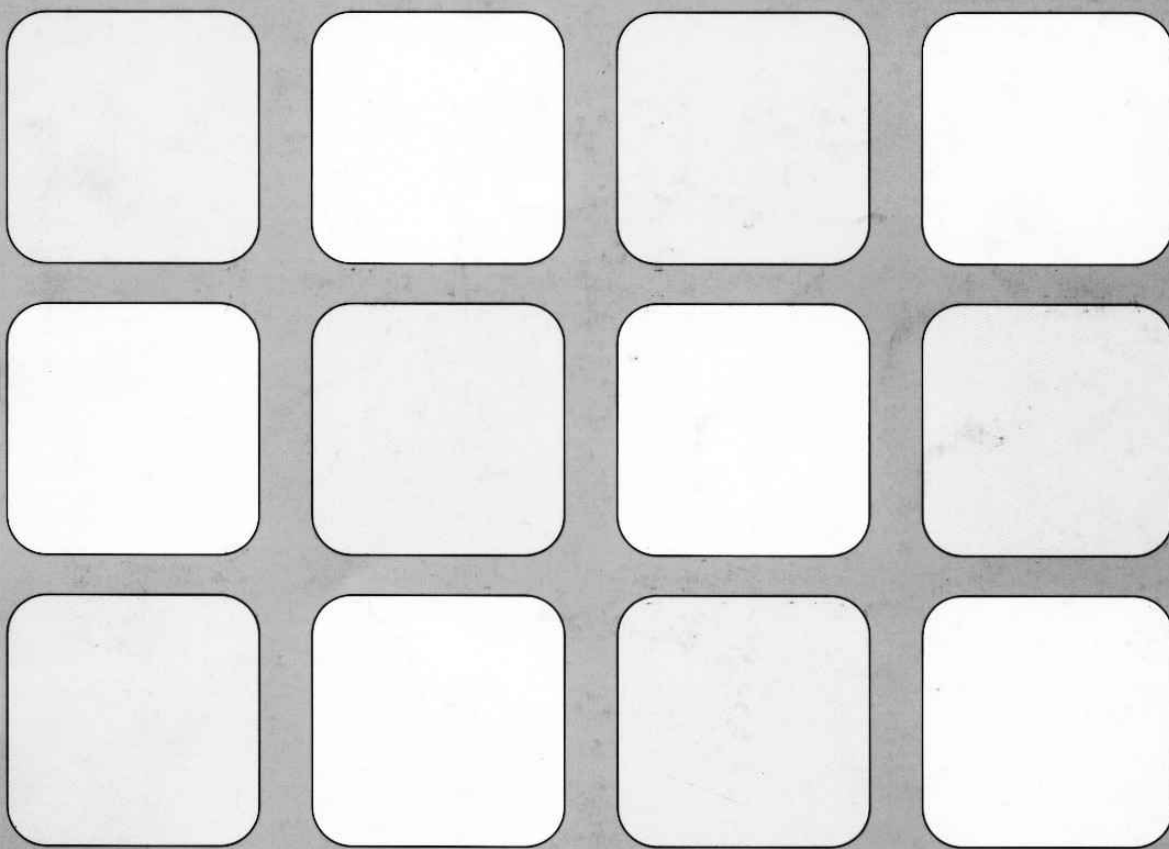


Financing Primary Education for All:

BOTSWANA



Lisenda Lisenda

Botswana Institute of Development Policy
Analysis

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**Financing Primary Education For All:
Public expenditure and education outcomes in Botswana**

Lisenda Lisenda

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Preface

The international development target of achieving primary Education for All (EFA) by 2015, which has recently been reaffirmed, contrasts sharply with experience in sub-Saharan Africa (SSA), where education enrolments and quality in about half of the countries in the region have deteriorated since 1990. It appears that, in some cases, this has been caused by underspending by governments on primary schooling, but in others, the unit costs of schooling are high, and reforms to change cost structures are required to make EFA affordable.

Education coverage in SSA is not only partial, but also its quality is highly variable from place to place. Even where all, or most, children are enrolled, levels of repetition, completion and student achievement appear to vary enormously between countries. The development targets are articulate about quantity, but rather less so about school quality, notwithstanding the importance attributed to this by the Jomtien and Dakar discussions, and by governments and donors alike. This is partly because it is easier to measure school inputs than outputs. There is little agreement about how quality variables can best be proxied as targets for policy. Even the relationships between public spending and the quantitative performance of school systems are not yet completely clear. Some countries which allocate lower than the regional average proportion of gross domestic product (GDP) to primary schooling achieve high enrolments; in others, the opposite seems to hold.

This report presents the Botswana findings from a research project aiming to explore the relationship between public education spending and education outcomes at the primary level in developing countries. The overall project has explored this relationship from a cross-country perspective before concentrating on three African countries – Botswana, Malawi and Uganda. The case studies provide important insights into how primary school expansion has been achieved from a financing perspective and practical lessons for other African countries attempting to achieve EFA. Other country case studies and a synthesis report are also available.

The project could not have been undertaken without the generous financial support of the Education Department, Department for International Development (DFID). Steve Arthur, Manisha Prajapati and Rod Tyrer at DFID head office in London provided excellent administrative and professional back-up. However, the views expressed in this report are entirely those of the author and do not necessarily represent DFID's own policies or views.

Abbreviations

| | |
|-------|---|
| AGG | Absolute Gender Gap |
| ARDP | Accelerated Rural Development Programme |
| AT | Assistant Teacher |
| BDP | Botswana Democratic Party |
| BIDPA | Botswana Institute of Development Policy Analysis |
| BNF | Botswana National Front |
| BPP | Botswana People's Party |
| CDE | Curriculum Development and Evaluation |
| CJSS | Community Junior Secondary School |
| COSC | Cambridge Overseas School Certificate |
| CSO | Central Statistics Office |
| DBA | Division of Budget Administration |
| DDC | District Development Committee |
| DDP | District Development Plan |
| Dipl. | Diploma in Primary Education |
| DPSM | Directorate of Public Service Management |
| DVET | Department of Vocational and Technical Education |
| ECC | Economic Committee of Cabinet |
| EFA | Education For All |
| ERTD | Examinations, Research and Testing Division |
| FAP | Financial Assistance Policy |
| GER | Gross Enrolment Rate/Ratio |
| HIES | Household Income and Expenditure Survey |
| HOD | Head of Department |
| JC | Junior Certificate |
| JSEIP | Junior Secondary Education Improvement Project |
| MFDP | Ministry of Finance and Development Planning |
| MLG | Ministry of Local Government |
| MoE | Ministry of Education |
| NCE | National Commission on Education |
| NDP | National Development Plan |
| NEMIC | National Employment, Manpower and Incomes Council |
| NER | Net Enrolment Rate/Ratio |
| NPE | National Policy on Education |
| PEIP | Primary Education Improvement Project |
| PH | Primary High |

| | |
|-------|--|
| PL | Primary Low |
| PS | Permanent Secretary |
| PSLE | Primary School Leaving Examination |
| PTC | Primary Teaching Certificate |
| PTF | Planning Task Force |
| RAD | Remote Area Dweller |
| RGG | Relative Gender Gap |
| RNPE | Revised National Policy on Education |
| SIDA | Swedish International Development Agency |
| SKIP | Sectoral Keynote Issues Paper |
| SSA | Sub-Saharan Africa |
| TS | Tirelo Sechaba |
| TSM | Teaching Service Management |
| TTD | Teacher Training and Development |
| UPE | Universal Primary Education |
| USAID | United States Agency for International Development |

Executive summary

This report reviews universal primary education (UPE) reforms in Botswana since 1977, from both the policy and financial perspectives, with a view to drawing lessons that can be of benefit to other developing countries that are in the process of implementing UPE or intend doing so. The report is structured around its broad objectives, which are:

- To describe education policy reform in the country and explore the country-specific context in which reform and particular aspects of reform were introduced
- To review how UPE has been achieved from a financing perspective and what implications the achievement of universal access has had on primary education outcomes
- An assessment of the effectiveness of the budgetary system to allocate resources efficiently (e.g., can improvements in the budgetary process lead to better outcomes, or are additional resources required?).

The data used were collected in the form of documents and statistics and from a large number of interviews at both central and local government levels. At the central government level, the head offices of all the relevant line ministries, heads of departments or their deputies and relevant officials were consulted. At the local government level, three small case studies were conducted in three district councils, two of them in disadvantaged areas. The visits and interviews were intended to supplement the more comprehensive data gathered from official sources. Data collected from official documents were used to measure quantitative expansion in education, as well as regional differences in participation in education, teacher–pupil ratios, and classroom–pupil ratios, availability of primary school facilities, and costs and financing.

Education policy reform

It is evident from the analysis that UPE has been a long-held goal in Botswana. However, the prevailing lack of financial resources before UPE was introduced in 1980, and the post-independence manpower needs, called for scarce resources to be used for expanding secondary education at the expense of primary education. Nevertheless, given the late start in 1980, significant progress has been made, due mainly to increased public demand for primary education, and the economic and political motives of government.

On the political front, the evidence suggests that all major political parties were committed to the early introduction of UPE but resources did not permit it. It was only with the country's improved financial position and increased donor assistance that eventually the ruling party introduced UPE. The goals for UPE in Botswana were pursued in the overall context of the country's philosophical direction, set out by the national principles of achieving unity, democracy, development and self-reliance, within the all-embracing goal of achieving social justice. The national philosophy of social justice was adopted by the first National Policy for Education (NPE), which recommended UPE on the basis that for the country to

achieve equitable human development all school-age children should have equal access to primary education.

At the more practical level, implementation of UPE was first covered by the National Development Plan (NDP) 5, and consequently prioritised through successive national development plans. Reforms undertaken in advance of the introduction of UPE occurred between 1973 and 1978, and involved the reduction of school fees by half in 1973 and the massive building of primary schools from 1973 to 1978. However, given that there was no mention of UPE from the ruling party, education reforms were motivated by politics rather than a genuine commitment to introduce UPE during the period. The introduction of UPE came about with the adoption of the recommendation of the first National Commission on Education (NCE) report of 1977. Following the introduction of UPE in 1980 more efforts were elaborated in subsequent plans to provide adequate primary school facilities to accommodate the impact of the policy. To improve on the quality of teaching, existing teacher training colleges underwent expansion. However, despite the budgetary provisions that prioritised the achievement of UPE, the goal remained elusive until recently. Though the latest education statistics suggest that UPE has almost been achieved, they have to be read with caution, as previous studies have found that data inconsistencies exist between the education statistics and national population figures.

