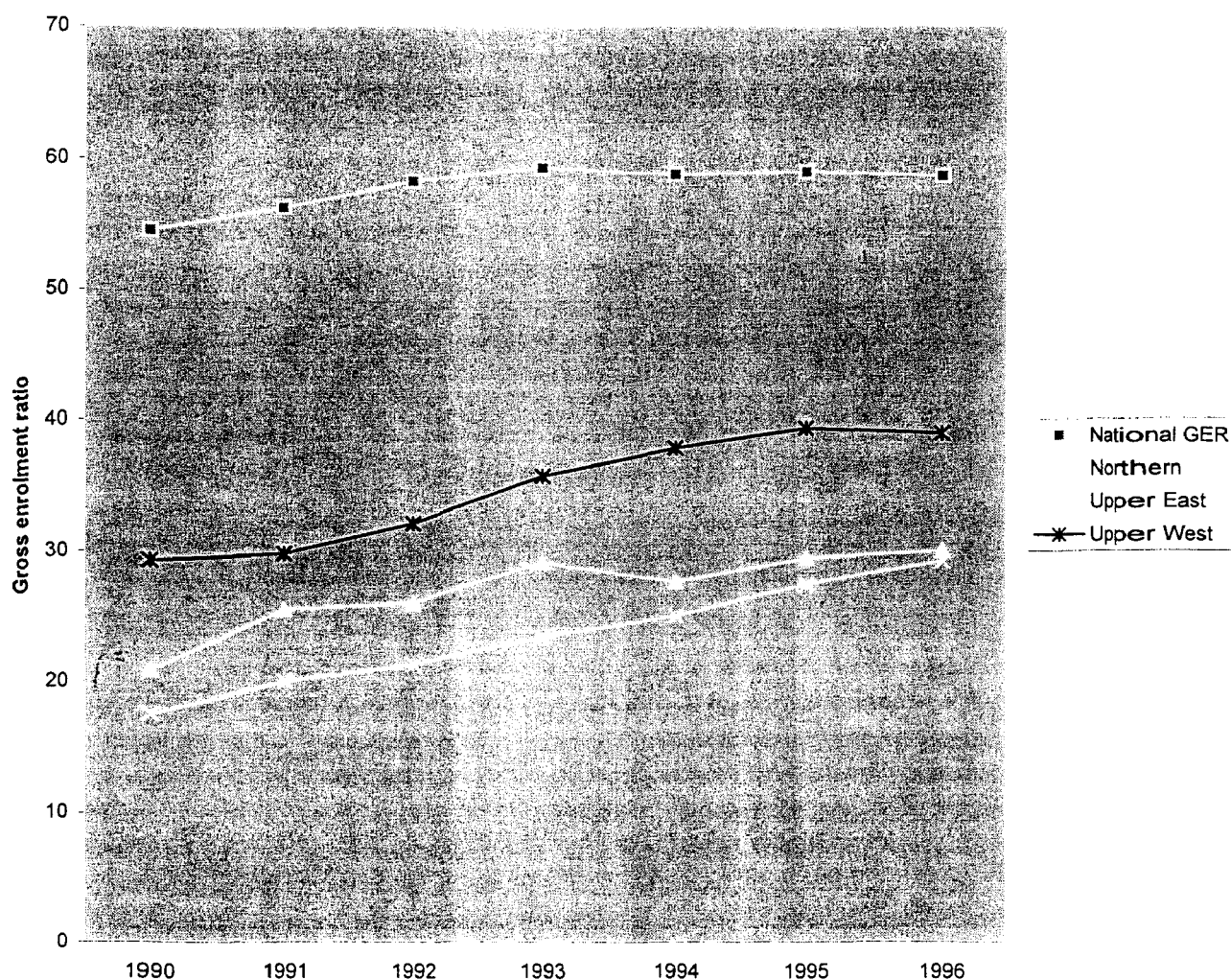
3.2. Intake of children into primary school

The proportion of children of school going age that entered the first grade of primary school diminished from 1990 to 1996. Perhaps reflecting the rapid rate of growth of the population coupled with an inadequate numbers of schools, intake rates were even higher in 1986 than they were a decade later. New entrants of all ages to Primary 1 represented about 85 percent of the official primary school entrance age population in 1996, having fallen from around 93 percent at the beginning of the decade (see Figure 3.4). The best performing regions in 1996 were Central and Volta Regions, which each admitted cohorts of 98 percent of the primary

school entrance age population. The next best performers were Ashanti, Western, Brong Ahafo and Eastern Regions, all of which enrolled cohorts that were equivalent to about 90 percent of children in the relevant age group. However, there was a general downward trend in most of these regions until about 1995, when the intake rates began to rise. The upward trend began earlier (in 1992) in the Central and Western Regions, however.

Again, the regions in the northern parts of the country are the poorest performers. The lowest achiever was the Northern Region, which recorded an intake rate of 67.5 percent of its official primary school entrance age population in 1996. As indicated by the steep decline in intake rates that occurred in the Region between 1990 and 1995, the disappointing performance reflects, at least in part, the consequences of the ethnic conflict referred to in Box 3.1. Surprisingly, Greater Accra was also among the poor performers with an intake rate well below the national average and equivalent to that achieved by the Upper East and Upper West regions.

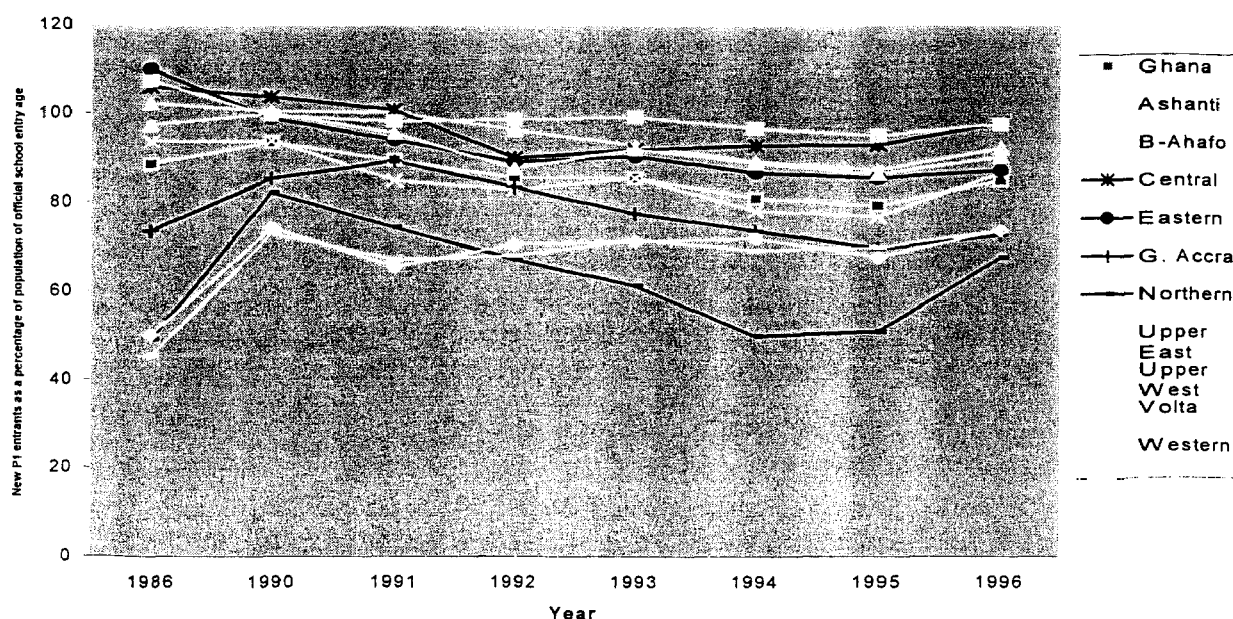
Figure 3.3: Trends in JSS gross enrolment ratios in northern Ghana



Source: Tables 3.3 and Table A3.2.

The poor intake rates reflect, among other things, the severe constraints in service provision, especially in the northern parts of Ghana, where rural children frequently have to walk quite considerable distances to school. This issue has particular significance since a major plank of the MOE strategy to increase enrolments is to improve the intake rates of pupils of the official school entrance age population.

Figure 3.4 :National and regional primary school intake rates



Source: Table A3.3

3.3. Gender

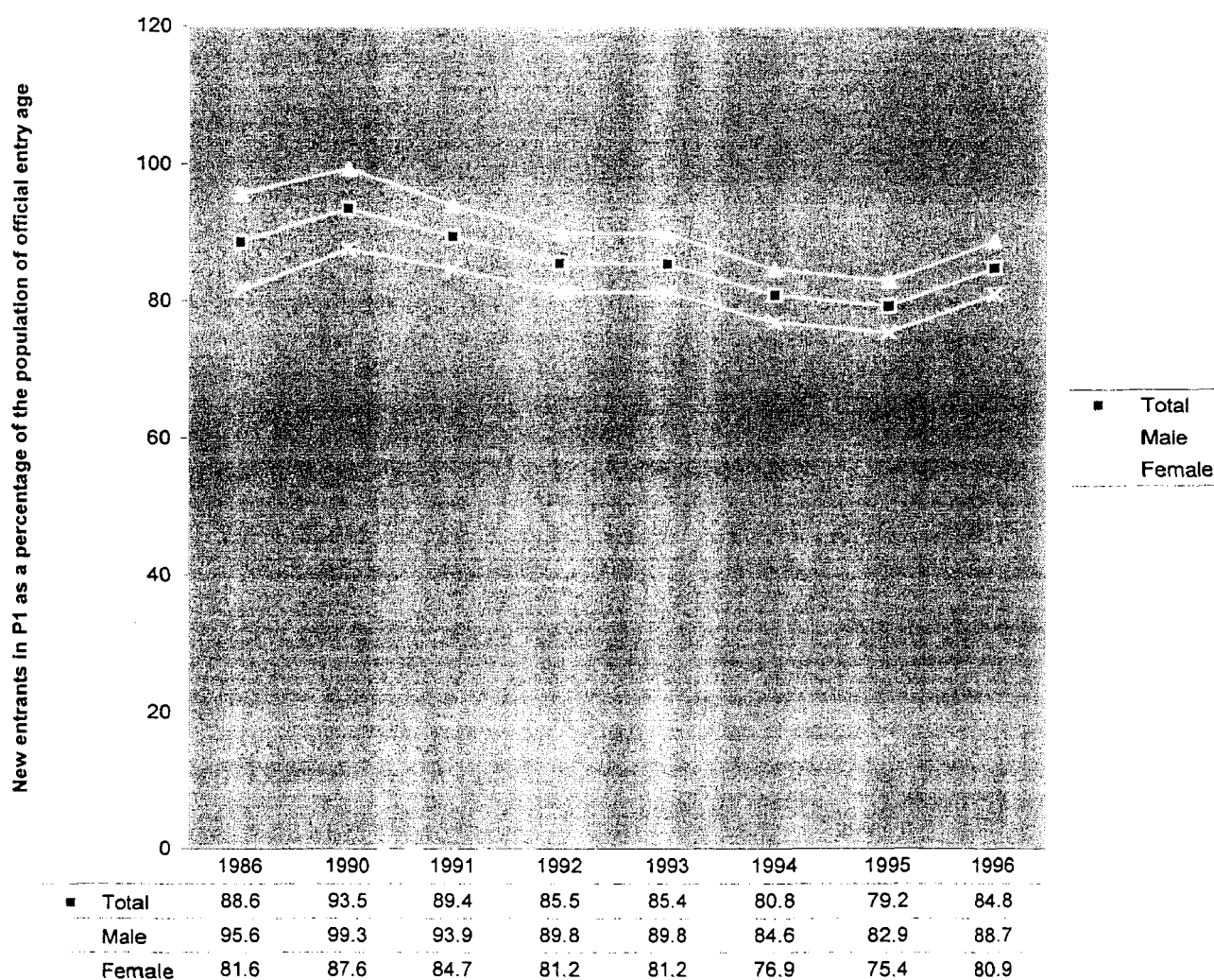
There is a significant disparity between the intake and enrolment rates of boys and girls in basic education. Substantially more boys participate in schooling than girls. For example, the gross enrolment ratio for male children in primary school was 86.7 percent in 1990 compared to a rate of about 72 percent for girls. However, while the male GER had fallen to 81.5 percent by 1996, the female GER had remained relatively stable at 71.5 percent. Thus, the gender parity index (GPI)¹¹ improved from 83 percent to 88 percent over the period 1990/91 to 1996/97 (Table 3.1). Similarly, in terms of intakes into P1, the GPI has improved from 88

¹¹ The GPI is the female GER expressed as a percentage of the male GER. A high GPI denotes a high degree of participation of girls compared to boys in primary education. A GPI value of 100 percent indicates that an equal proportion of the male and female populations are enrolled, implying equal treatment for both genders. GPIs can be calculated using net enrolment ratios.

percent in 1990 to 91 percent in 1996 (see Figure 3.5). These trends show clear improvement toward the achievement of gender equality in primary school participation (see Box 3.2). Similarly, in junior secondary school, although more pronounced than in primary schools, gender disparity is steadily diminishing. At this level, gender parity improved from 0.62 in 1990 to 0.78 in 1996.

Gender disparities in enrolments and intakes are greatest in the northern part of the country. Gender parity in all three northern regions is significantly below the national average in both primary and junior secondary schools. For example, gender parity in the Northern Region was only 0.6 and 0.44 in primary and junior secondary schools, respectively, in 1996. However, as in the other parts of the country, the overall trend in the north reflects improvement in the reduction of gender disparity during the 1990s.

Figure 3.5: Trend in primary school intake rates by gender



Source: Table A3.4

In addition to being less likely than boys to be enrolled in school in the first place, girls are also more likely to be withdrawn from school when the household requires unpaid labour for its

domestic chores, or when parents have difficulty meeting the costs of their children's education. Owing to the many household chores for which they are traditionally responsible, girls also tend to be late for school (UNDP, 1997). For example, in areas where firewood is the fuel used by households for cooking, the duty of fetching firewood falls on girls, thereby contributing to their arriving late at school, or to their absence. A similar situation exists where access to water is limited or involves walking great distances. In addition, there is, of course, the major responsibility of looking after younger siblings.

Box 3.2: Towards gender equality – The Girl's Education Unit

Successive governments have pursued educational policies aimed at creating a free and fair environment for universal education. To promote the education of girls and gender balance in enrolments the MOE established the Girl's Education Unit (GEU) in the Ghana Education Service in 1997. The overall aims of the GEU are to:

- bring parity of access between males and females to education and educational opportunities
- enable girls' to contribute more effectively to the development of the nation
- improve the status of women and girls
- develop the social capital of women in terms of their education, status, self confidence, bargaining power, decision-making power, access to resources, and experience of the political and economic world

Specific objectives of the GEU are to achieve the following by the year 2005:

1. Increase national enrolment of girls in primary schools to equal that of boys by the year 2005 and to develop and maintain strategies aimed at ensuring the continuation of girls into junior secondary schools.
2. Reduce the dropout rate of girls in primary schools from 30% to 20%, and of girls in junior secondary schools from 21% to 15%.
3. Increase the transition rate from junior to senior secondary schools by 10% by the end of the fCUBE programme.
4. Increase the participation of girls in science, mathematics and technology subjects by improving the quality of teaching and enhancing the perception of these subjects.

Strategies for achieving these objectives include:

- Increasing community participation in education
- Promoting advocacy and social mobilisation
- Training and recruiting more female teachers
- Making teachers more gender sensitive
- Lowering the cost of education to parents

An important element of the strategy is the District Girls' Education Officer (DGEO). These officers have been appointed to each District Education Office (DEO) to (i) actively promote girls' education, (ii) serve as a link between the GEU and communities, (iii) develop an awareness of issues relating to girls' education within DEOs, (iv) take positive action within the districts to raise female enrolment and retention rates in school, and (v) monitor girls' enrolment, retention and achievement rates.

Source: Ghana Education Service. Gender Matters, January-March 1999; Girls' Education Unit Brief, September 1999.

Several social, cultural and economic factors, including poverty, have been identified among the determinants of enrolment disparities between the sexes (Boakye, Agyeman-Duah, Osei and Brew-Ward, 1997). However, while an important factor, poverty does not entirely account for gender inequality in school enrolment (Colclough, Rose and Tomboy, 1998). A variety of cultural practices have been found to frustrate the attendance (as well as performance) of girls at school. Indeed, the incentives for girls to attend and to perform well in school are less than they are for boys¹². This is especially true in those communities where men occupy the main leadership roles and the marriage of girls occurs at a much younger age than among boys. Other important contributory factors are religious or customary beliefs that discourage social interaction between the sexes and social attitudes that encourage women to see their future as being centred on the home and family rather than on employment or a career.

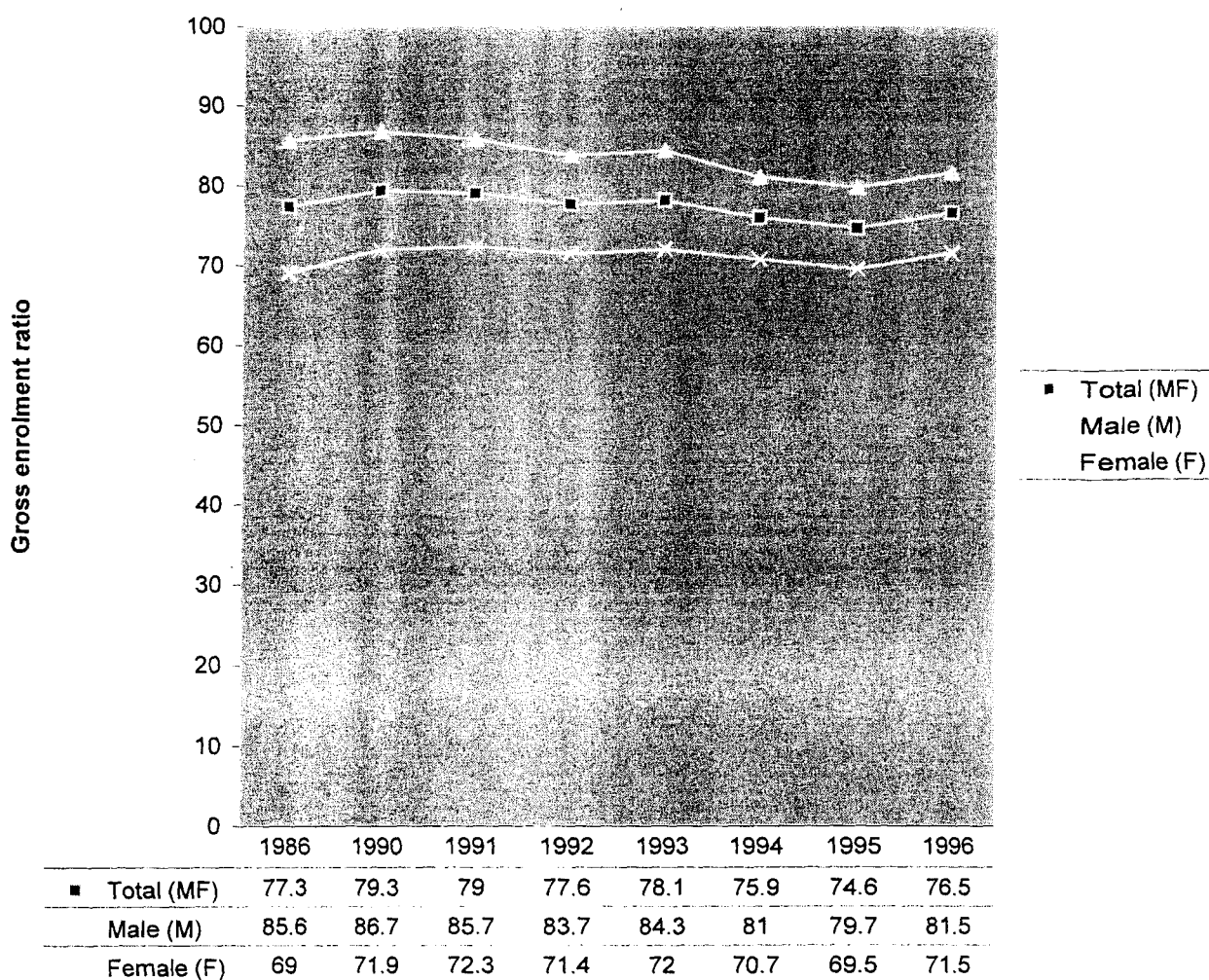
The environment of the school is also sometimes less conducive to the attendance and performance of girls than boys (Colclough, Rose and Tomboy, 1998). An important factor here is the distribution of female teachers. Where there are few or no female teachers, male teachers may not provide girls sufficient support; moreover, they may even be sexually threatening to adolescent girls. Such environments may result in girls being timid and less self-confident of their abilities, manifesting as poor performance in school. A related area of concern is the tendency to restrict the training of girls to gender-specific areas (UNDP, 1997). Through this tendency, the formal education system reinforces conservative societal attitudes towards diversified training and female employment. In addition such tendencies also discourage males from pursuing certain types of training and occupations. For these reasons, there is need for education systems to design and implement gender sensitive curricula with a view to encouraging all talents and sustaining the interests of both girls and boys in school, and in all areas of study and training. Gender sensitivity of teachers can be inculcated through training and monitored by the education authorities. However, more resourcefulness and planning is needed to tackle similar attitudes that exist in the home and that pervade the society as a whole.

Another factor that has been found to cause girls to be absent from schools is their need for separate and adequate toilet facilities (Colclough, Rose and Tomboy, 1998). As girls approach puberty, their need for more privacy when attending to personal hygiene can be an additional cause for absence, and subsequent poor performance or dropping out if the necessary facilities are absent. Still another problem may be harassment from boys. Finally, the journey to school may have greater attendant risks for the safety of girls than of boys causing some parents to keep their daughters at home rather than send them to school.

Given the bias against educating girls, it comes as no surprise that fewer females than males succeed in achieving permanent literacy and numeracy, or that the majority of Ghanaian women are completely illiterate. This provides a very serious cause for concern, especially in light of the abundance of evidence that affirm the particular benefits of returns to schooling for females. Moreover, it constitutes a threat to future economic development in Ghana, since uneducated mothers are less likely than educated mothers to send or retain their children in school.

¹² Interestingly, as discussed in Chapter 4, girls' performance in English on the criterion-referenced test (CRT) is not substantially different from that of boys. However, boys perform statistically better than girls in mathematics.

Figure 3.6: Primary GER by gender



Source: Calculated from annual series of education statistics published by Statistics Unit, SRIMPRD, MOE.

While the trend in gender parity is encouraging, closer inspection reveals that it may not entirely be due to greater effort by parents to ensure equal participation of children in school regardless of their gender. The data show that there was a downward trend in both intake and enrolment from 1990 to 1995 for both genders. However, the drops in intake and enrolment rates were less steep for girls than boys (Figures 3.5 and 3.6), indicating that boys were relatively more affected than girls. This suggests that, although proportionally more boys than girls go to school, the opportunity costs of attending school are higher for male children than female¹³. This is notwithstanding the traditional biases against educating girls and their

¹³ Norton et al. (1995) found that poor parents often do not send their children to school because of the high opportunity costs involved - in the form of household chores or income generating activities performed by children. This is because poorer households typically depend upon the labour of their children to supplement household income. Income supplementation by children occurs either directly, through work on the farm or in the labour market, or indirectly, through the performance of household tasks that liberate adults to engage in remunerated work. In these circumstances, poor households may opt not to enrol some or all of their children in school.

performance of household duties. It therefore appears that boys are more likely than girls to pursue alternatives to attending school. These alternatives, especially for older boys, include engagement in income earning opportunities or apprenticeships.

As this discussion of gender issues indicates the causes of the disparities include elements that arise from within the school environment as well as several that are beyond the control of schools. Therefore in order to reduce gender disparities the MOE should principally concentrate on those elements it can directly influence. Among these factors is the gender of teachers. Research in several countries has shown that **the presence of female teachers generally has a positive influence on girls' attendance** (UNESCO, 1995). In part, this is because some parents are reluctant to send their daughters to be taught by male teachers. Therefore the presence of female teachers promotes confidence among parents that their daughters will not be molested and therefore can safely be sent to school.

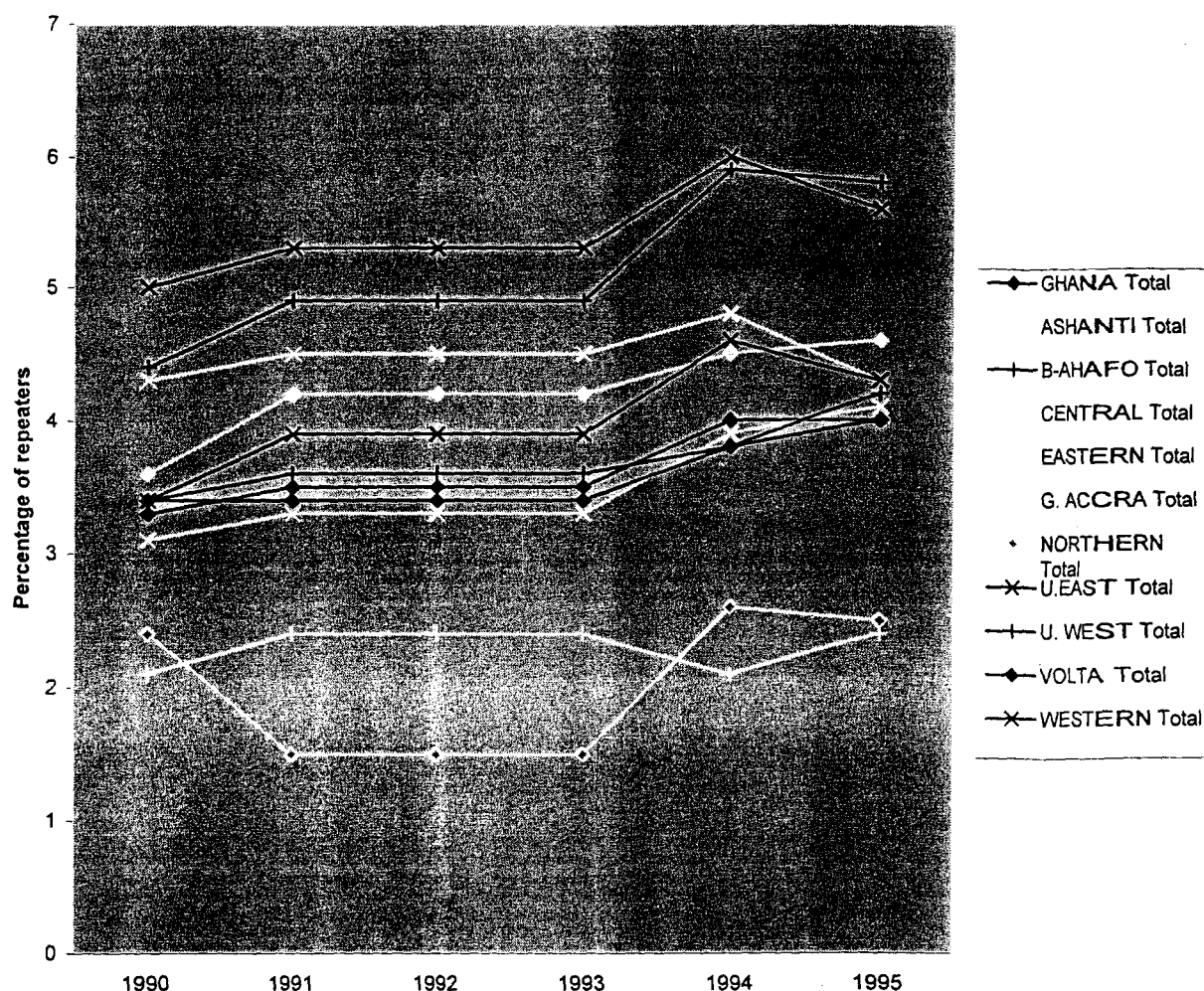
Female teachers in basic education are still in the minority, accounting for only 36 percent of all primary school teachers in the country in 1996. There are regional variations, however. For example, in Greater Accra over half (58 percent) of all primary teachers were female in 1996. On the other hand, less than a quarter (22.4 percent) of teachers in Brong Ahafo Region were female. The proportion of female teachers in all the other regions did not exceed 40 percent. Moreover, many female teachers are reluctant to accept postings to remote rural areas resulting in their proportional over-representation in urban locations. **There is therefore considerable room for improvement in the recruitment of female teachers, especially since this measure should yield considerable dividends in the enrolment of girls in school.**

3.4. Internal efficiency

3.4.1. Repetition

Repetition rates in primary school increased during the 1990s, reflecting a worsening of the internal efficiency of schooling. The average repetition rate for pupils in primary grades 1 to 5 rose from 3.3 percent in 1990 to 4 percent in 1995. These rates compared very favourably with rates of between 10 percent and 40 percent recorded in most SSA countries in 1992. For example, Burkina Faso, La Côte d'Ivoire and Togo had rates of 17 percent, 25 percent and 37 percent, respectively, in 1992 (UNESCO, 1995). The trends in repetition rates follow quite similar patterns for boys and girls. Likewise, the regions also follow similar patterns. However, there is some variation in regional trends. The Greater Accra and Northern Regions have the lowest repetition rates of 2.4 and 2.5 percent, respectively, in 1995. By contrast, the Upper East and West Regions had the highest repetition rates of 5.6 and 5.8 percent, respectively. Repetition rates are highest in P1, which had a national average of 6.7 percent in 1995. Again, Greater Accra and the Northern Regions are the best performers at this level with the Upper East and West Regions recording the highest repetition rates of 8.5 percent and 8.8 percent, respectively. It is likely that these low repetition rates are more the result of automatic promotion rather than excellence in teaching and instruction. The poor performance of P6 pupils on the CRT suggests that this is probably the case.