Immediately after the introduction of UPE, the government, in partnership with the United States Agency for International Development (USAID), launched the Primary Education Improvement Project (PEIP) at the University of Botswana. The project was meant to improve primary education quality by upgrading the professional qualifications of teachers and administrators. However, the project is reported to have had a limited impact, as it enrolled fewer teachers per year. The other reform related to improving primary school teaching was the introduction of a national service that placed senior secondary school completers as untrained teachers in primary schools for a year. However, opinions from interviews are that the introduction of UPE had led to high enrolments and low quality education.

The provision of primary school facilities has lagged behind and remains a problem to date. Some policy-makers and administrators, while acknowledging that UPE was still a priority, had misgivings about the priority of the government that, at the introduction of UPE, was pursuing a manpower planning strategy that pre-assigned graduate manpower from the university to the central government, at the expense of the understaffed local authorities. This is found to have impacted negatively on the provision of primary school facilities across the country.

On access and participation

The overall pattern suggests that the primary education system achieved gradual quantitative expansion both before and after the introduction of UPE. However, the halving of school fees in 1973 had a profound impact on enrolment expansion, as Standard 1 enrolment increased by 60 per cent and overall enrolment by 16 per cent during that year. The introduction of UPE in 1980 resulted in an expansion in enrolment, although not as great as in 1973, and as a result gross enrolment rates (GERs) and net enrolment rates (NERs) before and after UPE were high and increasing, thus suggesting improvement in

access and participation. However UPE, as defined in Botswana, remains to be achieved. As other countries define the progress towards or attainment of UPE by taking into account the GER measure, in Botswana the NER is expected to be 100 per cent before UPE can be pronounced as a goal that has been achieved.

But generally education indicators improved with the introduction of UPE. Expansion in enrolment was accompanied by more teachers recruited into the system. This resulted in the pupil-teacher ratios that were high before UPE declining to lower levels, thus highlighting improvements in school teaching conditions over the years. The drop-out rate was low and fluctuating after UPE, reflecting high retention within primary schools. The repetition rates were low before UPE and tended to increase slowly after UPE, which reflected a slight deterioration in the efficiency of the primary school system, but they remained less than 10 per cent. Overall, low drop-out and repetition rates resulted in high but stagnant survival rates during the drive towards UPE, suggesting that improvement in qualitative measures did not result in changes in education outcomes. The fluctuation in the drop-out rate and repetition rate tended to delay the achievement of UPE, as defined in Botswana.

Since Botswana strives for an NER of 100 per cent, the effects of repetition and drop-outs on the NER cannot be ignored. In addition, for the country to achieve its stated goal of having all school-age children in schools it will have to improve retention in the primary school system. Many countries have compulsory education policies, but such a policy had not been considered because of the fear that the government would not be able to provide enough places (NPE 1977). However, the study found that even in certain districts such as the North East, where provision of facilities is adequate, drop-out rates are high because some parents and communities still do not value education because of cultural and religious beliefs. Perhaps a selective compulsory education policy is required at this time to ensure that those who enter Standard 1 stay to complete Standard 7. This measure would not incur additional costs in teacher salaries or in facilities. A compulsory education policy is also justified on equity grounds. Many of the children who drop out come from areas with a population of low educational levels, where parental support may be weak as the value of education is not well perceived. If the high drop-out rates prevail in those communities, the disparities would widen since primary education is the first stage to other levels of education.

The quality of teachers, measured by their academic and professional qualifications, was low and declining before UPE and started to improve slowly after it. The other qualitative indicator analysed was the pupil-classroom ratio, which, in spite of problems in providing primary school facilities, declined from its high levels before UPE. However, efficiency of the primary school system, though improving, remained low, due mainly to high drop-out and repetition rates during the period. In the 1980s limited places in secondary schools meant only a few pupils who passed their Standard 7 examinations could be admitted. As a result many of those who were employed as teachers had not been through secondary schools. This reinforced the cycle of low-quality teaching in the system. The falling pupil-teacher and pupil-classroom ratios, although suggesting improvement in school conditions, may not have had an impact in improving learning outcomes because of low-quality teaching. A study commissioned by the

NCE in 1993 found that the performance of primary school leavers had been declining over the years. This shows that, despite efforts to improve primary school qualitative measures such as the pupil-teacher ratio and the academic profile of untrained teachers since the introduction of UPE, the general quality of primary education did not improve. This suggests the need to redouble efforts to improve the quality of primary school teaching.

Education finance and UPE

Since the 1970s, education was among the top three sectors that were allocated the largest share of government expenditure, and in recent years it has become the single sector receiving the largest share of government expenditure. This highlights that education is a top priority of the government. This is reflected in the large and increasing share of total expenditure and gross domestic product (GDP) allocated to the sector since the adoption of the first NPE.

Although primary education expenditure as a share of total education budget and GDP tended to decline over the years, it remained the sector allocated the largest share of the education budget. This suggests that primary education was among the top priorities of the government over the years even though in the early 1980s the government's priorities shifted temporarily towards the expansion of secondary education.

The high allocation of budget to primary education following the introduction of free education in 1980 made education accessible to many school-age children, as massive expansions were achieved. However, despite the quantitative expansions, accompanied by improvements in internal efficiency, the education outcomes (measured by survival rates) remained stagnant. This suggests that increased public expenditure towards primary education resulted in more children in schools but did not have an impact on education quality or outcomes. This is partly reflected by teachers' academic qualifications remaining low, with little change since the introduction of UPE.

Furthermore, we find that the achievement came at a cost, as expenditure per pupil at primary level increased in recent years compared to expenditure at secondary schools. However, the allocations across education levels have become more egalitarian. It is also clear that the success recorded in the education sector over the years could not have been achieved without the assistance of the donor community. Since the introduction of UPE the donor community have contributed heavily towards the development budget. The government pay for the entire recurrent budget, of which a large share went towards paying teachers' salaries. However, teachers' starting salaries in real terms have declined at annual rates that ranged from 0.7 per cent to 2.3 per cent between 1978 and 2000, thus declining to below their 1978 level in 2000. The starting salary differential between an assistant teacher at primary level on B3 scale and a head teacher on C1 scale had consistently remained around 1:3. On the other hand, the gap between the starting salaries of the same assistant teacher and a permanent secretary has been increasing from as low as 1:5 in 1978 to 1:13 in 2000, showing that teachers' salaries have not been adjusted at the same rate as those of permanent secretaries during this period.

Equity issues and UPE

Botswana is a country in which high economic growth persists alongside high levels of income inequality. The poorest households are larger and with more school-age children than the richest households who have fewer children. As a consequence, the increased share of the education budget allocated to primary education since the introduction of UPE led to a massive enrolment of children from poor family backgrounds. Using the 1993–4 Household Income and Expenditure Survey (HIES) data we found that the education subsidies were pro-poor on a per capita basis. The poorest 20 per cent appropriated 27 per cent of the total primary subsidy, compared to about 9 per cent for the richest 20 per cent. This suggests that the education subsidy is negatively correlated to household per capita consumption, and positively correlated to the number of school-age pupils in each household. However, the analysis of the 1993–94 HIES data reveals that the majority of those not attending school still came from the poorest 20 per cent of households, and more especially from rural areas. In urban areas and urban-villages the enrolment rates among the poorest 20 per cent are higher than in rural areas, but remained low compared to those for higher income groups. This suggests that reducing poverty levels in these areas is an important factor to ensure increased school enrolments.

At district level, we find that the largest districts (Central, Kweneng and Southern), which rank among the poorest in terms of the number of poor people, have consistently had the largest population of primary-age pupils enrolled in schools. These districts have tended to attract the largest share of primary recurrent budget allocated to local authorities. For all districts, pupil per recurrent expenditure tended to increase over the years but varied across districts, tending to be lower among the three largest districts with a large number of pupils enrolled in primary schools, and higher among towns and small, sparsely populated districts that have fewer pupils enrolled in primary schools. This suggests that the cost of providing primary education is low in large districts and high in sparsely populated districts and towns. In other words, primary education had been provided more economically in highly populated districts than in remote and sparsely populated districts. The provision of facilities has tended to improve over the years but has varied across districts: insufficient classroom provision was a common problem across districts except in small districts closer to towns and villages; unqualified teachers tended to be posted to remote districts; and repetition and drop-out rates were also higher in these poorest and most remote districts. The Standard 7 examination results reveal also that the quality of public education is lower in poor and remote rural districts.

This all suggests that more efforts are still required to achieve a level of quality primary education that is equitable for all school-age children across the country. To achieve that the country will need to address factors that still hinder the provision of school facilities within districts and factors that deter parents from sending their children to school, such as poverty and lack of appreciation of education by certain communities, which tend to lead to high drop-out and repetition rates.

The effectiveness of public expenditure management and the budgetary process

The budgetary process integrates the education recurrent and development budgets in a six-year NDP. The education budget is prepared in accordance with expenditure ceilings set in the NDP and directed according to the education goal set out in the education policy. The education budget process is consultative, involving a number of actors such as the various departments within the Ministry of Education (MoE), Directorate of Public Service Management (DPSM), Ministry of Local Government (MLG) and local authorities, the Ministry of Finance and Development Planning (MFDP), and Parliament. The legislature passes the budget and the MFDP disburses the funds and has mechanisms in place to ensure that funds are used efficiently, as required by the Finance and Audit Act.

The planning and budgetary system has facilitated the running of the education sector budget before and after UPE was introduced. It has been able to control erratic reallocation of funds from one line item or department to because of a rule that unless a project is in the plan, it cannot be budgeted for nor implemented. The other positive aspect of the planning system over the years has been its ability to integrate aid into the overall education planning process. Although the system of planning appears rigid, there are mechanisms built into the system to allow for flexibility and adjustments. Only Parliament has the authority to add new education projects to the plan. The ordered flexibility and adjustments have allowed the country to conduct its plans, and to actually provide education services to the country, in an environment marked by extreme unpredictability of resource availability.