Figure 3.7: Repetition rates for P1 to p5 (all regions)



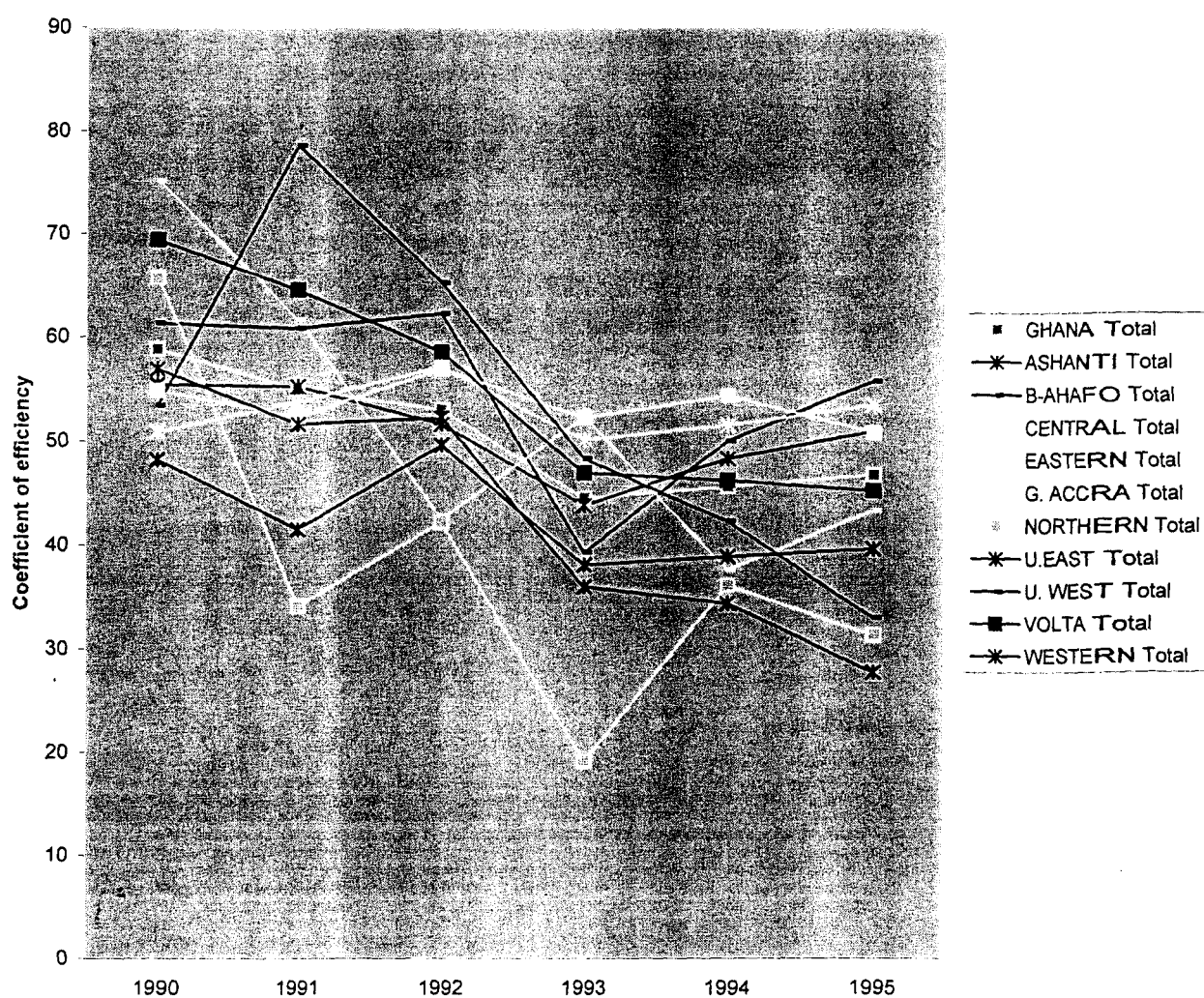
Source: Calculated from the annual series of education statistics published by Statistics Unit, SRIMPRD, MOE.

3.4.2. Coefficient of efficiency

The coefficient of efficiency summarises the consequences of repetition and dropout on the efficiency of the education process in producing graduates. The low repetition rates would suggest a high level of efficiency in primary education. However, this is not the case. The coefficient of efficiency at national level was under 50 percent (46.7 percent) in 1995. Moreover, the coefficient had fallen from a level of 58.8 percent in 1990 (Figure 3.8). These efficiency coefficients are disappointingly low and reflected the unduly long time that was required to graduate children from P6 in Ghana. In 1995 it was taking on average more than twice the number of years than ideal for pupils to graduate from P6. This represented a deterioration of internal efficiency in the educational system and a 26 percent increase in the amount of time that was required to graduate pupils from P6 in 1990. Gender disparity is significant: at 50.3 percent the average coefficient of efficiency for boys in the country in 1995 is nearly 20 percent better than the coefficient of 42.2 percent for girls.

The Brong Ahafo (55.7 percent) and Eastern (53.4 percent) Regions had the highest coefficients of efficiency in 1995. Ironically, Greater Accra Region, home to one of the best educationally endowed cities in the country, ranked sixth in terms of internal efficiency (44.3 percent). Regions with the lowest coefficients of efficiency in 1995 are the Upper East (27.7 percent) and Northern Regions (33 percent). Therefore, on the one hand, the best performing region required 80 percent as much more time than the ideal to produce a P6 graduate. On the other hand, the least efficient region required more than 360 percent more time than the ideal.

Figure 3.8: Trends in the coefficient of efficiency (all regions)



Source: Calculated from the annual series of education statistics published by Statistics Unit, SRIMPRD, MOE.

The principal explanation for the low efficiency of primary school is the high drop out rate. About 20 percent of boys and 30 percent of girls drop out from primary school (MOE, 1997)¹⁴. At the junior secondary level, about 15 percent of boys and 21 percent of girls drop

¹⁴ MOE dropout data need to be taken with some caution because of the lack of a comprehensive system to validate data or to record pupil transfers from one school to another.

out (MOE, 1997). These gender disparities explain the differences in the gender coefficients. Dropout rates in the regions of the north are significantly above the national average. In the East Gonja district of the Northern Region, for example, dropout rates for boys and girls are as high as 74 percent and 83 percent, respectively (MOE, 1997). Consequently the three northern regions had the lowest coefficients of efficiency.

Factors within the educational system that contribute to its low internal efficiency include: the availability and quality of teachers, class size and the ratio of teachers to pupils, the availability of teaching and learning materials and other physical inputs, and the quality of management and administration of schools. These factors also affect the quality of teaching and learning and are therefore discussed in Chapter 4. Poverty and the direct and indirect costs of schooling and the accessibility of schools are other important factors.

3.5. Financing of education

The main source of financing of the education sector is the central government. However, households also contribute substantially to funding education, accounting for about 23 percent of the total spending on education, including private schooling (Demery, et al 1995). This amounted to about 6 percent of total household non-food expenditure in 1992. About 18 percent of this spending went to tuition and school fees in both private and public institutions, despite the policy of free tuition in public basic schools. It is also likely that the poor quality of public schools is leading households to seek private sources of supplementary tuition for their children. Other schooling expense items faced by households are uniforms and other clothing, books and other supplies, transportation to and from school and food, board and lodging at school.

In the public sector, government dominates spending on education, accounting for about 82 percent of total official recurrent expenditures. Government spending on basic education for the period 1993-97 averaged 2.6 percent of GNP and 16 percent of all government spending. The bulk of education spending, averaging over 90 percent per annum, finances the recurrent budget. Spending by donors is also significant and is equivalent to about 15 percent of total government spending. Moreover, donor financing forms the major part of the education development budget. The other major source of funds for capital expenditure is the District Assembly Common Fund (DACF). Through utilisation of the DACF, District Assemblies have been increasingly involved in the provision of education infrastructure since 1993. Some District Assemblies also finance scholarship schemes for eligible pupils. Beneficiaries of these schemes seem few, however (Laryea Adjei and Brown Farhat, 1998).

The bulk of government spending on education goes to basic education (Table 3.4). Basic education has accounted for an average of about 67 percent of the total education budget during the 1990s. By comparison, about 15.9 percent and 11.9 percent of recurrent expenditure on education was allocated to secondary and tertiary education, respectively, in 1997 (MOE, 1998). The level of government spending on basic education has been equivalent to about 2.7 percent of GNP. This proportion compared favourably with shares of GNP of 1.8 percent, 2.2 percent and 2.6 percent, respectively, for public expenditure on all levels of education in Zambia, Mali and Uganda in 1995 (UNESCO, 1998). However, other SSA countries, for example, Namibia (4.5 percent) and Swaziland (3 percent), were devoting greater shares of their GNP to primary education.

Although total government spending on basic education has been significant in terms of total spending, it has been quite low in per capita terms, averaging less than 15 percent of GNP per capita between 1993 and 1996. Moreover, Demery and Squire (1996) report regressive elements in public spending on education. The poorest and richest 20 percent of Ghanaians gained 16 percent and 21 percent, respectively, of total government spending on education in 1992.

Table 3.4: Public financing of basic education

Year	Public current exp. On basic ed. as % of total public current exp. On ed.	Public current exp. On basic ed. as % of GNP	Public current exp. On basic ed. per pupil as % of GNP per capita
1990	64.4	-	-
1991	66.1	-	-
1992	66.3	-	-
1993	70.8	2.9	16.2
1994	65.4	2.1	12.2
1995	71.7	2.6	15.2
1996	65.4	2.6	15.7
1997	66.5	2.6	-
1998	66.7	-	-

Source: Ministry of Education

Note: - not available.

Salaries are by far the largest component in primary education expenditures, accounting for about 90 percent or more of public expenditures on primary schooling. This leaves very little to finance other important school inputs such as teaching materials like books, and other school supplies. This bias of the entire recurrent budget towards salary payments gives cause for concern because the remaining funds are inadequate to satisfactorily finance the maintenance of infrastructure and the supply of instructional materials. About 1.6 percent of total expenditure on primary education was spent on teaching material in 1994 (World Bank, 1998). Indeed, most primary schools lack the minimum infrastructure and materials necessary to ensure a satisfactory level of instruction. In some schools, students provide furniture themselves. Further, the vast majority of schools lack libraries, let alone science laboratories and workshops. In many instances even toilet facilities are non-existent. **The MOE should more vigorously seek to find ways in which it can redistribute its expenditures to ensure that more resources are allocated to critical non-wage educational inputs such as books and other school supplies.**

The challenges of expanding enrolments and improving the quality of basic education pose several strategic challenges to the MOE. Critical among these is the need (i) to develop the capacity to achieve effectiveness in the allocation and use of existing resources, and (ii) to increase the absolute levels of funding. In relation to the latter, it is important that as much effort is made to hold down unit costs (about US\$42 per basic school child) as is made to increase the absolute amount of educational funding. Efforts to increase the pupil-teacher ratios are therefore a step in the right direction.

Mobilisation of the resources required to finance education poses a considerable challenge. Central government is unable to bear the full costs of funding education unaided and, while continuing to rely on external sources for assistance, is now explicitly seeking to diversify domestic sources of funding. A particularly popular approach is cost sharing between governments and communities, which has been a customary practice pre-dating

independence. Families and communities, especially in rural areas, are frequently required to contribute to efforts to expand education by bearing not only the direct costs of their children's attendance but also the costs of building school facilities.

Given their relatively greater numbers, the poor and rural dwellers should for equity reasons receive the largest shares of education subsidies. However, as shown above, public spending on education is not pro-poor. Greater attention should therefore be paid by MOE to ensure that greater amounts of public resources earmarked for education are spent on the poorer members of society.

3.6. Relevance of the basic education curriculum

The formal education system has traditionally been predominantly geared toward preparing people for wage employment in the formal sector. However, the educational reforms initiated in 1987 aim to better align the curriculum of the school system with the skill requirements of an economy that is predominantly agricultural and with a large informal sector. Nonetheless, in practice many public schools tend to negate the life experience of many children, especially those of poor parents who earn their livelihood from agriculture or the informal sector. Such practice stultifies the growth potential of several children instead of recognising and developing their talents and the skills that are relevant to their lives.

This orientation in schools is based on attitudes that ignore the talents and basic skills that children bring to school. Instead of seeking ways to develop and build upon these endowments, there has been a tendency to pursue a curriculum that does not adequately reflect the realities of the environments in which pupils live or the desires of their parents. This is notwithstanding policy decisions to revise and reform the basic education curriculum. Even where local realities are recognised, as in the policy that instruction in primary school should begin in Ghanaian languages, relatively little effort has been made to act on these realities. Thus there is generally a very limited supply of Ghanaian language textbooks (MOE, 1995). At the national level, 24 books per 100 pupils in P1 were available in primary schools in 1993, falling to 19 books per 100 P1 pupils in 1995 (see section 4.3.4).

The majority of school-leavers enter the labour market with poor skills for employment and little hope of securing wage employment. This is as true for the children of both the poor and some of the non-poor. For the poor, more so than richer parents however, the direct and indirect costs of investing in education of children who will be unlikely to secure sufficient returns in the labour market is sometimes too high. In such circumstances several poor households decide not to enrol their children and choose instead to send them to work or perform unpaid household labour. Thus the relevance of what is taught in schools also has implications for the demand for schooling among the poor. In addition, many teachers are inadequately trained and unresponsive to the needs of the country's economy. They also tend not to be aware or interested in the changing needs of the emerging market economy. **Consistent policy and action to address the relevance of the curriculum and the problem of poor teachers is therefore required.**

There is need for teachers to be taught participatory methods and to include community talent, issues and resources into their classes. The medium-term aim of such action should be to facilitate growth of literate cohorts of school-leavers that are skilled in producing the goods and services that are in demand by their population. These cohorts of school-leavers

should comprise improved female representation and a better balance between rural and urban populations. In the longer term, **the educational system should seek to produce the technical specialisations needed to fuel economic growth.**

Questions about the relevance of educational curricula must be placed within the context of the current and planned structure and characteristics of the Ghanaian economy and of the careers that children will follow as adults. Aware of these challenges, the MOE has initiated the necessary measures to produce the required changes (MOE, 1998). However, many of these reforms seek mostly to introduce training in vocational skills into the curriculum of primary schools. While various justifications for the validity of vocationalising the primary curricula may be advanced, such initiatives nonetheless beg the question as to whether they are sufficient and take into account the problem of the vocational school fallacy that was identified in Ghana more than three decades ago (Foster, 1965).

3.7. Administration and management

A fundamental weakness within the education system that the MOE has recognised is the generally weak organisational capacity within the system for effective management and administration (MOE, 1998). The institutional capacity in such important areas as policy, administration, financial management, curriculum development, performance evaluation, teacher training, materials development and data and information collection and management is still inadequate. Consequently, the MOE has been unable to effectively resolve the major systemic problems in the sector. These problems include misallocation and maldistribution of resources; poor quality of school management; shortages, absenteeism and poor distribution of teachers; inadequate supplies of teaching materials; and the inadequate relevance of the curricula to the lives and conditions in which people live.

An essential requirement for the development of the educational system and the achievement of quality education is strong analytical and planning capabilities that are fully integrated into the policy making process. This requires sound analytical skills organised in well-staffed policy and planning offices at national and lower levels that work to ensure good decision making by educational leaders and the efficient allocation of resources within the educational system. However, the capabilities for policy analysis and strategic planning have never been developed properly. The present reality is that the lack of staff, information, and resources effectively reduces the functions of planning offices to the mere collation and publication of statistics. Inadequate time and effort is spent on researching, analysing and advising decision and policymakers on questions of fundamental importance to the administration and development of education. In part, this situation has been due to a lack of demand for advice based on research and empirical data by top policy and decision-makers. These deficiencies have been recognised and measures have been instituted to strengthen the quality and flow of the management information and budget and financial systems (MOE, 1998).

Another dimension of the weaknesses in the administration and management of the system that has been recognised is its generally centralised character. Consequently, in line with the Government's decentralisation policy, efforts are currently being made by the MOE to decentralise the administration and management of the school system to districts and schools. Even so, centralised decision making and administration by formal directives are still dominant despite efforts to decentralise responsibility for basic education to district level.

Also, resources and their flow continue to be controlled or manipulated from higher levels and lower-level managers typically pass along important decisions to higher levels. The flow of information and decisions is therefore full of bottlenecks. In consequence, schools tend to be alienated from their local communities and environments, and the ability to respond to local needs and resource opportunities is limited. **An increased reliance on local initiative would diminish the need for such information flows or alleviate the consequences of their not occurring.** Hence, as recognised by the MOE, by supporting school autonomy decentralisation can contribute significantly to better school management.

In addition, **decentralisation increases the responsiveness of the school to the local community – and of the community to the school.** This is because decentralisation promotes a sense of ownership of schools and the education process among community members. Decentralisation also promotes the recognition by parents of their roles and responsibilities regarding the education of their children. Recognising that educational plans and programmes cannot effectively succeed through top-down activities of politicians and public servants, the MOE is currently trying to encourage communities to participate more fully in the life of schools. Consequently, the establishment of local structures such as school management committees (SMCs) is being encouraged, especially in areas that have the lowest school enrolment ratios. SMCs comprise community representatives, and district and school officials. Their functions are primarily to be involved in overseeing the management of schools, participating in school appraisals and deciding on school development priorities regarding, for example, whether to rehabilitate or expand infrastructure.

Chapter 4: Learning Achievement

Trends in the quality of education in recent years have been a major cause for increasing concern about the competence of public basic schools. During the 1960s, Ghana was acclaimed for having one of the best education systems in SSA. However, by the early 1980s the quality of instruction in public schools had deteriorated considerably. The disappointing performance at the basic level of education and the magnitude of the challenge of improving the quality of instruction is graphically illustrated by the results on the criterion-referenced test (CRT) that has been conducted in the 1990s on samples of primary 6 pupils. Indeed, the saddest commentary on the state of education during the 1990s is the extraordinarily low pass rates that have been achieved by pupils on the CRT since this measure was instituted in 1992. So far, substantially fewer than 10 percent of national samples of pupils have demonstrated satisfactory competence on tests in English and Mathematics in each year the tests have been administered. Disappointing results have also been achieved on the Basic Education Certificate Examination (BECE) during the 1990s. Box 4.1 outlines another system that the MOE is developing to monitor and evaluate basic school performance.

4.1 The criterion-referenced test (CRT)

Because of its strengths, the CRT is used by the MOE as a mechanism for assessing national progress in educational achievement in primary schools. It was initially instituted as a mechanism to assess whether measures aimed at improving teaching and learning in basic schools that the ministry had initiated with USAID support were actually helping to improve the quality of education. CRTs are administered annually in English and Mathematics to monitor achievement at Primary 6. The tests are especially designed to provide accurate information on the learning status of pupils on the school syllabus since the scores obtained on the CRT reliably reflect what pupils know with respect to the objectives of the syllabus that has been followed. Consequently, it can be inferred that a pupil scoring 70 percent, for example, on a test knows 70 percent of the subject material that was studied.

The tests are administered to a randomly selected five percent sample of Primary 6 pupils. This sample size provides the minimum number of pupils that would give the MOE a specified confidence level in generalising from the performance of the sample to that of the population of Primary 6 pupils across the country. The sample includes pupils from both public and private schools. Accordingly, results on the tests provide comparative information on the performance of public and private primary schools.

As acknowledged by the MOE, results on the CRT have been distressingly poor since its introduction, especially in public schools. Table 4.1, shows that the mean scores achieved by pupils on the English test has so far been below 35 percent. In mathematics, performance has been even weaker: below 30 percent. On a brighter note, the data show that in every year the performance of pupils on the tests has slowly but steadily improved. However, only extremely small proportions of public school pupils attain mastery score levels of 60 and 55 percent, respectively, for English and Mathematics, on the CRT. Interestingly, in terms of gender there are only relatively minor, but statistically significant, differences between boys and girls in performance in Mathematics but none in English (Table 4.2). While boys have so far consistently scored higher than girls in mathematics, the difference narrowed in 1997 and is expected to continue narrowing in future years.

Table 4.1: National CRT results by percentage mean scores (public schools)

Subject	1992	1993	1994	1995	1996	1997
English	29.9	30.9	31.0	31.6	33.0	33.9
Mathematics	27.3	27.4	27.7	28.8	28.8	29.9

Source: MOE, Criterion-Referenced Tests (1992-1997). Performance of Pupils in Basic Schools, 1999.

Table 4.2: Differences in gender performance in public schools

Year	Gender	English	Mathematics
1992	Boys	30.3	28.0
	Girls	29.5	26.4
1995	Boys	31.7	28.7
	Girls	31.4	27.4
1997	Boys	33.8	30.5
	Girls	33.9	29.3

Source: MOE, Criterion-Referenced Tests (1992-1997). Performance of Pupils in Basic Schools, 1999.

Table 4.3 shows that on the English test, only 6.2 percent of all public school pupils attained the criterion score in 1997. Even poorer results have been obtained for mathematics in which only 2.7 percent of pupils displayed mastery of the subject. These results were nevertheless better than the respective levels of 2 percent and 1 percent that were achieved in 1992.

Table 4.3: <u>Results of criterion-referenced tests (selected years)</u>				
	English		Mathematics	
	Public	Private	Public	Private
Percentage of Pupils Reaching Mastery Score Levels				
1994	3.3	51.4	1.5	31.7
1996	5.5	56.5	1.8	31.0
1997	6.2	68.7	2.7	40.4
Mean Scores				
1994	31.0	58.8	27.7	47.3
1996	33.0	61.0	28.8	47.0
1997	33.9	67.4	29.9	51.7

Source: MOE (1997), 1996 Report on the Administration of Primary 6 Criterion-Referenced Tests; and Quansah (1998)

The Greater Accra Region, the administrative region best endowed with instructional inputs, has recorded the best performance since 1992. In 1997, 20.3 percent and 7.2 percent of its candidates passed the tests in English and mathematics, respectively, with respective mean scores of 44.2 percent and 34.8 percent (Table 4.4). The Central and Upper West Regions ranked second and third in 1997, displacing the Western and Upper East Regions that had held these positions in the previous five years. In the Central Region, 11.7 percent and 4.9 percent passed in English and Mathematics, while Upper West recorded pass rates of 11.5 and 4.7 percent. The Central Region had ranked ninth in both English and Mathematics during the first five years that the

CRT had been administered. The sudden jump of the Region to second position in 1997 is therefore quite remarkable. A contributory factor in this could have been the considerable improvement in both teacher presence and punctuality at school that occurred during the early 1990s when compared with other regions (MOE, 1995). The poorest performing regions in 1997 are Ashanti and Northern Regions.

Significant differences in performance also exist between urban and rural areas. For example, in 1993/94 7.2 percent of urban public school pupils attained the pass score in English, compared to 1.3 percent for those in rural schools. The performance of rural school pupils on the mathematics test was even less impressive.

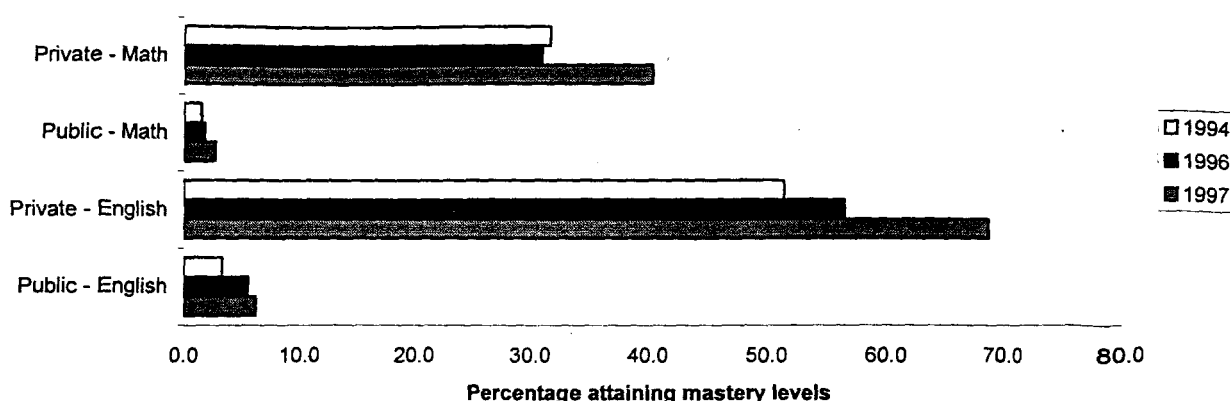
Table 4.4: Regional performance of public school pupils in English and Mathematics, 1997

Region	English		Mathematics	
	Mean score	% reaching mastery level	Mean score	% reaching mastery level
Ashanti	30.4	1.4	28.9	1.7
Brong-Ahafo	31.7	3.6	38.1	1.1
Central	35.5	11.7	31.0	4.9
Eastern	32.9	3.6	29.6	1.0
Gt. Accra	44.2	20.3	34.8	7.2
Northern	31.2	3.1	26.7	1.0
Upper East	34.0	6.1	31.4	4.3
Upper West	38.4	11.5	32.3	4.7
Volta	32.7	3.7	29.5	1.5
Western	32.5	3.5	29.9	2.8

Source: MOE, Criterion-Referenced Tests (1992-1997). Performance of Pupils in Basic Schools, 1999.

Pupils in private schools perform considerably better than their public school counterparts. About 69 percent of private school pupils, for example, scored above the required mastery level of 60 percent in English in 1997, compared to about 6 percent of public school pupils (Table 4.4 and Figure 4.1). In Mathematics, 40 percent of private pupils demonstrated mastery compared to less than 3 percent of public school pupils. It is sad testimony, however, that while performance in private schools is significantly better than in public schools it can best be described as moderate by international standards. In the 1997 tests, private schools pupils scored an average of 67.4 percent in English, and 51.7 percent in Mathematics.

Figure 4.1: National performance on CRT by sector, 1994 to 1997



4.2 The BECE

Another indicator of quality is the Basic Education Certificate Examination (BECE) which is sat by pupils in the last year of junior secondary school, JSS3. Besides serving as a certificate of satisfactory completion of basic school, the BECE also serves as the qualifying examination for entry to senior secondary school. Results on the BECE for the 1990/91 to 1995/96 academic years are shown in Table 4.5. Given that public schools accounted for 87 percent of total primary enrolments in 1996 and the extraordinarily poor public school CRT results, it perhaps should not be surprising that the levels of literacy and numeracy are also low on graduation from the basic education cycle. In the rural areas especially, it is not unusual to find junior secondary school (JSS) graduates who are unable to spell their own names.

Year	JSS Enrolment	BECE Candidates	Number who passed BECE	Number qualifying for SSS	Enrolment in SSS in following school year
1990	161,297	149,038	121,255	72,870	57,384
1991	169,716	165,359	138,527	89,022	61,455
1992	184,320	181,810	153,966	102,642	74,735
1993	197,637	198,754	168,596	123,841	71,676
1994	200,648	202,718	168,596	121,771	65,874
1995	207,127	209,983	169,162	126,791	71,681

Source: Statistics Unit, SRIMPRD, Ministry of Education

While over 80 percent of candidates passed the BECE with aggregate scores of between 6 and 36, what is striking is that less than two thirds of pupils nationally did sufficiently well on these examinations to qualify for admission to a senior secondary school between 1991 and 1996. In Brong Ahafo, Greater Accra and Western Regions, fewer than half of BECE candidates did sufficiently well in the 1995/96 school year to qualify for admission to senior secondary school the following year. These performance levels are far below those that may be considered cost effective given the resources provided.

Box 4.1: Participatory performance monitoring system (PPM) for basic schools

In addition to the CRT, the MOE is piloting another system for testing academic learning and performance in primary schools. The PPM is a system designed to test a 25 to 50 percent sample of pupils in each class of the public primary schools system, while promoting community involvement and participation in the running of schools. Results from these tests are discussed at community, circuit and district levels with a view to assessing school learning performance, and identifying problems and their determinants in order to introduce strategies and mechanisms to improve teaching and learning in primary schools.

Core principles that underlie the system include:

- Accountability, transparency and active community participation which are crucial for achieving quality improvements in education
- Accountability of teachers to their communities for the performance of their pupils
- Empowerment of communities to assume responsibility for their schools
- Timely and regular communication of performance monitoring tests to communities in order to promote and maintain their interest and to have a lasting impact.

Objectives of the system are to:

- a. obtain reliable information and data on the performance of each public basic school in literacy and numeracy
- b. identify those teachers who produce good results for appropriate reward
- c. identify those teachers who produce poor results for appropriate support or sanction
- d. increase community awareness of education quality issues
- e. establish the accountability of teachers to their communities
- f. strengthen community ownership of schools
- g. enhance community interest in and support for schools
- h. generate healthy competition on academic performance among schools and communities
- i. improve learning achievements in literacy and numeracy in public basic schools.

Source: MOE.

4.3. Causes of low performance and internal efficiency in public basic schools

Several weaknesses and deficiencies within the educational system contribute to the poor performance of pupils on the CRT and BECE. These include, for example, the quality and supervision of teachers, the actual school attendance of pupils, and the availability of teaching and learning materials. In an effort to address some of these problems the MOE implemented a Primary School Development Project (PSDP) between 1993 and 1997, findings from an impact assessment survey of which are reported below (see MOE, 1995).

4.3.1. Teacher qualifications

The percentage of trained teachers by region and gender between 1990 and 1996 is shown in Table 4.6. At the national level, 71.7 percent of all teachers in 1996 were certified, showing a 34.7 percent increase over the 1990 ratio of 53.2 percent.