However, the system has not been without problems. Often inadequate disbursement, due to under-budgeting, and late disbursement of development funds for educational projects have resulted in insufficient time available to local authorities to prepare supplementary estimates, prepare tendering documents and successfully carry out the budgeted activities at the same time. As a result, some local authorities have always returned unspent money to the MFDP at the end of the financial year, thus bringing into question the capacity of the planning and budgetary process to ensure the smooth implementation of budgeted projects. As a consequence, plan objectives were not achieved due to under-budgeting, which was associated with underestimation of enrolment figures, the increased number of repeaters, and also lack of capacity among the construction companies and technical and supervisory staff at the local councils. The record of implementation of budgeted projects shows that the budgetary provisions have consistently related poorly with the planned targets. This is reflected partly by consistent preparation of supplementary budgets estimates, and the massive backlog of unimplemented projects to date.

Expenditure ceilings are reportedly imposed at such low levels that they make the provision of planned projects impossible during the life of the NDP. Such under-provision makes both the district and national plans unrealistic as they set targets they cannot meet. Under-provision further delays the implementation of projects, as a lot of implementation time will be consumed preparing supplementary estimates to address the shortfalls. The end results are project spillages, which affect the implementation of projects planned for the next financial year. This has rendered the planning system inadequate to

address successfully and on time the massive backlog of provision of primary school facilities across the country.

Other concerns related to a long-time neglect of staffing local authorities adequately. This was blamed on the past trend of allocating almost all newly qualified graduates from the university to the central government at the expense of local government. As a result, the local authorities have consistently lacked capacity to implement projects, and as capacity was used as the basis for allocating funds to local authorities, they always received funds inadequate to cover all budgeted projects. To that end, the planning and budgetary system undermined the provision of school facilities across the country and the achievement of UPE.

In recent years, the audit reports pointed to inappropriate use of public funds and lack of action taken against the offending parties. It was further observed that by failing to take action against defaulting companies, the system further weakens the planning and budgetary process's legal statutes that should enforce efficiency in the implementation of the budget. It further condones and perpetuates a culture in the industry of lack of commitment and professionalism. The consequence of this is that companies awarded tenders have no qualms of conscience about abandoning projects before their completion, the result of which is delays and costs escalation, which defeats the government's financial objective of using resources sparingly.

While there is no question about the usefulness of Botswana's planning system, particularly when judged by the country's impressive achievements, there are concerns that the model may not be effectively delivering in certain areas. There are concerns about the capacity of the system to effectively implement the projects it has formulated (as in the mid-term review of NDP 7). A careful reading of the 1993 report of the NCE clearly illustrates that the system never paid sufficient attention to quality of its output. The rate of provision of primary school facilities has remained poor since the introduction of UPE in 1980. The poor quality of teachers' accommodation and the continued use of a double-shift system up to today provide ample evidence of the weaknesses of the planning and budgetary system.

The system also requires the capacity to plan at all levels of government, that is, from central to local government. However, the capacity of some districts to plan and implement sector activities is low, leading to low absorption of the disbursement from the central level. The apparent lack of legal action taken against offending parties, in this case defaulting construction companies, suggests that the Finance and Audit Act is only good on paper. The systemic excess of revenues over expenditures, and the ease of access to budgetary resources, appears to be undermining serious budgeting in Botswana, as line ministries knows that they will always spend some valuable time preparing supplementary budgets. The consequence of which has been failure to implement planned projects timely, as observed by the continuous backlogs of classrooms and teacher's quarters that had been allowed to spill over to the next plan years.

1 Introduction

1.1 Universal primary education: the ever-receding goal

Universal primary education (UPE) is a goal that was first recommended in Botswana by the first National Policy on Education (NPE) in 1977, as a response to growing national demand. The policy emphasised primary education as it viewed it as the first step in laying the foundation for future educational opportunities and life-long skills. Its dual function as a factor in economic growth and in reducing the incidence of poverty was also acknowledged. Following on the recommendations of the NPE, in 1980 the government, through National Development Plan (NDP) 5 (1979–85) and in subsequent plans, pursued UPE with vigour. At the political level its objectives were pragmatic as politicians responded to public demand for more education. UPE was further reconfirmed as a goal by the Revised National Policy on Education (RNPE) in 1993, and the virtues of providing quality primary education were described in detail.

Yet, for all the inherent goodness that primary education offers and the zeal with which the government has pursued UPE over the last two decades, the goal of UPE remains to be achieved. A positive trend noted is that enrolment expanded quite massively since the introduction of UPE, but the quality of teaching remained low, as teachers remained under-qualified. This study reviews UPE reforms in Botswana since 1977, from both the policy and financial perspectives, with a view of drawing lessons that can be of benefit to other developing countries that are in the process of implementing UPE or intend doing so.

This study forms part of a larger research project, which comprises two other country studies in sub-Saharan Africa (SSA) – Malawi and Uganda – and a literature review. The study was commissioned by the Institute of Development Studies (IDS) at the University of Sussex.

1.2 Objectives of the country case study

The main objectives of the study are:

- To detail education policy reform in the country and explore the country specific context in which reform and particular aspects of reform were introduced
- To review how UPE has been achieved from a financing perspective and what implications the achievement of universal access has had on primary education outcomes
- An assessment of the effectiveness of the budgetary system to allocate resources efficiently (e.g., can improvements in the budgetary process lead to better outcomes, or are additional resources required?).

1.3 Scope of the study

The study will attempt to address the three objectives above by analysing three main areas through research. First, an overview of how the policy of UPE came about will be conducted, with a view to

identifying the main drivers of UPE reforms. The concerns of introducing UPE to other interested stakeholders will be assessed. In this area, the study will also try to answer the following questions: was UPE only about quantity or was it also framed in terms of quality, and what aspects of quality reforms were included and actually implemented? Overall, the study seeks to document progress made towards UPE and how this was financed. The second area of interest to this study will be a detailed analysis of public expenditure on education, primary enrolment and education outcomes over time. This will examine the public expenditure management system with the intention of finding out how budgets are set for and within education and providing an institutional analysis of the key actors in the system. Lastly, an examination of the relationship between achievement and expenditure across districts or lower administrative units across the country over time will be conducted.

Some of the hypotheses that will be explored are:

- The move to UPE was part of a broader set of economic and education reforms, but received less political, budgetary or administrative priority than other parts of the package.
- UPE was a separate, clearly defined reform objective, sought for political reasons, but was unplanned and/or under-resourced; access was the objective and quality was ignored or forgotten.
- Increasing access was necessary before issues of quality could be addressed.
- Increases in financing associated with the move to UPE did not come about through a reallocation of expenditures from other sectors or sub-sectors, but from absolute increases in the size of the overall government budget.
- The budgetary system is sound, but sufficient financial resources were not forthcoming to finance UPE.
- The budgetary system is sound, sufficient finance was allocated, but the key constraint was the translation of financial into real resources (e.g., trained teachers, classrooms and materials were not available for timely procurement).
- There has been a quantity–quality trade-off: as enrolments in primary education increased the quality of primary education declined.

1.4 Methodology

Data were collected in the form of documents and statistics, and from a large number of interviews at central and local levels (see Appendix 1 for a list of interviewees). At the central level, the head offices of all the relevant line ministries, heads of departments or their deputies, and relevant officials were consulted. At the regional level, three small case studies were conducted in three district councils – two in disadvantaged areas. The visits and interviews were intended to supplement the more comprehensive data gathered from official sources.

Data collected from official documents were used to measure quantitative expansion in education, as well as regional differences in participation in education, teacher–pupil ratios, classroom–pupil ratios, availability of primary school facilities, and costs and financing.

1.5 Organisation of the report

Chapter 2 looks at policy developments in Botswana, setting out the contextual background within which UPE policies have been pursued. It discusses reform measures that were introduced to universalise primary education in Botswana. It identifies who was involved, what perspectives were brought to analyse UPE problems and what UPE policy strategies emerged.

Chapter 3 reviews the impact of UPE reforms on the primary education system over the years, and looks at the current status of UPE. Chapter 4 deals with the overall public expenditure allocation across sectors of the economy and, in particular, the education sector, especially primary education. It also addresses issues of efficiency in the allocation of expenditure within the education sector. Chapter 5 identifies the regional inequality problems and issues that, notwithstanding some major achievements, have arisen as a result of the extremely rapid development of education since independence. Chapter 5 also offers some general recommendations regarding educational policy for the 1990s. Chapter 6 examines the public expenditure management system and explores how budgets for education and budgets within education are set. It provides an institutional analysis of the key actors in the public expenditure management system. Chapter 7 summarises and discusses the findings of the study and offers some conclusions.

2 National influences on UPE policy

National influences on UPE policy and practice are identified through two key sources. First, the political and economic influences that have shaped government policy on UPE are discussed. Second, the perceptions of key policy-makers at the national level and local authority administrators directly responsible for implementation, obtained through in-depth qualitative interviews and literature search, are considered. In doing so, four critical themes are pursued. To what extent, if any, was the move to UPE part of a broader set of economic and education reforms, and did it received less political, budgetary or administrative priority than other parts of the package? What was the economic situation when UPE was being considered and was this important? Was UPE a separate, clearly defined reform objective, sought for political reasons, or was it unplanned and/or under-resourced, where access was the objective and quality was ignored or forgotten? What were the main reasons for pursuing UPE?

2.1 The political, economic and equity context of UPE reforms

Botswana's planning system, policies and development strategies have been guided by a set of four national principles of democracy, development, self-reliance and unity. The four principles were to guide the nation's efforts to achieve its philosophy of social harmony or *keagisano*. Education was regarded as the most important tool to help realise the nation's aspirations and principles. In his 1969 speech to the Botswana Teachers' Union Conference, Seretse Khama, the first President, underscored the point that teachers had a unique opportunity to put these principles into practice. He noted that for democracy to develop and survive people had to know how to read and write, and for development to be realised, the country needed an educated workforce that could appreciate the need for change. These objectives could be achieved through education.

2.1.1 Political influences

While a parliamentary political system has existed in Botswana since 1965, no particular political party articulates a strong ideological position. All political parties, however, called for increased access to quality education for all citizens, but with varying emphasis. The influence of three political parties – Botswana Democratic Party (BDP), Botswana People's Party (BPP) and the Botswana National Front (BNF) – in the introduction of UPE in Botswana needs to be highlighted. Prior to the introduction of UPE in 1980, resource constraints forced the BDP, which had ruled Botswana since independence, to advocate a gradual and guided expansion of primary and secondary enrolments. The ruling party initially prioritised the improvement of secondary education as a response to a severe shortage of skilled manpower, rather than universalising access to primary school.