Table 4.6: Percentage of certified teachers, 1990 – 1996

		1990	1991	1992	1993	1994	1995	1996
GHANA	Total	53.2	61.3	61.9	65.2	70.3	74.2	71.7
	Male	48.7	56.6	55.5	57.6	64.8	67.1	63.8
	Female	61.5	69.8	73.6	79.2	80.7	86.4	85.9
ASHANTI	Total	58.9	62	65.3	67.6	73.2	77.5	71.6
	Male	56	58.2	59.7	60.2	67.2	69.3	62.2
	Female	63.5	67.7	74.3	80	83.7	90.9	87.4
B-AHAFO	Total	42	53.8	53.7	55.9	64	66.5	65.5
	Male	41.6	52.7	51.6	52.8	61.7	63.4	61.9
	Female	42.9	57.1	59.8	65.1	71.4	76.8	78
CENTRAL	Total	57.8	63.7	64.4	65.1	70.5	72.8	71.1
	Male	56.1	60.5	60	60	67.6	68.5	64.1
	Female	61.1	70.1	72.7	74.9	75.9	79.6	82.6
EASTERN	Total	59.2	69.1	69	70.7	75.3	77.7	76.2
	Male	54.7	63.8	62.6	63.2	71	71.6	69.1
	Female	67.4	79.2	81	85.2	83.4	88.4	88.3
G. ACCRA	Total	62.7	64.4	65.7	68.3	69.4	70.8	66.4
	Male	40	42.3	44.2	45.3	52.2	45	41.2
	Female	79.7	81.2	83.3	86.4	84.6	87.5	84.9
NORTHERN	Total	27.1	46.3	36.8	48.6	55.5	69.9	65.6
	Male	25.4	46.7	32.6	41.8	49.1	65.5	59.8
	Female	31.2	45	49.1	69.2	75.3	81.1	83.1
U.EAST	Total	48.2	51.9	62.5	69.8	78.4	85.2	78.6
	Male	47.8	51.4	58.4	65.6	77.1	79.8	72.2
	Female	48.8	52.7	68.8	77	80.8	94.3	90.4
U. WEST	Total	58.5	66.3	73.3	79.8	80.5	84.5	83.8
	Male	59.7	67.6	71.1	73.9	76.4	78.9	77.6
	Female	56.5	64	76.8	90	87.9	93.7	94.1
VOLTA	Total	61.6	74.7	74.7	79.6	81.4	86.1	86.1
	Male	59.2	73.4	72.1	75.8	79.4	82.7	82.5
	Female	66.9	77.2	79.7	87	85.7	92.5	92.9
WESTERN	Total	42.1	49.5	49.7	51.8	58.2	60.9	62.1
	Male	38.4	44.8	44.5	45.6	53.5	53.9	54.4
	Female	51	61.5	62	66.3	69.7	76.7	79.9

Source: Statistics Unit, SRIMPRD, MOE

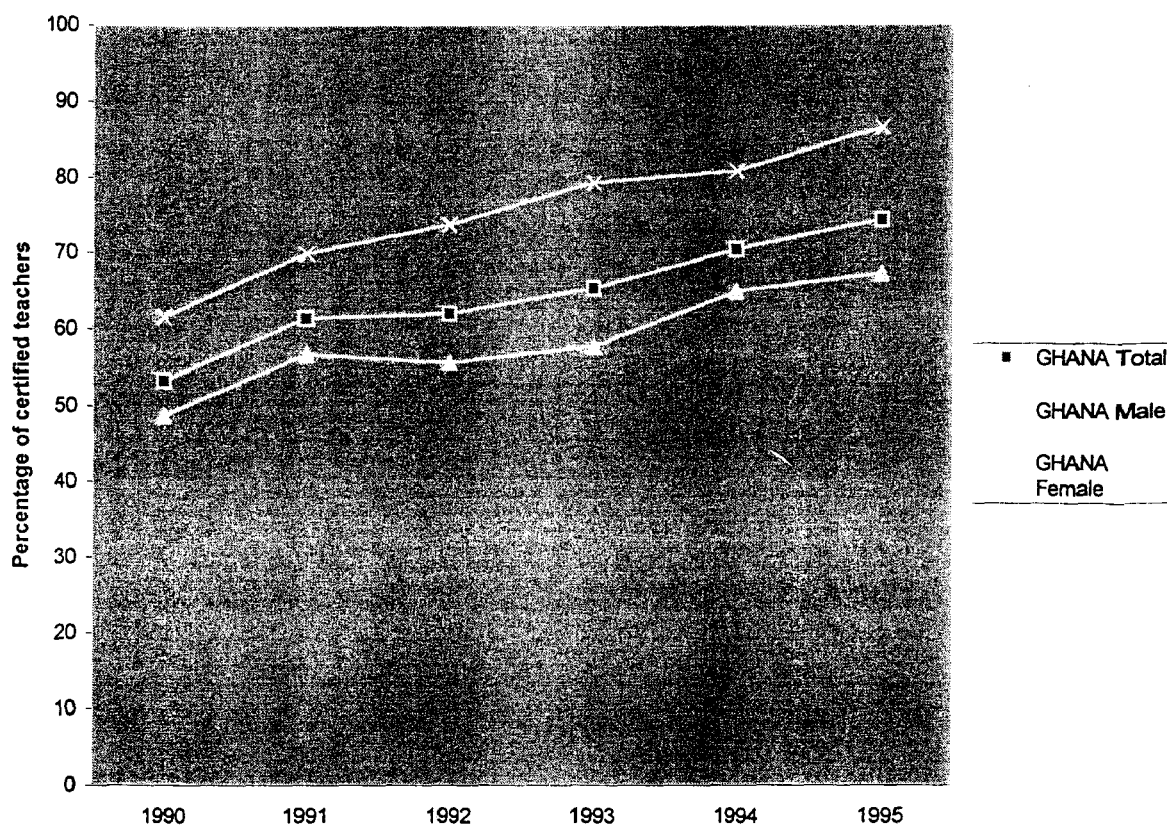
An interesting feature is that, while substantially fewer in numbers, a markedly higher proportion of female (85.9 percent in 1996) than male teachers (63.8 percent) are certified (Table 4.6 and Figure 4.2). Also, 92 percent of female teachers possessed the necessary academic qualifications for the profession compared to 69 percent of male teachers in that year.

All regions registered an increase in the proportion of trained teachers. These increases are highest in the Northern Region (a remarkable 142 percent) and lowest in the Greater Accra Region (a modest 5.9 percent) which, in any case, had 130 percent more trained teachers than the former region in 1990.

At district level, a general improvement in the percentage of trained teachers in most districts has been achieved (MOE, 1995). Notwithstanding this fact, a few districts had a very low percentage of trained teachers. The lowest percentage of trained teachers in 1995 were exhibited by Zabzugu Tatale District (14.3 percent in the Northern Region, Asunafo District (37.5 percent

in the Brong Ahafo Region, and Juabeso-Bia (38.8 percent) and (40.0 percent) Jomoro Districts both in the Western Region.

Figure 4.2: Certified primary school teachers by gender



Source: Calculated from annual series of education statistics published by the Statistics Unit, SRIMPRD, MOE

The certification of teachers does not necessarily guarantee competent teaching. A critically important contributory factor to the quality of teaching is the quality of teacher training. However, the quality of teacher training has been assessed as deficient. Particular weaknesses in teacher training that have been identified include:

- insufficient training in teaching methodologies and practical teaching but an overemphasis on academic content in what is taught and tested in teacher training colleges;
- too little exposure of pupil teachers to schools and classroom management practices;
- inadequate differentiation in training colleges between primary school teaching, where teachers must teach all subjects in the curriculum, and junior secondary school teaching where subject teaching of up to about 3 subjects is the norm; and
- poor preparation of teachers to handle the new directions in the educational curriculum that are being designed as part of the current educational reforms (Awuku, 1997).

Remedial measures that can improve and strengthen the quality of teaching include refresher courses and other forms of in-service training. In-service training refreshes and increases the

teacher's knowledge and pedagogic competence thus, improving the effectiveness of the teacher. As such, the more a teacher attends in-service training courses the better the teacher is equipped to teach. About 49 percent and 41 percent, respectively, of male and female teachers attended one or more in-service training programmes during the 1995/96 academic year (MOE, 1995). Among male teachers, the highest percentage of teachers that received in-service training was in the Upper West Region (72.5 percent), and the lowest in the Western Region (28.6 percent). Among female teachers, the Upper West Region had the highest proportion of teachers (63.7 percent) that received in-service training while the lowest (23.0 percent) is in the Western Region. As reported by the PSDP survey, there is still room for improvement so far as in-service training of teachers is concerned.

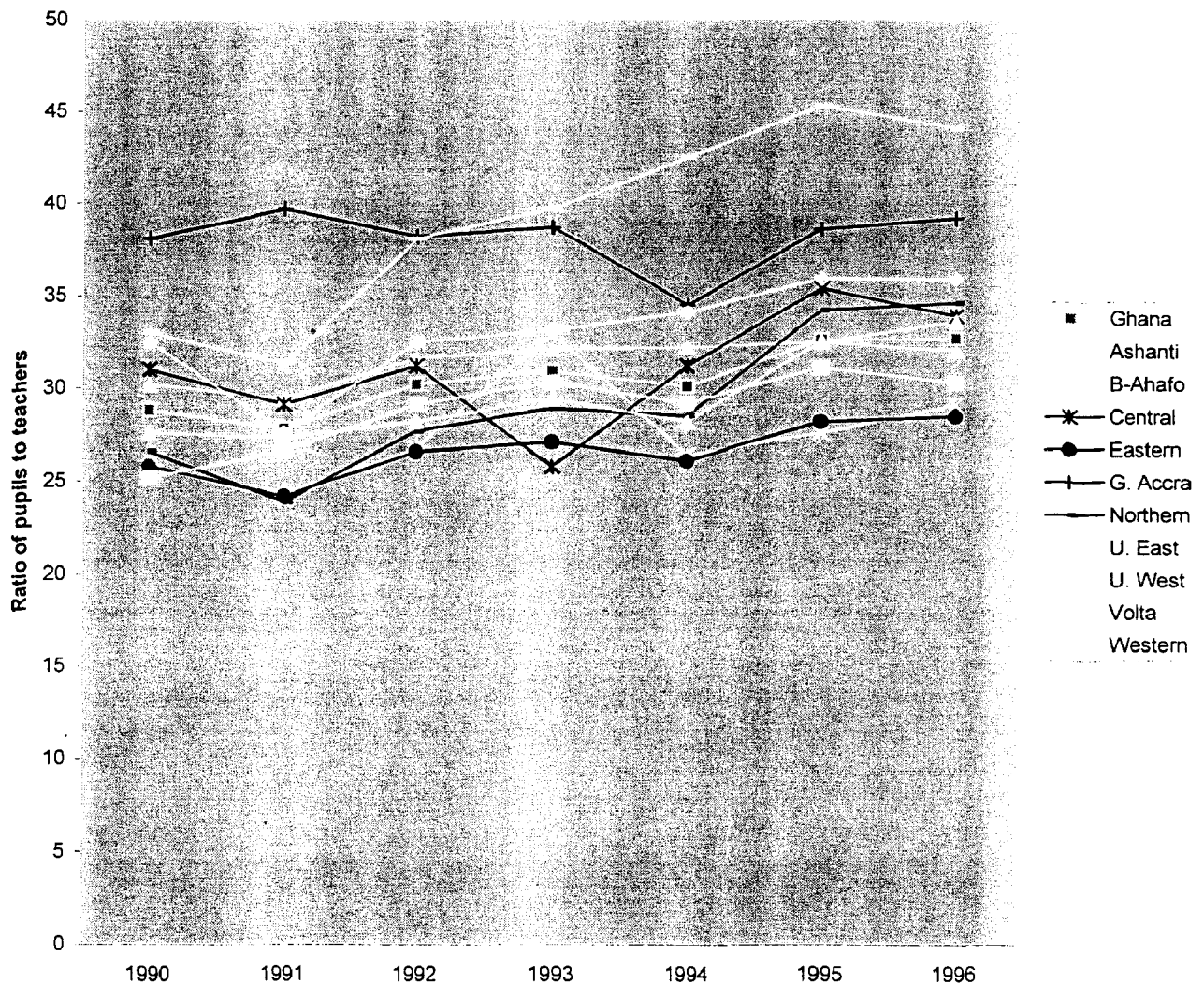
A very important factor that affects the quality of teaching is the degree of commitment to the profession among teachers. Many people apparently enter teacher-training colleges with little interest in working as teachers. They do so as a strategy to improve their academic qualifications with a view to improving their marketability on the employment market. Moreover, many of those who may want to teach leave the profession after a few years either because of dissatisfaction with the conditions of service or because they are posted to schools in areas they do not like.

A (crude) indicator of the commitment of teachers to their profession is the length of time they have spent as teachers. The length of teaching experience may also be used as a crude proxy for the quality of teaching since the teaching experience of a teacher is normally related to the number of years the teacher has taught. In 1995, 50.2 percent of male teachers and 36.1 percent of female teachers had teaching experience of 8 years or more (MOE, 1995). For males, the percentage of teachers who have taught for 8 years and over is highest in the Volta Region (58.1) and lowest in the Upper East Region (36.2). For females, the percentage of teachers who have taught for 8 years or more is highest in the Volta Region (46.4 percent) and lowest in the Upper West Region (17.2).

4.3.2 Pupil-Teacher Ratios

The number of teachers in the country classified by region is shown in Appendix Table A3.5 Table 4.3 shows trends in pupil-teacher ratios (PTR) for the period 1990 to 1996. At the national level, the PTR in 1996 is 32.7:1 showing an increase of 13.5 percent over the 1990 ratio of 28.8:1. At regional level, the PTR is highest in the Upper East Region (44.1:1) followed by the Greater Accra Region (39.2:1) showing percentage increases of 33.6 percent and 2.9 percent, respectively when compared with corresponding figures for 1990. The regions with the lowest PTR in 1996 are Eastern Region (28.5:1) and Brong Ahafo Region (29.1:1). The respective percentage increases in the ratios since 1990 were 10.5 percent and 12.8 percent.

Figure 4.3: Primary school pupil-teacher ratios (all regions)



Source: Calculated from annual series of education statistics published by the Statistics Unit, SRIMPRD, MOE

At district level, the PTR was highest in Bongo District (70.2:1) in the Upper East Region in 1995 (MOE, 1995). In this district in particular, the PTR in P2 and P6 were respectively 124:1 and 97.5:1. High PTR figures in P2 (140.8:1) and P6 (76:1) were also exhibited in the Nadowli District in the Upper West Region. These figures show a gross lack of teachers in the Upper East and West Regions, a situation that requires serious attention and urgent remedy.

4.3.3 Attendance and punctuality

Attendance and punctuality are necessary conditions for effective learning and the efficient running and supervision of schools. Teachers are expected to arrive in school in good time to supervise teaching and learning as well as extra curricular activities. However, this likely to be done effectively if the teachers are staying either on the school premises or near the school. Although a majority of teachers stays within 1km radius from the school (i.e. 71.4

percent for males and 62.2 percent for females, MOE, 1995) a sizeable number live far from their schools due to lack of accommodation near the school. Pupils' attendance at school throughout the school year is also somewhat irregular. While the attendance rate increases from P1 to P6 for the first term, there is an erratic pattern with respect to the other grades during the second term (MOE, 1995).

In all, teacher and pupil attendance at school has been generally poor or erratic, thereby compromising the depth and breadth of learning, especially in the rural areas. The PSDP Assessment Survey found no marked improvement in the school attendance by both teacher and pupils during the period of study. Many teachers have to commute over long distances between their homes and schools. Consequently classes typically commence late though closing time is strictly upheld, resulting in the loss of instructional time and teacher/pupil contact hours. Other factors that reduce instructional time are the events and functions organised by the Districts and Regions in which pupils are required to participate and practise. Further, teachers spend several hours of official time conducting staff meetings. The themes of these meetings were very often were not directly related to academic work. Also, pupils spend a lot of official time on activities not directly related to academic work. In addition, they spent a good amount of official time outside the classrooms.

4.3.4 Availability of textbooks

As far as textbooks and other teaching materials are concerned, available information shows that a meagre 1.6 percent of public expenditure was invested on teaching materials in 1994 (1998 World Development Indicators). Low spending on teaching materials has negative effects on the quality of education. Moreover, it is the children of the poor who are most likely to be inadequately exposed to material that can help them learn and acquire skills that can help them move out from poverty.

The importance of textbooks in the teaching and learning process cannot be overstated. They play a vital role by helping the teacher not only in preparing his lessons notes in advance, but also to revise and organise the learning activities to match the level of cognitive development of the pupils in a given grade. While pupils use the textbooks to revise their lessons and to work exercises both at school and at home, adequate supplies of these saves instructional time by avoiding unnecessary time wastage entailed in copying exercises and lengthy texts on the chalkboard. With regard to blackboards, most are so worn through overuse that they are of relatively little value and need replacement. While vast regional variations exist in the supply of new furniture and equipment, the overall national picture remains gloomy.

The supply of textbooks is slowly improving but is far from satisfactory (MOE, 1995). While on the one hand, the supply of mathematics textbooks to primary schools seems to be encouraging, the level of supply of science and social studies textbooks cannot be described as satisfactory and the ideal situation of a copy of textbook per pupil is rather remote. The situation is even less encouraging with respect to English and Ghanaian languages. With the exception of P6 where supplies of English textbooks have shown slight improvement, the supply of the textbook to other grades as well as that of the Ghanaian Language textbooks, which was already woefully inadequate, actually went down further in 1995. For example, in the Upper West Region, not a single book existed for 100 pupils in primary grades 3 to 5. The Upper East Region also recorded no book for 100 pupils in P1. Ashanti Region recorded the highest levels of supply for

the grade in the Lower Primary (grades 1 to 3) ranging from 33 copies per 100 in P3 to 59 copies in P1. Even with the mathematics textbooks, a more ideal situation would be an equitable regional allocation of a copy of the textbook to each pupil, which is not yet the case.

However, teachers are able to distribute books sufficiently well among pupils in science and social studies classes to help them study despite the handicaps created by the general shortage of textbooks (MOE, 1995). In addition, there are bright spots with respect to the supply of books dotted around the picture. For example, as many as 121 copies of English textbooks per 100 pupils were recorded in the Ashanti Region in 1995. In addition there was improved supply levels of these books in primary six in all the regions. This may be attributed to the annual conduct of the CRT where poor results in the public schools have prompted educational authorities to see the need to provide more textbooks. However, they might have wrongfully limited fresh injections of the textbooks to primary six at which grade the CRT is administered. The very poor 1997 CRT English results in the Ashanti Region provide some support for this view.

The objective of increasing access to education, especially at basic level, remains a major target for the MOE. The meaningful attainment of this objective must be coupled and supported by the adequate supply of school textbooks and other instructional materials. However, Government still faces constraints in providing schools with the desired quantities of textbooks and other materials, and the debate as to whether parents should buy books for their wards as a cost-sharing measure or that Government should adopt a fee-free textbook system continues. The liberalisation of trade and movement towards free-market economy has however made textbooks and other learning materials available on the market although prices quoted are often beyond the reach of the great majority of parents.

4.3.5 Inspection and management of teachers

The management and supervision in schools is another area of crucial importance and one that gives rise to serious concern. Weak management and supervision affect performance levels because teachers they allow teachers not to make effective use of official instructional time. The PSDP Assessment Survey reports that while on the one hand, it appears that Circuit Supervisors are performing well as external supervisors, the majority of the schools are not visited by District Monitoring Assistants (DMAs) in the course of the year as a result of their small numbers. As many as 30 of the 110 districts do not have any DMA. Consequently, the study found that of the 1,983 project schools it surveyed as many as 169 schools had no visits at all from any educational authority throughout the year, and 723 schools had only one or two visits (PSDP 1995 Impact Assessment Survey).

Another important factor is the interest and involvement of parents and communities in school affairs. The superior performance of private over public primary schools demonstrates the difference that the combined efforts of parents, head-teachers and teachers can make to provide a supportive school environment for learning. Undoubtedly motivated by the level of direct costs they bear as well as interest in the progress and welfare of their children, parents who patronise private schools tend to be more active in the lives of the schools, generally through parent teacher associations (PTAs).

4.4 Conclusion

The MOE is very dissatisfied with the current low standards in basic education because these affect the standard of work at subsequent levels of education. The low standards in basic education are caused by a number of problems within the school system and the larger society, all of which need to be tackled at the same time. Both teachers and parents have significant roles to play in raising the level of performance of public schools. Teachers need to be better trained, motivated and compensated for their work. Parents need to show more interest in what their children are learning in school in order to spark and promote children's interest and ambition for schoolwork.

Under the fCUBE programme, the MOE is implementing a number of measures aimed at raising the quality of teaching and learning in schools. These include the development of new syllabuses for basic education, senior secondary schools and teacher training colleges, that focus on equipping young people with critical and rational thinking skills that will enable them to analyse and apply knowledge rather than just to memorise information. Since research shows that students who have their own copies of the syllabus do better in school, the ministry plans to print enough syllabuses to enable parents and pupils to buy their own copies for self-study. Training programmes are also planned for teachers to enable them to teach the new set of syllabuses.

Another measure is the strengthening of the educational decentralisation process in order to promote District control in the supervision of schools. Success in the decentralisation process will help to improve the school management and supervision process, which is possibly the strength of private schools and a factor in their superior performance in teaching and learning. The ministry is also working to identify, with support from such donor partners as CIDA, UNICEF, USAID and the World Bank, best practices for the teaching and learning processes, and effective ways of organising community participation in education. With results from all these initiatives the MOE hopes to be able to improve teaching and learning in schools to a very significant degree.

Chapter 5: Adult literacy and training

The Government has been very active during the 1990s in the promotion of adult literacy. Churches and NGOs spearheaded adult literacy activities before independence, with Government quickening the pace during the 1950s and 1960s. Following a decline in momentum during the 1970s and 1980s the National Functional Literacy Programme (NFLP) was launched in 1989 in two pilot areas: Apam-Winneba and Tono-Vea in the south and north of the country. Lessons from these pilots led to the Literacy and Functional Skills Project (LFSP) which was implemented within the framework of the NFLP from 1992 to 1997. The success of the LFSP has resulted in the formulation of a second phase of the project to be implemented from 1999 to 2004.

The LFSP was planned to provide basic literacy to 840,000 learners. By the end of December 1997, this target had been exceeded significantly: about 900,000 people had graduated from basic literacy and numeracy programmes in 15 local languages and an additional 207,000 were undergoing training. Development knowledge in basic agriculture and environmental hygiene had been imparted to all learners. Women constituted 60 percent of learners and all 110 administrative districts of the country had been reached (Laryea Adjei and Brown Farhat, 1998)¹⁵.

Table 5.1: Participants in the Literacy and Functional Skills Programme: 1992-1998

	Learners Recruited			Graduated				Drop-outs			
	male	female	total	male	female	total	% graduated	male	female	total	% drop-outs
1992/94	80224	121536	201760	66586	100875	167461	83.0%	13638	20661	34299	17.0%
1994/95	108078	170131	278209	83137	126626	209763	75.4%	24941	43505	68446	24.6%
1995/96	85488	125738	211226	65915	108144	174059	82.4%	19573	17594	37167	17.6%
1995/97	82615	126611	209226	71712	103719	175431	83.8%	10903	22892	33795	16.2%
1996/98	87120	132179	219299	70153	105230	175383	80.0%	16967	26949	43916	20.0%
	443525	676195	1119720	357503	544594	902097	80.6%	86022	131601	217623	19.4%

Source: Monitoring Section, Non-Formal Education Division, MOE

Besides promoting adult literacy, the most important long-term impact of the NFLP has been the "introduction of the literacy class as a new social formation in the social world of the community" (NFED, 1998). The literacy class has provided a new site for learning for adults and promoted the fact that learning is not only for children, but also for all ages. Another positive benefit of the project was that it promoted the use of acquired skills in improving the lifestyle of learners. Learners are using their literacy skills as they make transactions with shopkeepers, for example, or when they are at the post office and are practising better environmental hygiene. Thus the NFLP has made a significant contribution to the achievement of the goals of adult literacy as identified at the Jomtien Conference

The performance of learners in the LFSP appears to have been generally positive (Table 5.2). Men and women appear to have learned nearly equally as well as each other in all learning domains. About 70 percent of participants obtained above average scores in all subject areas except reading. However, test items for writing and numeracy skills have been assessed as

¹⁵ This document is the main source of information for this chapter.

not being sufficiently challenging (NFED, 1998). Moreover, reading and comprehension tests were chosen from the literacy primer and not a previously unseen passage, thereby providing an opportunity for rote memory to influence performance. The general impression is nevertheless that of a positive foundation being laid, which requires continuous monitoring and restructuring.

Table 5.2: Performance of Learners by Domains tested, and by Gender

Domain tested	Male			Female		
	Below Average	Average	Above Average	Below Average	Average	Above Average
Writing	8.0	23.7	68.3	8.6	24.3	67.2
Reading	18.7	42.7	38.6	19.5	42.4	38.1
Cognitive	5.2	27.7	67.1	5.2	27.8	67.0
Attitudinal Change	6.9	37.2	55.9	7.0	37.2	55.8
Functionality	5.2	26.9	68.0	5.2	26.9	67.8
Numeracy	5.0	24.8	70.2	5.3	25.0	69.7

Source: NFED, 1998, Quality of Basic Literacy with Emphasis on Teaching Methods, Facilitator Training and Materials

The unit costs of training under the LFSP are estimated to have been about US\$29 per learner. This compares well with such countries as Bangladesh (\$38), Uganda (\$30), Senegal (\$173), and El Salvador (\$99).

Radio and income generation components have been introduced into the literacy programme in order to enhance and sustain the achievements of the adult literacy programme. The radio programme was started in 1996 to provide:

- information designed to help change the life-cycles of learners;
- complementary support for themes taught in the literacy primer;
- a forum for learners to discuss issues with other learners;
- a medium through which learners can practice their literacy skills; and
- news and information to learners and the general public.

Two local stations have been assisted to support the LFSP. However, the original agreement to devote 60 percent of the stations' broadcasting hours to the functional literacy programme has not been adhered to. Just 10 percent of programmes are on functional literacy. There is therefore need to re-train and encourage the stations to more effectively deliver literacy programmes. NFED is therefore training and encouraging the stations to link radio programmes more closely to the pattern of instruction in literacy classes (NFED, 1999).

The income generation component (IGC) of the LFSP started in May 1994. Attendance of literacy classes has been generally sustained by the IGC (NFED, 1998b). About 4,700 adults have benefited from the IGC through small loans that were disbursed on a group basis. The IGC was designed to meet the needs of adults who usually would not participate in literacy programmes without perceived direct benefits. The main objective of the IGC was to ensure that skills acquired from adult literacy programmes were functionally used by participants in their

small-scale business activities. Another objective was to increase the incomes of learners. In this regard, the IGC has the potential to promote employment generation in profitable activities such as Kente weaving and smock production.

Weaknesses and problems in the IGC that have been identified include:

- low coverage, with just 2 percent of participants in the functional literacy programme receiving support in 1998;
- the traditional nature of acquired skills. The mode of transfer was generally from already skilled group members to their colleagues. Most skills transferred were therefore traditional and not in modern methods of production required by the market; and
- levels of financial assistance that were inadequate to ensure significant improvement in livelihoods.

Some constraints impinge on sustaining the LFSP. Logistics have been less than satisfactory. Supplies of primers have often reached learners months later than required. Also, the delivery of literacy and numeracy skills has been mainly conducted through volunteer facilitators who have so far been sustained by their idealism, without much by way of material incentives. Material incentives of bicycles and sewing machines have been promised but have not always arrived. Sustaining the role of volunteer facilitators is therefore a challenge for the second phase of the LFSP. Similarly, problems of poor management skills, weak monitoring mechanisms and insufficient collaboration with stakeholders also require redress in the formulation of the second phase of the LFSP. All of these issues are being addressed in the design of the next phase of the NFLP.

Chapter 6: Training in essential skills

Various learning programmes that seek to empower people with knowledge and skills to improve or safeguard the quality of their lives are conducted by government, churches, NGOs and even private employers. This chapter focuses on two elements of this system: formal technical and vocational institutions, and the informal apprenticeship system. An example of another type of programme is outlined in Box 6.2.

6.1 Formal technical and vocational education and training

The provision of formal technical and vocational education is very limited in Ghana (Laryea Adjei and Brown Farhat, 1998)¹⁶. Furthermore, the outcomes are not impressive. About a third of those who attend technical and vocational institutions do not obtain any form of qualification (GSS, 1995 and MESW, 1998). Consequently, only 1.6 percent of the total educated labour force has some qualifications in vocational and technical education (GSS, 1995). Enhanced labour productivity and substantially increased real incomes has therefore not been realised. Indeed a large proportion of the labour force engaged in production has not been trained; about 30 percent have never been to school; and only 5 percent has received training at secondary or higher level (GSS, 1995).

The private sector comprising NGOs and the private for-profit institutions have played a pioneering role in the direct provision of formal technical and vocational training. Government also plays a direct as well as supportive role – operating schools and subsidising examinations for both public and private schools. Data on the number of institutions indicate the dominance of the private sector in service provision (reliable data on enrolment in private technical and vocational training institutions is not readily available). Of the 406 registered vocational and technical institutions, 38 percent are public and 62 percent private (see Table 6.1). In terms of equity, regions in the northern parts of Ghana again have significantly fewer of these facilities than the other parts of the country.

Table 6.1: Registered technical and vocational training institutes,¹⁷ 1994

Region	Total No. Institutions	Government		Private		Population (15+) per Institution
		No.	%	No.	%	
Ashanti	56	11	7.1	45	18.0	27,501
B. Ahafo	22	13	8.3	9	3.6	41,804
Central	62	22	14.1	40	16.0	12,823
Eastern	67	22	14.1	45	18.0	18,666
G. Accra	79	21	13.5	58	23.2	15,523
Northern	8	7	4.5	1	0.4	109,276
U. East	11	10	6.4	1	0.4	51,731
U. West	9	7	4.5	2	0.8	33,305
Volta	60	27	17.3	33	13.2	14,376
Western	32	16	10.3	16	6.4	26,414
Total	406	156		250	61.6	38.46

Source: NACVET(1994), GSS (1995b).

¹⁶ This document is the main source of information for this chapter.

¹⁷ The Association of Private Schools estimates the existence of about 700 unregistered schools.

Generally, achievements in technical and vocational schools are weak. Private for-profit institutions, including unregistered ones, are usually not well equipped or resourced and therefore offer low quality training. Public sector institutes, on the other hand, generally have more and better facilities and therefore provide better training. However, most Government run institutes are grossly under-funded and therefore provide sub-optimal levels of training. Schools run by leading NGOs with external support (such as the OIC, YMCA and YWCA) generally do best in terms of the quality of training (see Box 6.1).

Box 6.1: Vocational & Technical Training by the Opportunities Industrialisation Centre, Accra

The Opportunities Industrialisation Centre (OIC) runs four vocational centres for youth between 16 and 20 years of age at no fee. The duration of training is between 12 and 15 months. OIC places emphasis on job counselling and placement. Courses are adjusted to labour market requirements, especially of the informal sector. Due to this OIC is very successful in job placement of trainees, making OIC programmes very popular. The OIC initiative shows the importance of adapting training to labour market requirements and that effective pre-employment training can be completed in 15 months.

Source: World Bank (1995), Vocational Skills and Informal Sector Support Project Document

Among the deficiencies in the system are the following:

- the absence of standard curricula for both public and private institutions;
- absence of a national certification system;
- inflexibility in the design of programmes which inhibit quick adaptation to labour market demands;
- low investment in equipment and staff retraining; and
- an inadequate supply of consumable materials to enable students to practice and learn their crafts (Adu-Sarkodie, 1994).

Although the MOE's education reform programme lays emphasis on technical and vocational training, the budgetary allocation to this sub-sector continues to be low. Currently, the MOE provides only about 10 percent of the funds required for an acceptable standard of training in public schools. Students enrolled in private for-profit and NGOs do not receive any support in the form of grants or textbooks and are rarely included in distribution lists for equipment received gratis from donors.

Also, although the GES is empowered by law to register and supervise private vocational and technical institutions, many private institutions are unregistered and most are not supervised on a regular basis. The absence of standardised curricula in this sub-sector results in frequent departures from the standards of industry.

The MOE has well advanced plans to establish and operate Technical Resource Centres in all regions to service clusters of both public and private institutions). This programme will run with support from the Government of the Netherlands and will be centred in the country's polytechnics. In addition, a programme to assist private schools in curriculum development is currently under preparation.