In its first manifesto in 1965 the BDP campaigned on the platform of introducing compulsory education for the first four years of primary schooling. However, resource constraints made it difficult for the BDP government to achieve that goal, and in its 1969 manifesto the party's position was to concentrate on improving standards rather than to press for dramatic and deceptive numerical expansion. Within primary education quality was emphasised, rather than quantity, in order to provide well-qualified

primary school leavers for entry to secondary level education. It noted then that it was not attainable for all children to be in school. The party's policy was to gradually expand enrolments and at the same time ensure that adequate financial resources were available for the provision of infrastructure that would maintain and improve standards of teaching and learning.

The two visible opposition parties, the BPP and the BNF, in 1966 advocated providing compulsory universal primary¹ and post-primary education and training, and adult education and training for all. The BPP and the BNF maintained their criticism of the government's neglect of the education system in Botswana until UPE was introduced in 1980, but in all their manifestos they were not specific on financing as the country was facing severe resource limitations. However, the constant criticism of the BDP government, which was perceived to have abdicated its responsibility to educate all primary-age children, preferring to pursue a colonial policy of educating a privileged few, earned the opposition more rural seats in the 1969 election. The opposition parties increased their parliamentary seats from three to seven, out of a total of 32 national assembly seats. The 1969 election saw the ruling BDP's popular support drop from its 1965 level of 80.4 per cent of the electorate to 68.3 per cent. In addition, the opposition picked up 52 local council seats, 23 more than in 1965 (Picard 1987).

The 1969 election setback forced the BDP to prioritise rural development. The ruling party interpreted the 1969 election results as suggesting that potential future political threats would come from disenchantment in the rural areas (Picard 1987). Therefore, rural development efforts were given more coverage in the 1970–5 NDP published just after the election, compared to previous plans. Approaching the 1974 elections, the government gave priority to primary education. Picard (1987) observes that the BDP government's strategy was to provide visible and symbolic evidence of government development activity throughout the country to reverse the erosion of its support in rural areas. Accordingly, to convince rural voters that the government was serious about economic development in rural areas, the BDP government prioritised and embarked on an Accelerated Rural Development Programme (ARDP) from 1973 to 1978. By the election year, the ARDP, which used development grants from Scandinavia and Germany, had built a highly visible physical infrastructure, mostly primary schools, across the country.

The BDP government also reduced school fees by half in 1973, leading to a massive increase in Standard 1 enrolment of about 60 per cent that year. However, there was no statement in the 1974 BDP manifesto that the party was preparing to introduce UPE. Nonetheless, the initiatives were appreciated by almost every household in the country, but of course they were politically, rather than educationally, motivated. The BDP was very successful in the 1974 elections, gaining three additional seats in the National Assembly and increasing its overall percentage of votes to 77.7 per cent. The BDP also recorded impressive gains in district councils where it increased its total share of elected seats by 31.8 per cent (Picard 1987). This suggests that public and political pressure from the opposition also played a major role in the gradual expansion of primary education in Botswana. However, continued pressure on the ruling party from Members of Parliament from the ruling party as well as from the opposition led to the

¹ All defined UPE as free and compulsory primary education for all eligible school-age children.

formation in 1976 of the National Commission on Education (NCE), which was asked to make a thorough review of the education system resulting in the first NPE in 1977. It is equally important to note the important role played by the donor community in funding primary school infrastructure, as more quantitative expansion of enrolment was planned. The NCE's work could not have been successful had it not been for the assistance of the donor community who funded most of its activities. The international donor community's keen interest in funding education in Botswana could to some extent have been influenced by education research in the 1970s, which emphasised the high economic and social returns to primary education.

2.1.2 Economic influences

In addition to political motives, resource availability also influenced the introduction of UPE in Botswana. Despite the poor start, the country experienced a remarkable record of economic growth in the decades following independence, largely due to the discovery of extremely rich mineral deposits, most notably diamonds. From 1966 to 1990, Botswana's economy was among the fastest growing in the world, with average annual growth of gross national product (GNP) per capita averaging 10 per cent from 1965 to 1980, and about 8 per cent from 1980 to 1987. Such rapid economic growth provided more resources that allowed the government to increase its investment in the provision of social services, as compared to the first few years after independence. Public expenditure in the social sectors rose from 4 per cent of gross domestic product (GDP) in 1973 to above 9 per cent in 1977, and has generally remained between 9 and 12 per cent thereafter. In 1973, government was for the first time able to balance its recurrent expenditure needs, and the improving mineral revenues provided more resources that could be used in primary education expansion, hence the reduction of primary school fees that year. The continued improvement in revenues over the years, and the forecast average annual GDP growth of 10.1 per cent between 1979 and 1985 ultimately influenced the introduction of UPE in the NDP of 1980. However, over and above the general improvement in the economic situation of the country, one other related factor that influenced the introduction of UPE was the perceived need to educate citizens who would be able to sustain the economy's growth over years to come.

2.1.3 Equity influences

In the 1974 manifesto, the BDP observed that in spite of the reduction of fees in 1973, about 40 per cent of primary-age children were still not in school. The party noted that social justice could not be completely achieved without equal educational opportunities and that equal educational opportunities were impossible unless all children were in school. This implied that equity considerations were also paramount in the decision to introduce UPE in Botswana. Increasing social and national demand for education led the BDP in the 1979 elections to campaign on a platform for free and universal primary education for all. Making the pronouncement in an election year indicates another, political, motive. However, the outcomes of the NCE (GoB 1977) no doubt acted as a catalyst in this process, when emphasising the role of education in achieving *kagisano* (social justice), Botswana's national philosophy.

Upon re-election the BDP government decided to allocate educational resources in a way that maximised benefits to the nation, while ensuring that educational opportunities were equitably distributed. At the primary education level, this policy led to the aim of making a minimum basic education accessible to everybody. The subsequent NDP 5 (1979–85) stated that the government attached the highest priority within education to the primary education sector, and opted to provide universal access to primary education. This was in the interests of equality of opportunities and of developing the potential of all children. And because primary education laid the foundation for further education and training and for productive employment, the government opted to improve its quality and relevance. The party manifesto also promised that more schools would be built, especially in rural areas, to reduce the inequality that existed between rural and urban areas. The primary school curriculum was to be strengthened to cope with new developments and facilities expanded to make adequate room for the increased intake of children. Furthermore, this shows that the ruling party's political commitment and influence on the introduction of UPE was gradual and constrained by resources. The government was concerned not to go for massive quantitative expansion at the expense of qualitative improvements. Equity considerations were also major factors that influenced the introduction of UPE in Botswana.

2.2 Education reform and UPE

2.2.1 National Policy on Education

Botswana's education policy development was shaped and guided by two education commissions. The first NCE carried out its review in 1976 and a National Policy on Education based on the NCE's work was adopted by the government in 1977. The NPE was a significant milestone in the history of Botswana's education system in that it provided a sound framework for educational planning and for the provision of education. It also closed a chapter on one of the legacies of Botswana's colonial history – that of restricting access to quality education to only a few privileged individuals.

Out of all the education levels the first NCE was asked to consider, it accorded the highest priority to improvement and reform at the primary level. The NCE noted that despite the expansion achieved since 1973 primary education remained in disarray. It observed that government had not been in control of the expansion since 1973, nor did it have any coherent policy on future development. It found that the administration of primary education was poorly co-ordinated and that the level of learning achieved by primary school completers was poor, thus compromising the quality of students admitted to secondary education. Overall, because primary education was the most important of all the stages of education, and because at that time primary pupils were ten times as numerous as secondary pupils, the commission found it prudent to prioritise improvement in primary education. Furthermore, from the point of view of nation-building, it was observed that through primary education, an individual child could derive its sense of belonging to the wider society of Botswana, and come to understand and appreciate the full meaning of the national principles and philosophy.

The first NPE of 1977 endorsed the philosophy of education for *kagisano*, interpreted as education for social justice or harmony. The report observed that the aims of education should focus on developing a person and that access to primary education should be seen as essential in equalising opportunities, if social harmony was to be realised. The philosophy of education, which was inspired by the national principles, as stipulated in the NCE report, elaborated on the importance of primary education as a first stage in the education process and human development efforts, and recommended the introduction of UPE in Botswana. It observed that from the point of view of the state, it was not only that education provided employment opportunities for school leavers, but also played a major role in changing attitudes and behaviour and the making of the modern citizen.

The NPE set out the country's philosophy of education, setting goals for the development of education and training, and recommending the best strategies to achieve those goals. The NPE envisaged that an ideal education system for Botswana would be one that could be instrumental in the production of a society whose characteristics reflected the national principles. In pursuance of the goal to achieve the national philosophy of social justice, the NPE recommended increased access to education at all levels, with special emphasis placed on achieving universal access at the primary level, and an increase on education expenditure at the primary level to achieve such planned expansion. The report called for universal primary enrolment by the mid-1980s, and 90 per cent attainment of nine years of basic education by 1990 (GoB 1977). It recommended a change in the education structure to seven years at primary, two years at junior secondary, and three years at senior secondary from the previous seven–three–two system. The first nine years of basic education was expected to be attained in the 1990s, after UPE had been achieved. The NPE defined UPE as seven years of primary education services extended to all primary-age children in Botswana. It argued that the country had a responsibility to provide education for all its citizens, including those who were handicapped. It observed that it would not be possible to speak of the achievement of unity and social justice in Botswana while many children were deprived of access to primary education.

The report recognised that compulsory attendance at primary school was not possible at the time, as the authorities might not be able to provide the necessary infrastructure to accommodate all children, and recommended that local authorities should be allowed to institute compulsory schooling as and when conditions made it possible. The report noted shortages of primary school facilities, especially classrooms and teachers' quarters, and recommended that more resources, over and above those already committed, should be allocated to their provision. It pointed to the need for ensuring that schools in remote areas received their fair share of school facilities and qualified teachers. It made a number of recommendations for improving the quality of both new and existing teachers through training and for adjustments to the curriculum. First, more teachers were required to accommodate the introduction of UPE, and additional effort was needed to upgrade the skills of existing teachers. The report then sequenced a programme of reforms that would eventually lead to the attainment of UPE. These were: to expand the facilities available for the upper primary classes to accommodate the expected increase in numbers; to build more primary

schools; to abolish fees; to institute a phased takeover of aided primary schools; to provide two-teacher schools in remote communities;² and to make equitable provision of qualified teachers across the country.