A number of outstanding issues require resolution, however. These include how to reorient technical and vocational education and training programmes to increase the chances of their graduates securing gainful and remunerative employment including self-employment, which absorbs the majority of the Ghanaians labour force. This calls for the inclusion of courses on entrepreneurship, rather than academic training, in the technical and vocational curricula. Training in basic management is in particular, likely to offer opportunities for gainful self-employment.

A second issue is the attraction of adequate investment into technical and vocational training. In this regard, an investigation into how government can raise or redirect additional funding into technical and vocational training is required. Private institutions will also require cheaper sources of funds to expand and improve on achievements.

Thirdly, there is a critical need for strategies to attract girls to relatively higher income occupations to reduce gender gaps in the Ghanaian society are also required. Girls usually concentrate in relatively overcrowded and lower paying skill areas such as dressmaking and hairdressing¹⁸, occupations which on the average yield wages which are about 13 percent of those of the traditionally male-dominated skill areas (such as the manufacturing and construction)¹⁹.

6.2 Apprenticeship

Given the low availability of formal technical and vocational training opportunities, informal apprenticeship is the main mechanism for training of Ghanaian workers. The apprenticeship system, which has historically been an informal private sector activity, offers a large number of Ghanaians the opportunity to learn and acquire basic skills to earn a living. Many of the junior secondary school graduates who do not gain admission to senior secondary schools (about 65 percent of the total) acquire skills through the informal apprenticeship system. Oduro (1997) further estimates that about 65 percent of skilled workers in the manufacturing sector receive their training through apprenticeships and that employers largely regard the level of training received by apprentices as adequate. Only 24 percent of workers with apprenticeship training are for example, given further training on the job (Oduro, 1997).

Participation in apprenticeship training is largely determined by the gender of the entrepreneur. Male entrepreneurs tend not to train females. Similarly, women entrepreneurs tend not to train males. This practice tends to reinforce occupational segregation by gender. As in technical and vocational training, women traditionally concentrate in a few skill areas, which also pay lower wages. These are primarily the food and garments sectors in which female apprentices constitute 92 percent and 100 percent of the total numbers of apprentices, respectively (Oduro, 1997). Apprentices are most common in the garment and furniture sectors and least frequent in the food and textile sectors. In the garment sector, apprentices provide unpaid labour and the operating capital of their master or mistress through the fees

¹⁸ Female enrolments in public institutions continue to be concentrated in dressmaking and cookery at 96 percent and 99 percent of total enrolments, respectively, whilst their participation in the construction and woodworking trades remain low at 0 percent and 2.5 percent respectively (see NVTI, 1997). This is confirmed by World Bank (1998) which reveals young women in urban areas keen to pursue training in overcrowded trade areas such as dressmaking and hairdressing.

¹⁹ See for example, MESW, Labour Market Skills Newsletter, Vol. 1., 1998

they pay. They also contribute substantially toward payment for the greater part of the equipment their establishment requires to function.

Box 6.2: Reproductive health education and services for youth (RHESY)

The Reproductive health education and services for youth (RHESY) programme run by the Planned Parenthood Association of Ghana (PPAG). The RHESY addresses such issues as youth sexuality, HIV/AIDS and reproductive health issues. The programme targets both in and out of school youth and includes the disabled such as the deaf and the blind. In-school youth include those in JSS and SSS, as well as tertiary students and national service personnel. Out-of-school youth encompass apprentices, hawkers, seamstresses, tailors and school dropouts, etc. There is an even gender distribution among in-school youth that attend counselling sessions. However, among out-of-school youth more males (70%) than females (30%) attend. Most discussions are dominated by males however, despite of the encouragement given to females to be more active.

Various types of counselling sessions are organised countrywide. These include:

- lectures
- video/film shows
- individual counselling sessions
- home visits to youth with problems with parents or school authorities
- group discussion sessions
- symposia
- meetings for PTAs, opinion leaders, teachers, etc
- community cell groups
- drama performances
- radio discussions
- exhibitions

Most sessions are conducted at youth centres and clubs by staff, other resource persons and peer promoters. Resource persons include doctors, medical students, health workers and teachers. The peer promoters include youth who have been trained by PPAG. They receive training on sexuality, HIV/AIDS, STDs, reproductive health and counselling techniques. Orientation and training workshops are organised periodically for instructors to upgrade their knowledge and skills in their service provision.

The sessions have been able to dispel misconceptions that are held about STDs, HIV/AIDS and reproductive issues that are held by those youth who attend. Medical treatment is provided to those suffering from STDs and other minor ailments. Also, post-abortion care is provided when necessary. If necessary, referral services are provided. Counselling sessions have encouraged some out-of-school youth to re-enrol and complete their education.

On average, the cost of undergoing training in the apprenticeship system is about 46 percent lower than the total cost of training in the public vocational and technical institutions. Interviews with master craftsmen reveal that on prior agreement, monthly or even daily payments are acceptable, making it convenient for those who cannot afford to pay in bulk. This flexibility in the scheduling of payment makes apprenticeship training accessible to most income groups.

The utility of the apprenticeship system is demonstrated by its ability to absorb large numbers

of school dropouts, JSS graduates who do not gain admission into formal secondary education and currently some graduates of vocational schools who require additional practical training. This is facilitated by its method of payment, which tends to suit the poorer sections of society, especially those who depend on an irregular flow of income in the informal sector. Payment is by cash, in kind or both, and can be spread over an agreed period of time. Direct fees are also much lower than for formal technical and vocational training. There is also room for negotiating indirect costs, which vary according to the length of training and the period of "serving" the master trainers after completion.

Another advantage of the apprenticeship system is that it provides skills usually demanded by the market, minimising the risk of unemployment. In addition, the mode of skill transfer is simple: learning by watching the master craftsman. Also, apprentices have opportunities to acquire experience in practical areas such as product costing and negotiation.

A fifth benefit is the self-regulatory and self-financing nature of the apprenticeship system. The system operates without depending on support from government and external agencies, and therefore thrives even in periods of fiscal constraint.

A number of constraints however reduce the effectiveness of the apprenticeship system. Training provided is usually technologically obsolete, a reflection of the relatively low levels of investment, fees charged and the simple nature of skills acquired by master craftsmen in the past. Many craftsmen are therefore unable to cope with the rapid development of technology in manufacturing.

A second set of constraints relates to the abuses encountered by apprentices, which are a result of the absence of regulation. It is not unusual for training to be prolonged, as apprentices are a source of unpaid labour. Harsh conditions of training, such as the use of physical violence are also not uncommon.

Support of government and aid agencies to comprehensively retrain master craftsmen is therefore required. Some form of regulation for training, preferably through associations of craftsmen is further required. The MOE has recently initiated specific interventions to improve on the informal apprenticeship system (See Box 6. 3).

Box 6.3: Government initiatives in support of training for employment

The Vocational Skills and Informal Sector Support Project (VSP) of the MOE is aimed at shifting the focus of both public and private vocational and technical training institutions towards short, competency-based and demand-driven training for people wishing to acquire employable skills. The project recognises the high unit cost of training in formal training institutions both government and private and offers an alternative form of training at a lower cost. The courses stress theory and essential entrepreneurial skills to complement the practical skills taught through apprenticeship. This re-oriented training is expected to lead to an improvement in product quality and productivity in five chosen occupational skill areas. The specific components include:

- apprenticeship training
- training of master craftsmen
- support for public and private vocational and technical institutions
- provision of workplace tools at subsidised prices
- establishment of a labour market data base system
- tracer studies of VSP trainees and the graduates of the same trade areas in the formal VOTEC system.

The project aims to train 21,000 apprentices who have served for at least 18 months under a master craftsman and the masters themselves. The outcome of the VSP project is intended to influence the policy direction of training in future.

Over the two years that the project has been in place, 3000 apprentices have been trained as well as 700 master craftsmen. A tracer study has been undertaken comparing the outcomes for VSP trainees and graduates of VOTEC institutions. Findings include the following:

- Though there is a slightly higher proportion of VOTEC graduates on the job market and a higher proportion with their own tools, VSP graduates are more than twice as likely to be working and earning income in their trade areas;
- Whereas 44 percent of VSP trainees have set up their own businesses, only 20 percent of VOTEC graduates have their own;
- VOTEC graduates are more than twice as likely to be unemployed as VSP trainees are.

Sources: 1. Vocational Skills and Informal Sector Support Project document, Mid Term Review; 2. Batse, Z.K.M (1998).

Chapter 7: Conclusion

Growth in basic school enrolment in Ghana has been slow or stagnant since 1990. The vast majority of those not enrolled are the children of the poor and mostly female. Reasons for non-enrolment include the inability of poor parents to meet the direct costs such as school fees, educational materials and uniforms. The opportunity costs of children's school attendance in terms of household chores performed by girls or family income foregone from income-generating activities are also major contributory factors. Other factors include distances that must be travelled to schools. For girls, still other factors, some of which are culturally determined, may deny them access to school. Examples of these are customary such as caring for younger siblings and the collection of water and firewood. On another dimension the frequently poor quality of available educational facilities and services, and the questionable relevance of the curricula is a strong disincentive for the many parents to enrol their children in the public system.

Besides problems of costs and gender, and again on the qualitative front, other problems fundamental to the poor performance of the education sector in Ghana include the weak institutional capacity to administer and manage educational systems. This has very important implications for the ability of Ghana to rapidly progress from its present precarious state, develop its human resources and embark on a sustained path of economic growth and development and poverty reduction. The challenge for Ghana is to more seriously mobilise and allocate its resources to the task. This challenge is not an impossible one.

In its mission statement the MOE has pledged to provide relevant education to all Ghanaians at all levels, and to be guided by the principles of ensuring quality education, efficient management of resources and accountability and transparency in the delivery of educational services. The MOE is well aware of the problems and challenges that face the sector and has identified as medium-term (1999-2001) priorities the need to address:

- a) low enrolment growth at all levels
- b) inadequate investment in infrastructure and service development
- c) the absence of community participation, particularly in the management of basic schools
- d) low quality education
- e) inadequate numbers of students with appropriate skills, particularly in science and vocational studies, for the workplace.

The challenges of increasing access and improving the quality of education and performance by students clearly deserve the very high priority that the MOE has attached to these issues. The current gross (and presumably net) enrolment ratios are unacceptably low, especially for a country that invests as heavily as in education as Ghana does. To be sure, some of the determinants of low participation may be beyond the control of the MOE but many such as enhancing the sense of ownership of schools by parents and communities can be influenced by policy. Also, improving equity, especially in terms of gender, in access to and participation in basic education continues to deserve very high priority. Efforts in this direction require the promotion of wider coverage of basic education services and infrastructure and measures to attract girls as well as the poor generally into schools. The current resource constraints, especially in administrative and planning capacity, underscore the need for the MOE to continue to build its capacity to analyse and find practical, cost-effective and sustainable solutions to the challenges that are posed by these problems.

Another issue the MOE should address is that of early childhood care and education programmes. At present this sub-sector is poorly managed and supervised. It is imperative that Government recognises the importance and advantages the sub-sector brings to the education sector as a whole and to national development as well. The ECD sector should be better integrated with basic education and linked to other levels of education.

Yet another area that deserves the closer attention of the MOE is that of technical and vocational education. At present the private sector, including both NGOs and for-profit institutions, is playing a very active role and should encouraged to continue and intensify their efforts. However, **MOE should further strengthen the framework for regulation, monitoring and supervision of all training institutions to enhance the quality of their products and improve upon the skills and productivity of the Ghanaian worker.** In this regard, the MOE should hasten the establishment of standard curricula for training institutions and of a national certification system. **Policies that encourage greater private sector investment in training are also urgently required.** Another useful step would be to strengthen the linkages between the training sector and industry.

Finally, but not least, the commendable efforts that have been made to develop adult literacy need to be sustained and further developed and expanded. The forthcoming next phase of the NFLP should make a substantial contribution to addressing the learning needs of various categories of adult learners. These efforts should be complemented by measures to reinforce the concept that learning is not only for children, but for all ages.

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Appendix 1: EFA core indicators

Table A1: Core EFA Indicators

<i>Indicator 1:</i>	<i>Gross enrolment in early childhood development programmes, including public, private, and community programmes, expressed as a percentage of the official age-group concerned, if any, otherwise the age-group 3 to 5.</i>
<i>Indicator 2:</i>	<i>Percentage of new entrants to primary grade 1 who have attended some form of organised early childhood development programme.</i>
<i>Indicator 3:</i>	<i>Apparent (gross) intake rate: new entrants in primary grade 1 as a percentage of the population of official entry age.</i>
<i>Indicator 4:</i>	<i>Net intake rate: new entrants to primary grade 1 who are of the official primary school-entrance age as a percentage of the corresponding population.</i>
<i>Indicator 5:</i>	<i>Gross enrolment ratio.</i>
<i>Indicator 6:</i>	<i>Net enrolment ratio.</i>
<i>Indicator 7:</i>	<i>Public current expenditure on primary education a) as a percentage of GNP; and b) per pupil, as a percentage of GNP per capita.</i>
<i>Indicator 8:</i>	<i>Public expenditure on primary education as a percentage of total public expenditure on education.</i>
<i>Indicator 9:</i>	<i>Percentage of primary school teachers having the required academic qualifications.</i>
<i>Indicator 10:</i>	<i>Percentage of primary school teachers who are certified to teach according to national standards.</i>
<i>Indicator 11:</i>	<i>Pupil-teacher ratio.</i>
<i>Indicator 12:</i>	<i>Repetition rates by grade.</i>
<i>Indicator 13:</i>	<i>Survival rate to grade 5 (percentage of a pupil cohort actually reaching grade 5).</i>
<i>Indicator 14:</i>	<i>Coefficient of efficiency (ideal number of pupil years needed for a cohort to complete the primary cycle, expressed as a percentage of the actual number of pupil-years).</i>
<i>Indicator 15:</i>	<i>Percentage of pupils having reached at least grade 4 of primary schooling who master a set of nationally defined basic learning competencies.</i>
<i>Indicator 16:</i>	<i>Literacy rate of 15-24 year olds.</i>
<i>Indicator 17:</i>	<i>Adult literacy rate: percentage of the population aged 15+ that is literate.</i>
<i>Indicator 18:</i>	<i>Literacy Gender Parity Index: ratio of female to male literacy rates.</i>

Source: Education for All. The Year 2000 Assessment. Technical Guidelines, p.7.

Appendix 2: Assumptions for school-age population and enrolment projections

With exception of the years that are asterisked (see Table 3.1) all figures are actual. Asterisked numbers are projections. Projections have been calculated by the MOE up to the 2005/6 academic year. However, the Assessment only uses projections up to the 1999/200 academic year. The assumptions for the projections are as follows:

School-age population

The 1984 population of Ghana was first adjusted for age-reporting errors and under-enumeration at young ages and then projected under the following assumptions:

1. The level of mortality which was estimated as between level 13 and 14 around 1980-1985 was taken as level 14 between 1985-1990 with an improvement of one level per 5 years. The North Model life tables were accepted as applicable.
2. The 1988 GDHS level of fertility which was represented by the total fertility rate (TFR) of 6.4 was accepted but the age pattern of fertility was found to be affected by age shifting by females resulting in a large value of 29.8 for the mean (m) age of the fertility schedule. Since the age distribution of the population had been adjusted, it was necessary to adjust the age specific fertility (ASFR) pattern as well. In the absence of needed information, the synthetic fertility schedule given by Coale-Demeny for m=28 was utilised to distribute the births among the ages 15-49. Sex ratio at birth was taken as 103 males per 100 females.