By the time the NPE was reviewed in 1992, most of its recommendations had been implemented. The most visible impact of implementing the NPE was the massive expansion in primary school enrolment, which increased from 171,914 in 1980 to 301,482 in 1992. This was also reflected in the increase in both the gross enrolment rates (GERs) (from 101 to 114) and net enrolment rates (NERs) (from 86 to 95) from 1980 to 1992. However, the provision of two-teacher schools in remote communities lagged behind, due to conflicting policies in the Ministry of Local Government (MLG) and the Ministry of Agriculture about the size of a community that qualified to be provided with social amenities. The impact of upgrading primary school teachers' professional qualifications through the Department of Primary Education at the University of Botswana was limited as a result of low enrolment. Therefore the quality of primary teaching remained low. The provision of school facilities also lagged behind, resulting in shortages in classrooms and double-shifting.

2.2.2 Revised National Policy on Education

The NPE guided the country's education policy until the RNPE was adopted in 1994. The government reconvened an NCE in 1992 in order to reassess future goals and priorities. In spite of significant achievement in expanding basic education since the first commission, the quality of education and the employment prospects for school leavers had become a major concern of political leaders and the public. This led the President to convene a Commission in 1992 to review past achievements and problems and to make recommendations for the future. The Commission released its report in 1993, effectively 13 years after the introduction of UPE. The report found that UPE had not yet been achieved and reaffirmed the goal of universal access to primary education and, just like its predecessor, to basic education (now extended to ten years). The Commission's report acknowledged quantitative expansions in enrolments during the period in which the first NPE was implemented. As regards non-achievement of UPE, the report endorsed the earlier findings of the UNICEF 1989 study,³ which identified several reasons why children did not go to school. Among these were poverty, distance to school, cultural factors, economic factors, disabilities and drop-outs. To that end the Commission's report proposed other strategies through which universal access for all could be achieved, both for children and adults. These included out-of-school education, education for the poor and disadvantaged, and education for people with disabilities. The report further observed the massive under-provision of primary school infrastructure, which was attributed to the poor workmanship of small local contractors and lack of skilled technical officers within local authorities. It recommended prioritisation and a special provision of such facilities.

² Two-teacher schools were to be built in settlements that were below the threshold that would normally require a school to be provided according to government procedure.

³ The UNICEF report, using 1981 population census projections, observed that 17 per cent of school-age children were not in schools in 1989. However, by 1993, the MoE reported that the figure of missing children was 10 per cent. But doubts on the statistics have been expressed in different forums, largely due to the unreliability of both the population census and education statistics (see Chapter 3).

The RNPE based on the Commission's work was accepted by government in 1994 (GoB 1994). The revised policy emphasised some of the same issues as the initial policy, for example, access and equity, effective preparation of students for life, citizenship and work. The RNPE also emphasised the importance of improving school quality, making education more relevant to the world of work. On teachers' welfare, it observed a decline in the working conditions and status of teachers, particularly at the primary level, relative to other occupations. This was largely attributed to poor provision of teachers' quarters, which resulted in teachers sharing houses that were not meant to be shared. It noted that shortage of classrooms resulted in double-shifting and teaching outside, which was not popular with teachers. All these factors were found to have demoralised teachers and rendered the quality of teaching poor. The government adopted a series of recommendations, including: upgrading teacher preparation and conditions of work; improving the quality and facilities available at the primary level; making education more relevant to work, and addressing the needs of the wider range of students and abilities in the schools (GoB 1994).

2.3 Education planning and implementation: NDPs

While there is a lack of political party ideology in shaping government priorities, the extent to which the NDPs influence policy priorities of the government and its institutions is of importance and needs to be stressed. NDPs have been used in prioritising government programmes for funding from 1966 to the present day. Although lack of implementation of agreed projects has daunted the planning exercise since it began, planning remains a prominent feature in Botswana and provides direction in political and administrative thinking on government policy.

In Botswana, government policies, goals and objectives are sector-based. For the education sector the NPE of 1977 and the RNPE of 1994 are the documents that have driven education planning. The NPE and RNPE were both products of the recommendations of the NCEs. Policy pronouncements on the provision of education are outlined in these documents, while the set of activities which constitute the plan of action are found in NDPs, the overall government planning documents that span a period of six years. In other words, the policy objectives laid down in the education policies are prioritised and implemented through the NDPs. However, on a number of occasions the implementation of education projects fell short of their NDP targets, resulting in project spillages to the next plan periods.

The first two NDPs, covering the period 1966 to 1972, faced serious resource constraints, as the government was dependent on grant-in-aid from the United Kingdom to make up its internal revenue deficit. Faced with such a situation, the plans prioritised exploitation of the country's mineral wealth as a strategy to make Botswana a financially viable and self-sufficient country in the shortest possible time. During this period, as remains the case today, NDPs provided a detailed shopping list of projects planned for implementation and to attract funds from donors. The education policy was not clearly defined in the early plans, save for the recognised need to improve the standard of education as a prelude to achieving manpower self-sufficiency. This was made more urgent by the fact that there were only two secondary schools in 1966 that offered full five-year courses. The quality of education was uniformly poor with large

class sizes and a high failure rate. The lack of education was reflected in the make-up of the civil service with only a quarter of 1,023 civil servants in 1965 being Batswana (Harvey and Lewis 1990: 21). To that end, the first plans prioritised economic growth and secondary rather than primary education on the grounds of manpower needs, but noted that the long-term objective of the government was to provide universal primary education. By the mid-1970s the government budget was in surplus as the diamond income began to accrue, and provided more resources for the government to spend in areas it could not previously invest in.

The NDP 5 (1979–85) was the first plan to start implementing the recommendations of the first NPE, by prioritising universal access to primary education in the first years of the plan, followed by an expansion of Community Junior Secondary Schools (CJSSs). The government's actions matched closely the recommendations of the NPE, with the abolition of fees in 1980, and thus introducing UPE. To accommodate expanding enrolments a massive primary classroom construction initiative was undertaken,⁴ accompanied by the expansion of the three existing primary teacher training colleges and the construction of a fourth. To improve education quality, the government, in partnership with the United States Agency for International Development (USAID), launched the Primary Education Improvement Project (PEIP) in 1981. PEIP set up a Department of Primary Education at the University of Botswana, which started to train teachers for the primary teacher training colleges to degree level and to carry out a series of in-service training programmes to upgrade under-qualified primary school teachers to diploma level. To improve primary school management, pre-service and in-service training programmes were established within the department for teachers, head teachers and inspectors. However, from interviews it is apparent that the project had limited impact in upgrading the skills of many under-qualified teachers, as its enrolment was restricted to 30 students a year.

To increase the number of teachers to accommodate the expanding enrolment NDP 5 implemented in 1980 one of the recommendations of the NCE, Tirelo Sechaba,⁵ a scheme of national service whereby senior secondary leavers were recruited to work as unqualified teachers in primary schools. It was envisaged that the quality of the output from primary schools would increase if the untrained teachers had 12 years of academic education instead of seven, as previously the case. This was an interim solution as the scheme was abolished in 2000.

From the time the 1977 NCE report was published, an entirely new primary curriculum was designed and introduced. The curriculum emphasised the attainment of basic literacy in the national language, and basic competence in English and mathematics. The curriculum emphasised the practical rather than the academic aspects of education, given that some students would end their formal schooling after seven years. It was also meant to be student-centred and draw upon the students' experiences from everyday life. An assessment test was introduced for Standard 4, and students were allowed to repeat Standard 4 if they

⁴ This is because the first NCE on education found that the shortage of classrooms constrained access and enrolment throughout the country.

⁵ Tirelo Sechaba was a non-military national service scheme, established in 1980 to provide senior secondary school leavers with life/work experience, before they entered higher education or working life.

had not yet attained literacy in the national language and predefined competences in English and mathematics. To achieve an early breakthrough with the national language, PEIP introduced in-service and pre-service workshops for primary school teachers to upgrade their skills for introducing a new language to students who did not speak Setswana. The programme emphasised interactive teaching as opposed to lecturing, and the programme is reported to have been successful. At the end of the NDP 5 implementation, 85 per cent enrolment had been achieved, although urban–rural disparities persisted. Primary classroom construction fell short of original projections, but the target of 50 per cent progression to junior secondary school was met.

NDP 6 (1985–91) prioritised UPE and set the end of the plan period as the target date by which it should be achieved. During the course of implementing the plan the international enthusiasm for education for all gained momentum with the 1990 Jomtien Conference on Education For All (EFA). The Jomtien Conference drew attention to the major gaps that still separated many countries from achieving universal basic education, and called on all developing countries to have achieved universal access to primary education or whatever level of education was considered basic by the year 2000. The adoption of the Jomtien EFA framework found Botswana in the middle of implementing its own goals towards provision of nine years of basic education for all its citizens, and well ahead in implementing its UPE policy. By 1989, 90.5 per cent of primary-age children (7–13 years old) were already enrolled in schools (NDP 7).⁶ During this period, Botswana had for some years been implementing its basic education policy for universal access to nine years of schooling, the National Literacy Programme, and national priorities in educational development were focusing on issues of quality and on expansion in other areas of the education system (Seisa and Youngman 1993). These illustrate that Botswana had not only undertaken huge efforts to progress towards the goal of UPE, but was also improving the capacity of secondary schools to absorb primary school graduates, and that efforts to improve educational quality were also in progress.

Furthermore, during the course of the plan, pre-service and in-service teacher training at primary level was expanded. One of the measures taken to improve the quality of primary education was to reduce the proportion of untrained teacher from 26 per cent in 1985 to 16 per cent in 1991. In spite of efforts to train teachers and maintain school quality, schools were experiencing difficulties coping with the growing number and diversity of students. By the end of the plan period, 91 per cent net enrolment had been achieved. However, UPE remained elusive and constrained by lack of provision of adequate educational inputs and facilities during the plan period.

The plan had set a target of providing 80 per cent of all classes with classrooms.⁷ That meant building 2,600 new classrooms, but this target was not attained as only 1,138 new classes were completed.

⁶ Botswana NDP 7, 1991–7, indicates that the achievements have been for the first seven years of primary education, and that access for all to the full nine-year basic education is still to be attained.

⁷ Classroom provisions are based on a norm of 40 students per classroom. However, the basis for providing teachers' houses and school toilets was not immediately clear during the implementation of the first NPE, but the RNPE recommends one teacher per two bed-roomed house.

The lack of provision of classrooms was due to financial and implementation constraints. In addition to the classroom deficit, by the end of the plan period there was a backlog of 162 teachers' quarters and 615 pit latrines (NDP 7). The shortage of classrooms, teachers' quarters and toilets persisted throughout the plan period because of increased enrolments and delays in construction that were attributed to lack of supervisory capacity of the district councils. Furthermore, 1987 reports from districts revealed serious shortages of primary school supplies (pupils' books and stationery), attributed to poor procurement and delivery services by booksellers. The Ministry of Education (MoE) and MLG in 1990 centralised the procurement of books and stationery as a step towards improving the situation.

NDP 7 (1991–7) also aimed to achieve universal primary education, and improve the quality of primary education. The plan adopted a number of strategies to achieve UPE, including one/two-teacher schools, non-formal education and boarding primary schools as intervention measures to address problems of long distance and high drop-out rates in remote settlements, and special education units in primary schools to cater for the disabled. However, these strategies were not fully implemented. The one/two-teacher school strategy was never put into effect because of difficulties in providing infrastructure for the target settlements and conflicting policies. The NPE recommended one/two-teacher schools for settlements with fewer than 500 people, but the MLG could only provide amenities, including primary school facilities, to settlements with village status, which required a population of over 500 people.

At the end of the plan period UPE had not been achieved, as only 98.4 per cent of the 7–13-year-olds were enrolled. There was not much of a dent on the persistent shortages of classrooms and teachers' quarters. The target set for the plan was to construct 250 classrooms per year, which translates to 1,500 for the whole plan period. However, by the end of the plan period there was a shortage of 3,039 classrooms among government and aided schools, suggesting that the plan had under-provided for classroom construction by a large margin. The implication of such a magnitude of classroom shortage is that double-shifting continued to be a feature of primary education during the plan and will continue to be a problem of the next plans for some time to come, unless drastic action is taken to address lack of capacity within councils, and adequate measures taken against defaulting construction companies. From interviews conducted and a number of studies conducted previously, the lack of delivery is caused by construction companies that abandon projects before their completion, and the problem has persisted because of the absence of measures taken against such companies.

Although implementation of some of the RNPE recommendations was initiated under NDP 7, many of them were implemented by the current NDP 8 (1997–2003). Like its predecessors, it aims to increase access and equity, in order to achieve universal access to primary education. In an effort to raise the quality of primary teaching, the RNPE recommended the introduction of a three-year post-secondary diploma training programme for primary school teachers. This was introduced and thus raised primary teacher training colleges to the same footing as the colleges of education, which train teachers for junior secondary schools. The government also undertook reforms in test development procedures, by introducing Criterion-Referenced Testing as an assessment procedure to be used in primary and junior

secondary schools. This assessment procedure provides more information than the Norm-Referenced Test used before on performance of individual students, schools, educational regions and the overall performance of the educational system from year to year. During the plan period, the government continued to decentralise the supervisory services at primary level.

However, given the poor record of provision of primary school facilities in various NDPs during the entire life of the first NPE, which made the goal of UPE elusive, it is possible to argue that it may be achieved in the next 16 years. In spite of a fact-finding study commissioned by the MoE in 1999, which found that very little effort had been made towards the provision of primary school facilities since the RNPE was adopted in 1994, recent evidence indicates improvement (see Chapter 3). If this remains the trend, then Botswana's efforts to attain UPE and the Vision 2016⁸ goal of having an educated nation by 2016 may be achieved.

2.4 Perceptions of key education administrators

The data in this section were collated from in-depth interviews with officers associated with policy decision-making for UPE. This included current and former education officers, former education ministers and academics. The purpose of the interviews was to establish several key points. First, what were their hopes and concerns regarding UPE reform when it was first introduced? Second, what were their opinions on the quantity-quality trade-off? This information was elicited from the transcribed interview data.

They were first asked to state their hopes and concerns regarding the introduction of UPE reforms. They stated their hopes as expanding access to primary education for all children of school age and providing adequate primary school facilities (i.e., classrooms, teachers' quarters and toilets) within a reasonable time. The intentions were to maintain a facilitating environment for teaching and learning. The main concerns were that if not enough qualified teachers were trained within reasonable time the quality of primary education might be compromised. However, upon reflection and with hindsight, the feeling was that the abolition of fees led to massive expansions in enrolments, and that, combined with the lack of capacity within local authorities, reduced the pace of providing facilities country-wide. The results were massive shortages of classrooms and teachers' houses in primary schools across the country during the drive for UPE. Some local authority administrators blamed the situation on the manpower planning system, which pre-assigned manpower from the university to the central government, even when government was aware of capacity constraints at the local level, as suggesting half-hearted commitment by

⁸ In 1996, a Presidential Task Group commenced work on mapping a long-term vision for Botswana. The Task Group carried out a series of consultations, where citizens were invited to make submissions on their aspirations for the future. The year 2016, which was used as a point of reference, is important to Botswana in that the country will have been independent for 50 years. The Presidential Task Group has since produced a report entitled *Vision 2016: Towards Prosperity for All* (also known as Vision 2016), which has been a subject of public debate. The report features education of citizens as a prominent aspect of shaping and preparing to 'own' the future. According to the Vision, Botswana anticipates a future where citizens would have gone beyond basic education to be an educated and informed nation in the year 2016.

government to the achievement of UPE. On lack of provision of primary school facilities, one of the former ministers of education interviewed observed that when UPE was introduced the government was not ready at that time to provide for primary school facilities, but social pressure necessitated the introduction of UPE. This highlights the observation that, despite the NPE's recommendation for a special fund to be created for the provision of primary school facilities, the government was constrained by resources to adequately plan and provide the facilities.

Politicians interviewed, including two former ministers of education, stated that UPE was introduced for both economic and political objectives. For the economy to grow it needed skilled manpower, and it was felt that good primary education was the foundation for good secondary education. To enhance and sustain Botswana's democracy, people had to be educated. Accordingly, politicians expressed satisfaction with the fact that the introduction of UPE made schools more accessible to a large population of primary-age students and more especially from low-income backgrounds. However, the former ministers of education noted that the unintended outcomes of the massive expansion in primary education were an increase in the number of unqualified teachers, and that the quality of education remained poor. They observed that the current primary education system could best be described as having achieved high enrolments with poor quality education.

Although officers and academics were not too keen to comment on the quality of primary education since the introduction of UPE, they observed that although politicians stated that the quality of education was poor, it was more appropriate to comment on the quality of primary school life. However, the difference between primary school life and primary school quality does not exist, as the factors they all cited as constituting poor primary school life, such as poor teachers' accommodation, shortage of classrooms and teaching outdoors, are all qualitative aspects of the primary education system. They can collectively result in lower morale among teachers and a general poor learning environment for students, rendering the quality of primary education poor. In the worst cases, it was observed that under-provision of facilities in some districts had resulted in these districts failing to attract qualified teachers, leading to them to be staffed by a large proportion of unqualified teachers compared to other regions. The same regions were reported to have consistently performed badly in primary school examination results. Overall, the observations suggest that positive quantitative expansions have been achieved, but more efforts still need to be directed towards improving the quality of primary education. The RNPE stated the need to improve primary school quality. It was generally observed that raising the academic minimum entry level in teacher training colleges from junior certificate to senior secondary certificate would go a long way in upgrading the quality of primary school teaching.

2.5 Summary of findings from Chapter 2

In this part of the study we analysed factors that influenced the introduction of UPE in Botswana, and the subsequent implementation of the policy. We find that among other factors politics played a major part in the introduction of UPE. Universalising primary education was also sought for economic development, achieving equity and for sustaining the young democracy in Botswana. UPE came about as a

recommendation from the first NPE, and was introduced as part of a major education reform strategy, which prioritised primary education as the foundation of all education levels. Earlier expansion in primary school enrolments occurred in 1972, eight years before UPE was introduced as a government goal. During the period 1972–8 we also find that more effort was put into providing primary school facilities, mostly through donor funding. The subsequent improvement in government revenues as a result of exploitation of mineral resources provided more resources to accommodate the introduction of UPE in 1980. However, lack of capacity within local authorities delayed the provision of primary school facilities, leading to shortages that undermined the quality of the teaching environment.

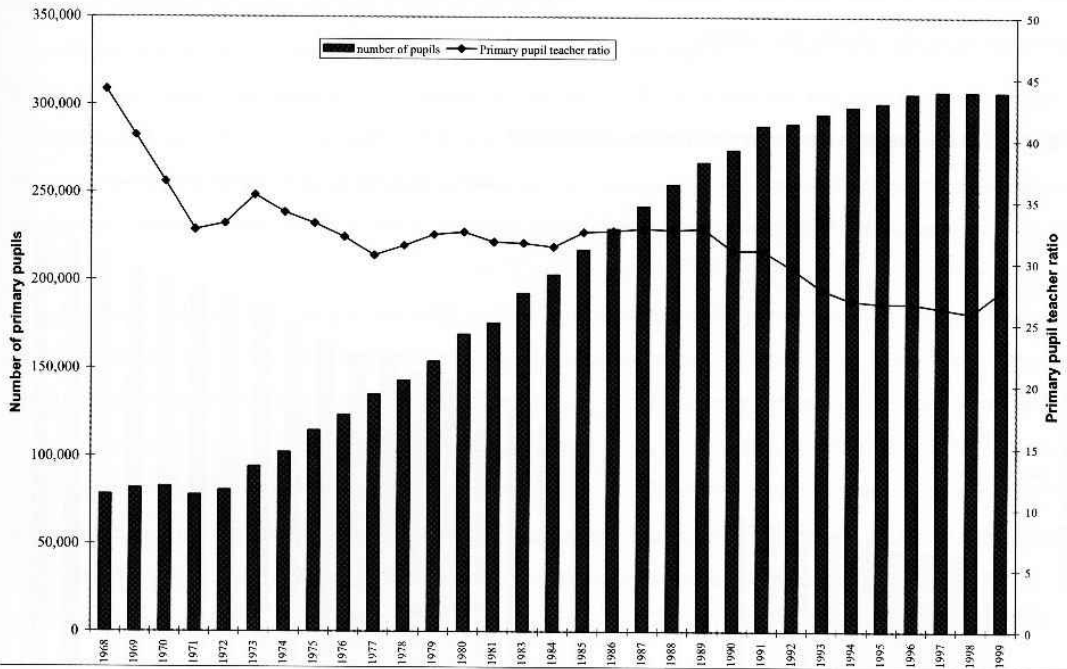
3 Trends in primary education outcomes

The critical issues confronting education policy-makers in Botswana today with regard to primary education arise from the massive post-independence expansion of primary education to attain UPE. This came about as a result of implementation of the first NPE and, since 1994, the implementation of the RNPE. The focus of this chapter is to document progress towards UPE, and assess the degree to which massive expansion in enrolments affected the efficiency of the primary education system, the provision of teaching resources and physical facilities, and consequently the impact of expansion on learning outcomes. After looking at Botswana's education from 1968 the chapter analyses in detail the education system from 1977, the year the first NPE was adopted by government, and UPE was declared as an objective for the first time. The assessment covers only government and government-aided primary schools. Appendix 2 gives a definition of indicators and data sources that are used to document the expansion of primary education and the impact the expansion had on school conditions since 1977.