Under the high variant it was assumed that fertility would remain constant for the projection period mainly because of the ineffectiveness of modern methods of fertility control in Ghana as an alternative to traditional methods. It is anticipated, however, that because of the large cohort of women who had been exposed to education in the 1960s and early 1970s entering into the reproductive ages, there could be decreases in fertility. So, under the low variant it is taken that the TFR will be 6.3 during 1985-1990, 6.1 during 1990-1995 and 5.9 for the 1995-2000 period.

The medium variant assumed that the TFR of 6.4 in the 1985-1990 period would decline to 6.3 during 1990-1995 and further to 6.1 in the 1995-2000 period (Table A2.1).

Table A2.1: Mortality and Fertility Indices, 1985-2000

Period	Mortality Indices			Fertility Indices		
	Life Table	Life Expectancy		High Variant	Medium Variant	Low Variant
		M	F			
1985-1990	14	49.6	52.5	6.4	6.4	6.3
1990-1995	15	51.8	55.0	6.4	6.3	6.1
1995-2000	16	54.1	57.5	6.4	6.1	5.9

Population projection was made based on figures of 1984 census with the following assumptions:

1. Population growth rate from 1984 to the year 2000 is 2.6%;
2. Population growth rate from the year 2000 to 2005 is 3.0%.

Enrolment and gross enrolment ratios for primary and junior secondary schools

1. Gross enrolment ratio for primary schools is expected to increase uniformly from 76.5 in 1996/97 academic year to 85.0 in 2005/6 academic year;
2. Gross enrolment ratio for junior secondary schools is expected to increase uniformly from 58.6 in 1996/97 academic year to 70.0 in 2005/6 academic year;
3. Projected enrolment from 1997/98 to 2005/6 for primary and junior secondary schools were obtained by applying the projected gross enrolment ratios on the projected school-age population;
4. The separate public and private projected enrolment for primary and junior secondary schools from 1997/98 to 2005/6 were obtained by assuming a constant proportion of 86.9% for public for primary schools and 94.2% for public junior secondary schools taken from the 1996/97 figure.

Girls enrolment in primary and junior secondary schools

1. Percentage share of girls enrolment in primary schools is expected to increase uniformly from 46.6% in 1996/97 academic year to 50.0% in 2005/6 academic year;
2. Percentage share of girls enrolment in junior secondary schools is expected to increase uniformly from 43.9% in 1996/97 academic year to 48.0% in 2005/6 academic year;
3. The separate public and private projected girls enrolment for primary and junior secondary schools from 1997/98 to 2005/6 were obtained by assuming a constant proportion of 86.3% for public for primary schools and 93.6% for public junior secondary schools taken from the 1996/97 figure.

Appendix 3: Selected indicators

Table A3.1: National and regional primary school gross enrolment ratios											
Year	Ghana	Ashanti	B-Ahafo	Central	Eastern	G. Accra	Northern	U. East	U. West	Volta	Western
1986	77.3	91.6	77.5	93.7	98.9	74.9	34.2	32.2	36.1	95.6	81.4
1990	79.3	89.2	80.3	91.8	87.9	86.2	51.5	43.1	50.6	85.9	84.8
1991	79	89.9	77.2	88.6	84.5	89.9	52.2	42.7	48.6	89.1	84.5
1992	77.6	88.2	76.7	85.7	81.6	86.5	51.3	46.1	53.7	90.6	79.9
1993	78.1	88.9	78.4	87	82.2	81.6	50.5	50.3	55.6	92.2	83
1994	75.9	85.1	72.6	87.5	80.2	83.2	43.6	50.7	55.4	90.9	81.5
1995	74.6	83.7	71.1	88.3	79.4	78.9	43.8	51.1	53.9	89.1	80.7
1996	76.5	89.6	74.2	92	79.8	81.2	48.2	51.1	52.8	88.5	81.6

Source: Calculated from annual series of education statistics published by Statistics Unit, SRIMPRD, MOE.

Table A3.2: Gross enrolment ratios (GER) in Junior secondary schools in northern Ghana				
Year	Ghana	Northern Region	Upper East Region	Upper West Region
1990	54.5	20.9	17.5	29.3
1991	56.2	25.5	20	29.8
1992	58.2	26	21.3	32.1
1993	59.2	29.1	23.4	35.7
1994	58.7	27.6	25	37.8
1995	58.9	29.4	27.4	39.3
1996	58.6	30	29.2	38.9

Source: Annual series of education statistics published by Statistics Unit, SRIMPRD, MOE.

Table A3.3: National and regional primary school intake rates											
Year	Ghana	Ashanti	B-Ahafo	Central	Eastern	G. Accra	Northern	Upper East	Upper West	Volta	Western
1986	88.6	102.2	93.6	106.1	110.1	73.5	49.1	45.2	50	107.4	97.3
1990	93.5	100.5	93.8	103.8	98.9	85.3	82.2	73	74.3	99.5	100
1991	89.4	100.1	84.7	100.7	94	89.2	74.3	67	65.4	98.1	95.5
1992	85.5	96.2	82.8	89.9	89	83.3	67.1	67.9	70.4	98.5	87.5
1993	85.4	92.7	85.4	91.8	90.3	77.4	61.2	71.4	71.1	99.1	91.9
1994	80.8	89.1	78	92.7	86.6	73.6	49.8	69.1	71.7	96.5	88.7
1995	79.2	87.2	76.7	92.9	85.4	69.5	50.8	69.7	67.6	94.9	86.3
1996	84.8	92.1	86.5	97.8	87.1	72.5	67.5	73.5	73.5	97.5	90.1

Source: Annual series of education statistics published by Statistics Unit, SRIMPRD, MOE.

		Table A3.4: Gross primary school intake rates by gender							
		1986	1990	1991	1992	1993	1994	1995	1996
Ghana	Total	88.6	93.5	89.4	85.5	85.4	80.8	79.2	84.8
	Male	95.6	99.3	93.9	89.8	89.8	84.6	82.9	88.7
	Female	81.6	87.6	84.7	81.2	81.1	76.9	75.4	80.9
Ashanti	Total	102.2	100.5	100.1	96.2	92.7	89.1	87.2	92.1
	Male	107.6	103.7	103.1	98.7	95.2	91.8	89.9	94.9
	Female	96.8	97.3	97.2	93.7	90.2	86.5	84.6	89.4
B-Ahafo	Total	93.6	93.8	84.7	82.8	85.4	78	76.7	86.5
	Male	95.7	94.8	85.5	84.4	86.1	78.9	78	87.8
	Female	91.5	92.7	83.7	81.1	84.6	77	75.3	85
Central	Total	106.1	103.8	100.7	89.9	91.8	92.7	92.9	97.8
	Male	114.1	108	104.6	92.5	94.7	95.4	95.2	99.2
	Female	98	99.6	96.7	87.3	88.9	89.9	90.5	96.3
Eastern	Total	110.1	98.9	94	89	90.3	86.6	85.4	87.1
	Male	115.5	101.2	95.6	90.6	92.4	87.8	86.7	87.8
	Female	104.6	96.6	92.3	87.4	88.1	85.2	84.1	86.4
G. Accra	Total	73.5	85.3	89.2	83.3	77.4	73.6	69.5	72.5
	Male	76.7	87.8	93.1	86.2	80.5	76.2	72.7	75.8
	Female	70.5	83	85.5	80.5	74.5	71.2	66.6	69.4
Northern	Total	49.1	82.2	74.3	67.1	61.2	49.8	50.8	67.5
	Male	63.6	102.3	90	80.9	72.6	59.6	61.3	81.2
	Female	34.6	62	58.6	53.3	49.9	40.1	40.3	54
U. East	Total	45.2	73	67	67.9	71.4	69.1	69.7	73.5
	Male	56.6	89	80.6	79.8	82.2	80	80.4	83.7
	Female	34.3	57.8	54	56.5	61.1	58.6	59.5	63.8
U. West	Total	50	74.3	65.4	70.4	71.1	71.7	67.6	73.5
	Male	61.3	86.6	73.9	80.2	80.8	81.1	74.9	81.9
	Female	39.4	62.7	57.3	61	61.9	62.7	60.7	65.6
Volta	Total	107.4	99.5	98.1	98.5	99.1	96.5	94.9	97.5
	Male	117.9	104.9	101.2	102.3	102.9	100.3	98.5	99.5
	Female	97.1	94.2	95	94.7	95.3	92.8	91.4	95.6
Western	Total	97.3	100	95.5	87.5	91.9	88.7	86.3	90.1
	Male	100.9	102.7	96.5	88.5	93.7	90.4	87.6	91.3
	Female	93.5	97.2	94.4	86.6	88.8	87	85	88.9

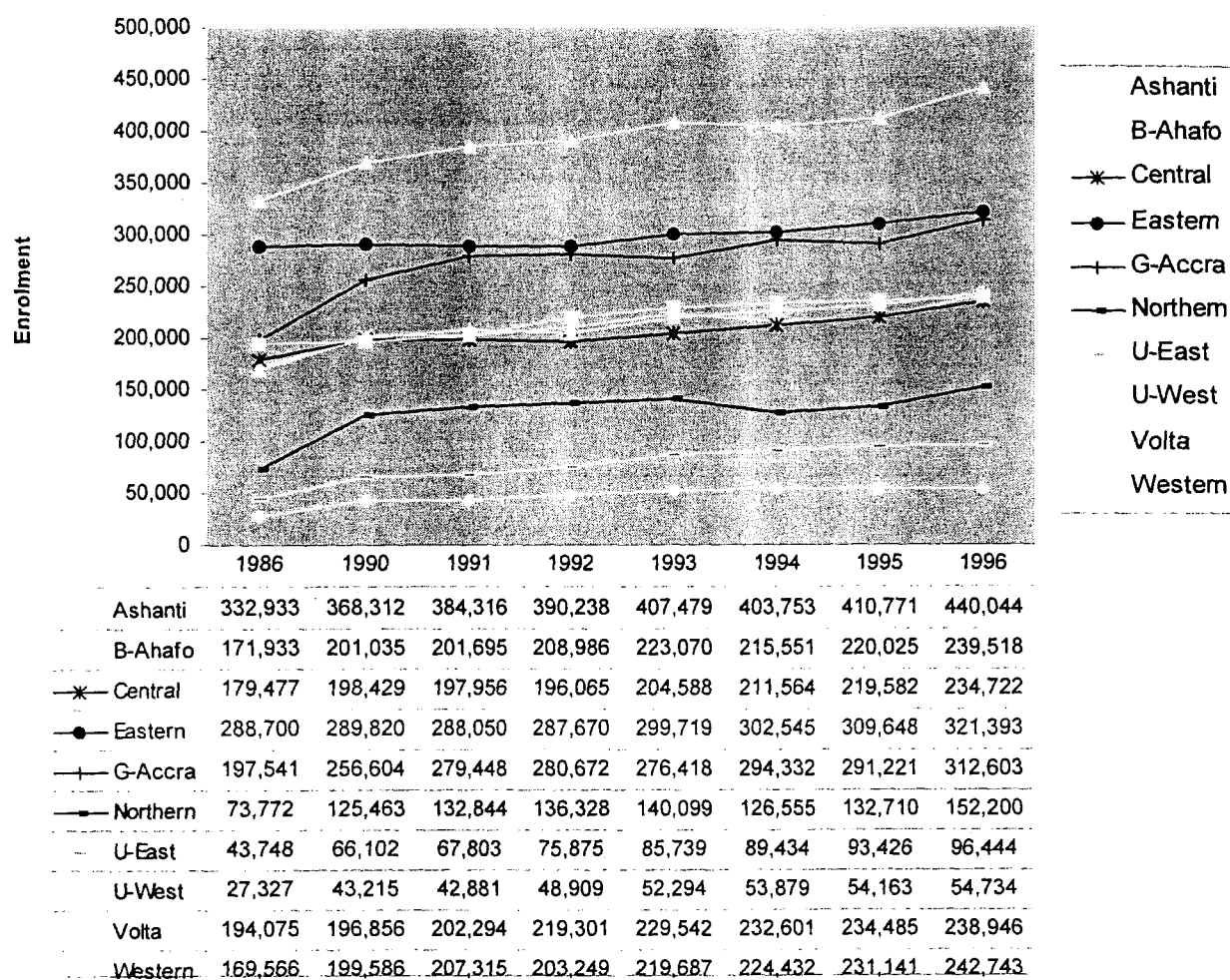
Source: Annual series of education statistics published by Statistics Unit, SRIMPRD, MOE.

Table A3.5: Number of primary school teachers by region and gender

		1990	1991	1992	1993	1994	1995	1996
Ghana	Total	67,446	72,451	67,760	69,232	71,863	67,021	71,340
	Male	43,510	46,891	43,690	45,057	47,135	42,258	45,684
	Female	23,936	25,560	24,070	24,175	24,728	24,763	25,656
Ashanti	Total	12,199	13,053	12,342	12,699	12,986	12,601	13,732
	Male	7,485	7,850	7,619	7,944	8,284	7,797	8,574
	Female	4,714	5,203	4,723	4,755	4,702	4,804	5,158
B-Ahafo	Total	7,779	8,403	7,804	8,174	8,163	7,939	8,240
	Male	5,704	6,304	5,819	6,112	6,257	6,067	6,398
	Female	2,075	2,099	1,985	2,062	1,906	1,872	1,842
Central	Total	6392	6,812	6,286	6,520	6,788	6,187	6,930
	Male	4,235	4,514	4,089	4,287	4,442	3,805	4,296
	Female	2157	2,298	2,197	2,233	2,346	2,382	2,634
Eastern	Total	11,234	11,900	10,798	11,052	11,602	10,905	11,268
	Male	7,236	7,811	7,023	7,310	7,594	6,901	7,132
	Female	3,998	4,089	3,775	3,742	4,008	4,004	4,163
G. Accra	Total	6,732	7,547	7,355	7,139	8,529	7,507	7,968
	Male	2,885	3,263	3,312	3,143	3,991	2,951	3,370
	Female	3,847	4,284	4,043	3,996	4,538	4,556	4,598
Northern	Total	4,714	5,569	4,913	4,853	4,441	3,824	4,394
	Male	3,337	4,086	3,645	3,649	3,360	2,742	3,299
	Female	1,377	1,483	1,268	1,204	1,081	1,082	1,095
U. East	Total	2,002	2,165	1,994	2,158	2,106	2,031	2,187
	Male	1,269	1,391	1,200	1,374	1,360	1,275	1,423
	Female	733	774	794	784	746	756	764
U. West	Total	1,329	1,552	1,504	1,582	1,581	1,499	1,523
	Male	828	997	906	1,001	1,013	932	951
	Female	501	555	598	581	568	567	572
Volta	Total	7,827	7,868	7,545	7,575	7,970	7,487	7,880
	Male	5,422	5,242	4,986	5,020	5,370	4,898	5,204
	Female	2,405	2,626	2,559	2,555	2,600	2,589	2,676
Western	Total	7,238	7,582	7,219	7,480	7,697	7,041	7,218
	Male	5,109	5,433	5,091	5,217	5,464	4,890	5,037
	Female	2,129	2,149	2,128	2,263	2,233	2,151	2,181

Source: Annual series of education statistics published by Statistics Unit, SRIMPRD, MOE.

Figure A3.1: Regional primary school enrolments



Source: Statistics Unit, SRIMPRD, MOE