3.1 Expansion of the primary system

Primary schools expanded rapidly during the last three decades, from 257 schools (4 of which were private) in 1968 to 736 schools (71 private) in 1999 (Education statistics, 1965 and 1999).

Figure 3.1 Primary education expansion between 1968 and 1999



The enrolment figures in Figure 3.1, for government and aided schools, show a marked total increase from 78,186 in 1968 to 307,457 in 1999, reflecting the positive impact of the policy of free schooling since 1980. However, between 1968 and 1972, on annual average, primary enrolment grew by 0.6 per cent only.

One of the reasons advanced for this slow annual growth is that the country experienced a prolonged drought during this period, and many parents had difficulties finding cash needed to pay school fees (P6.00 per year) and buy school uniforms (Kann 1983). The rapid expansion in primary education occurred between 1972 and 1980 in government and aided schools. During this period, the annual average enrolment growth rate of 16.8 per cent was by far higher than that of the previous period. The expansion in primary enrolments during this period was affected by a number of policy decisions. In 1973 the government reduced annual school fees from P6.00 to P3.00, effectively reversing the declining enrolment rates observed prior to 1973. In that year alone, Standard 1 enrolments increased by 59.3 per cent, while overall enrolment increased by 17 per cent, against 4 per cent in 1972. In 1980, fees were abolished altogether and Standard 1 enrolments increased by 16 per cent, while overall enrolment expanded by 10 per cent. The sudden enrolment increases in 1973 and in 1980 provide direct evidence that the direct cost of education had been one reason for non-enrolment. The following decade (1981–90) recorded an average annual primary enrolment growth rate of 4.95 per cent, and the growth rate slowed down to 1.26 per cent between 1990 and 1999.

Expansion in enrolments was accompanied by rapid increases in the number of teachers employed in the primary education system. Between 1968 and 1999 the number of primary school teachers increased almost six fold, resulting in an improvement in the pupil–teacher ratio from 44:1 in 1968 to 28:1 in 1999 for government and government-aided mission schools (see Figure 3.1). The fall in the pupil–teacher ratio, one of the quality indicators, suggests that the quality of schooling was not compromised as primary education expanded during the period.

Figure 3.2 Number of primary schools, 1968–99

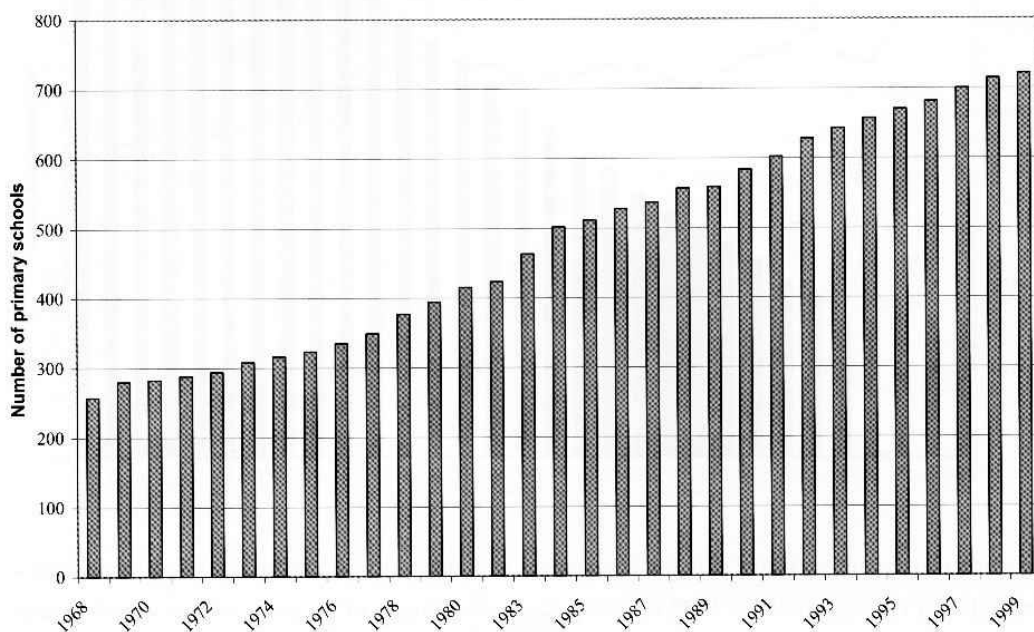


Figure 3.2 shows that the number of schools increased substantially as a result of the school building programme launched in 1973 and ending in 1978. The annual percentage increase in new primary schools built tended to be higher a year before the elections were held, at least until 1989.

3.2 Access and participation

Based on census reports,⁹ Botswana's primary school-age (7–13) population grew at a rate of 5.1 per cent per annum between 1971 and 1981, 3.7 per cent per annum between 1981 and 1991, and by 1.3 per cent per annum between 1991 and 2001. This highlights declining primary school population growth between 1971 and 2001. However, from the enrolment figures above one would expect the gross and net enrolment rates to have increased over the years, and especially during the period primary enrolment was expanding. Because of the unavailability of data enrolment ratios are analysed only from 1981 to 1999.

Three indicators, GER, NER and the gender gap, are used to highlight access and participation in the primary education system since the implementation of the first NPE. The GER¹⁰ covers enrolment at all grades and reflects the general level of access to primary education, regardless of age. The NER¹¹ covers enrolment at all grades, and indicates the eligible population in terms of age that have been admitted. In the case of Botswana, the NER covers the official primary school age population of 7–13 year olds. Appendix A Table A2.2 presents trends in the GER, the NER and both the relative and absolute gender gap ratios in primary schools between 1981 and 1999. Figure 3.3 shows that GER tended to increase from 1981 and stagnated between the late 1980s to the mid-1990s.

Figure 3.3 shows that between 1981 and 1999 a significant number of those who were enrolled were either younger than 7 or older than 13, hence the annual GER exceeded 100 per cent during this period. Disaggregated enrolment ratios, both GER and NER (Figure 3.4), by sex reveal a pattern in which more females than males of the official primary school age of 7–13 years were attending primary school during the period, whereas from 1995 more males than females who fell outside the official age were in the system.

Figure 3.4 shows that, as per the 1981 population census, the primary education level in Botswana enrolled 86 per cent of the children that were eligible to be in primary school (7–13 years), as reflected by an NER of 86 per cent. The enrolment of the official eligible age group expanded by 9 per cent over the next decade, and by 1999 universal access to primary education was almost attained¹² in Botswana, as reflected by an NER of 100 per cent. The enrolment ratios show that more females of the eligible age group were in schools compared to males during the period. However, it is difficult to derive robust NER estimates for the period between census years. Population censuses in Botswana are conducted every 10 years; the last census was conducted in 1991, and the current one in 2001. Previous studies have found

⁹ From the census reports, the total population of Botswana is estimated to have grown by 4.9 per cent from 1971 to 1981, by 3.5 per cent from 1981 to 1991, and by 2.4 per cent from 1991 to 2001.

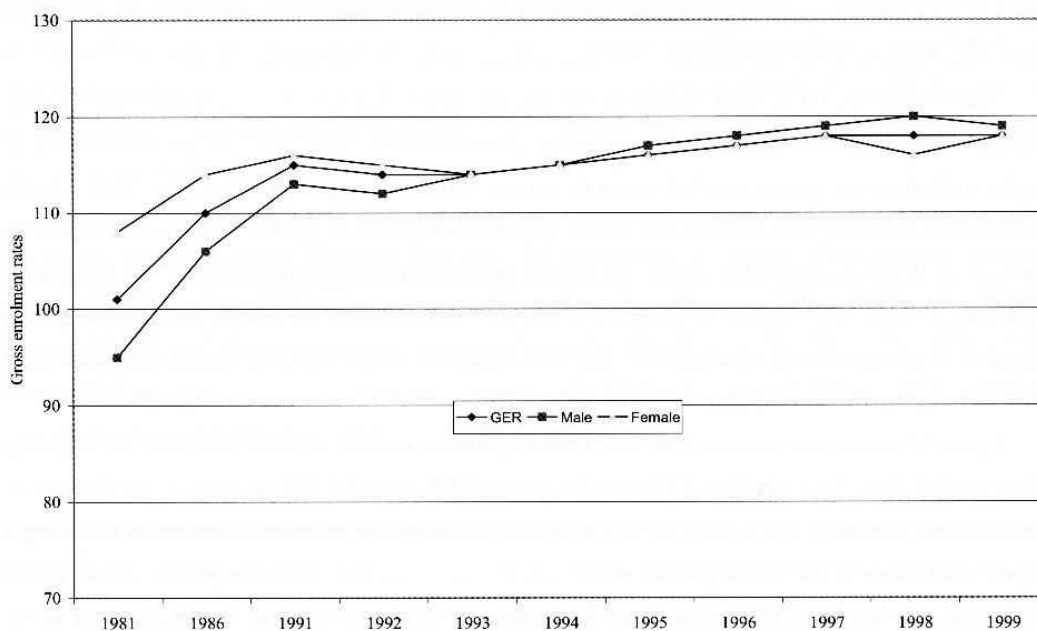
¹⁰ GER = (enrolment / population of the age group) x 100.

¹¹ NER = (enrolment of the population aged 7–13 / population aged 7–13) x 100.

¹² The 1991 population projection data was used in calculating enrolment ratios.

that inconsistencies between the education statistics and the population estimates¹³ in the intervening period of the census leads to inaccurate enrolment ratios (Kann *et al.* 1989). In 1993, the National Literacy Survey found that only 4.7 per cent of males and 2.2 per cent of females aged between 12 and 19 had never been to school (CSO 1993). Unfortunately, there are no recent education statistics that can provide data on children's school attendance by age. This information would have been useful to cross check the correctness of the 1999 NER rate using actual data from the 2001 population census that was recently published.

Figure 3.3 Gross enrolment rates, 1981-99

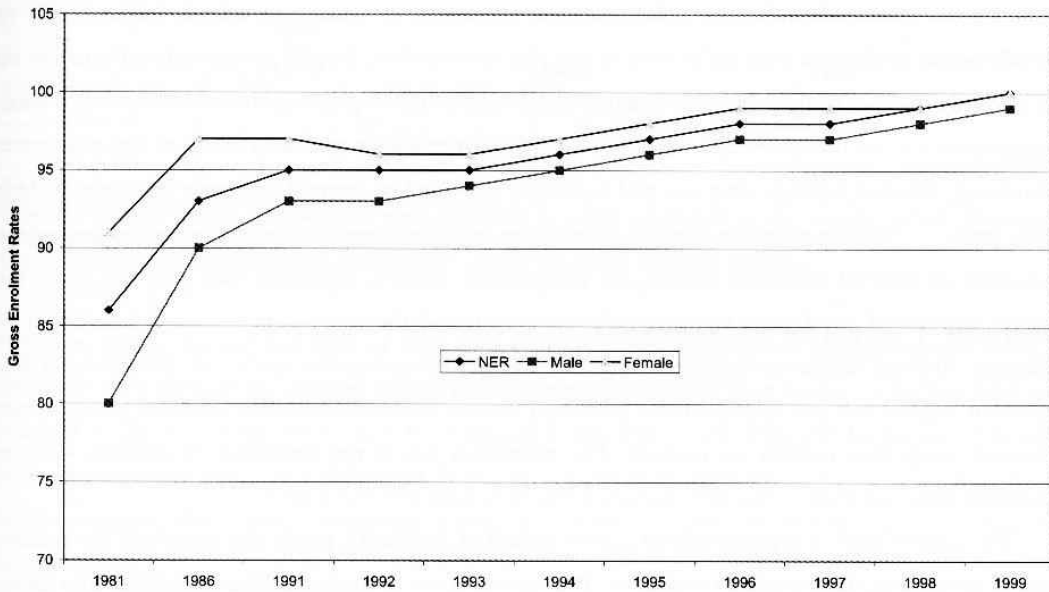


However, the gender differential in enrolments is further revealed by both the relative gender gap (RGG) and the absolute gender gap (AGG) measures¹⁴ (Appendix 2 Table A2.2). The relative gender gap, of over 100 per cent, from 1981 to 1994, shows that more females than males were enrolled in primary schools. A similar pattern is revealed by the absolute gender gap, which shows that in 1981 an extra 11 per cent of the male school-age population would have to be enrolled to achieve gender parity in enrolment. The percentage of males needed to be enrolled to achieve gender parity has been declining over the years, suggesting a massive enrolment of the backlog of males who ought to be in school.

¹³ The education statistics are published with a two-year time lag and collected 1 April, whereas the population censuses are carried out in mid-August.

¹⁴ Relative gender gap = (female GER ÷ male GER), and absolute gender gap = (female NER - male NER)

Figure 3.4 Net enrolment rates, 1981–99



Source: Various education statistics

Previous studies have suggested that the higher percentage of girls' enrolment compared to that of boys reflected a diversion of boys to economic, rather than educational, activity. Allison (1981), observed that the opportunity costs of sending boys to school in the Kweneng district was higher than for girls, as boys were kept out of school to look after cattle and small stock. The pattern observed would seem to suggest that a number of factors contributed to the non-enrolment of boys. Prior to abolishing school fees some were not enrolled because their parents were poor, but those with cattle-farming parents had to look after cattle. It is then possible to deduce that after abolishing school fees, remaining direct costs which continued to be required, such as pot fees, sports fees and the cost of uniform, remained as a constraint to enrolment in primary schools for children from poor backgrounds. It is further possible that richer farmers may have used the labour of out-of-school boys from poor families to substitute the labour of their own children who went to school. If this is the case, such diversion continued until 1995, when gender equality in enrolment at primary level was attained.

From 1998 onwards, there were more males enrolled than females. This could be attributed more to the impact of the enrolment of the backlog of males than to any fall in female enrolments. The results presented also show that over-age enrolment and high repetition (Figure 3.7) among boys are also factors that could explain the sudden increase in boys enrolled in schools. The diminishing importance of agriculture as a source of employment and the dependence on formal employment are believed to have led parents to enrol their children in schools compared to earlier years. Despite the observed weaknesses in data, Appendix 2 Table A2.2 shows that in 1999 all primary school-age females were enrolled in schools.

3.3 Internal efficiency in the primary school system

Although the enrolment indicators above highlight the extent to which the school system is able to provide access to children who are in need of the education service, they do not provide information on the internal efficiency of the education system. In a number of developing countries that introduced UPE, studies have shown that there had been a tendency for enrolment to rise in the year the policy was introduced, followed by high drop-out and repetition rates or low internal efficiency indicators in later years. Internal efficiency indicators provide information on the efficiency or holding power of the system. Indicators of internal efficiency include the progression, survival, repetition and drop-out rates, the average number of pupil years per successful completer, and the input–output ratio or coefficient of efficiency. Internal efficiency indicators can also be used to proxy the quality of education, as less repetition implies that the quality of the education system cannot be regarded as poor, except where automatic promotion policies are pursued. The promotion rate is the percentage of children who are promoted from one grade to the next, including repeaters from previous classes.

The survival rate¹⁵ is a percentage of a given cohort of Standard 1 pupils that completes the primary cycle in seven years (i.e. it excludes repeaters). The repetition rate is the percentage of children who repeat a grade once or more, while the drop-out rate indicates the percentage of children who completely drop out of the system.

The pupil transition model is used to analyse pupil flows within the primary education system. Using the single year statistics on repetition, drop-out and promotion rates three cohort studies of pupils within the primary education system were analysed to provide information on the internal efficiency of the primary education system over the years. The 1978 cohort was used to assess the efficiency of the system since the first NPE was adopted, the 1984 cohort to assess the efficiency midway through the implementation of the policy when enrolments were expanding, and the 1991 cohort to assess efficiency late in the implementation of the policy before its review in 1993. Two measures of efficiency are of interest in analysing these three cohorts: the average number of pupil-years per successful completer, the input–output ratio, and the survival rate.

From the cohort analysis it appears that the survival rates to Standard 7 were higher for girls than for boys, and slightly decreased for both sexes between 1978 and 1991 (Table 3.1). But since 1980, the survival rates had remained constant for girls and increased for boys, showing improvements in internal efficiency. Overall the massive expansion in primary school enrolment in the 1980s was accompanied by high survival rates.

¹⁵ Survival rate by standard = (enrolment in standard ÷ original enrolment in Standard One) × 100. For example, survival rate in Standard Seven = (enrolment in Standard Seven ÷ original enrolment in Standard One) × 100.

Table 3.1 Standard 7 survival rates

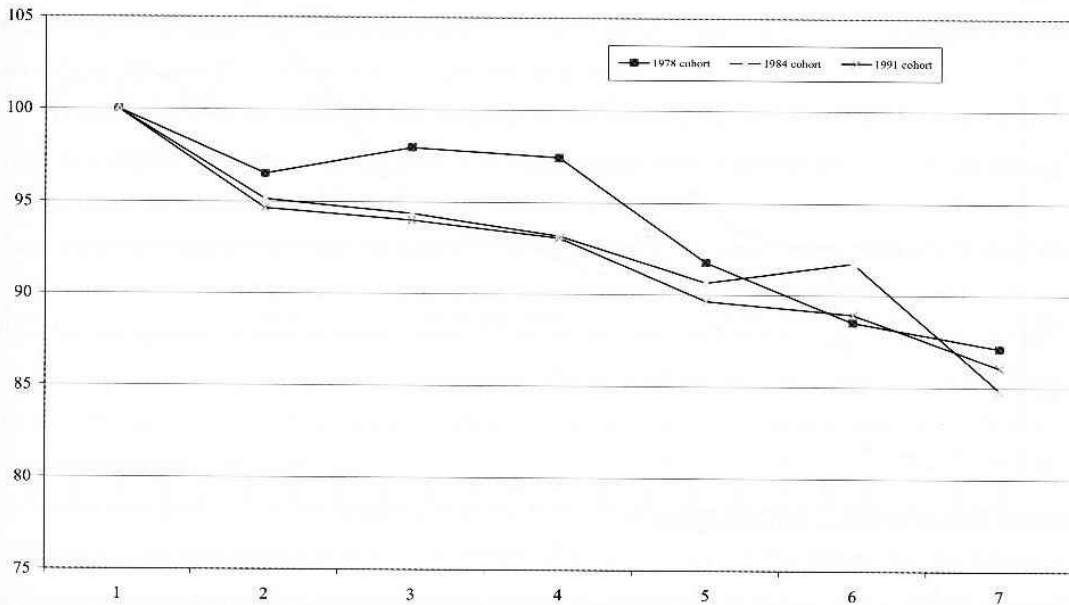
| | Year | | |
|-------|------|------|------|
| | 1978 | 1984 | 1991 |
| Girls | 92 | 91 | 91 |
| Boys | 82 | 79 | 81 |
| All | 87 | 85 | 86 |

Note: The primary school survival rates were generated by using actual data of the relevant cohort. Standard 7 enrolments were divided by the Standard 1 enrolment seven years earlier.

Source: Author's calculation based on data from various education statistics reports

However, tracing the survival rates of three cohorts of students that entered primary schools in 1978, 1984 and 1991 through the primary school cycle reveals that survival rates tended to decline from one standard to the next, with drastic falls for Standard 7 (see Figure 3.5). This can be explained by high repetition in higher grades over the period. However, survival rates remained high over the period, which further suggests that internal efficiency during this period of primary school expansion was not compromised.

Figure 3.5 Cohort survival by standard for 1978, 1984 and 1991 cohorts



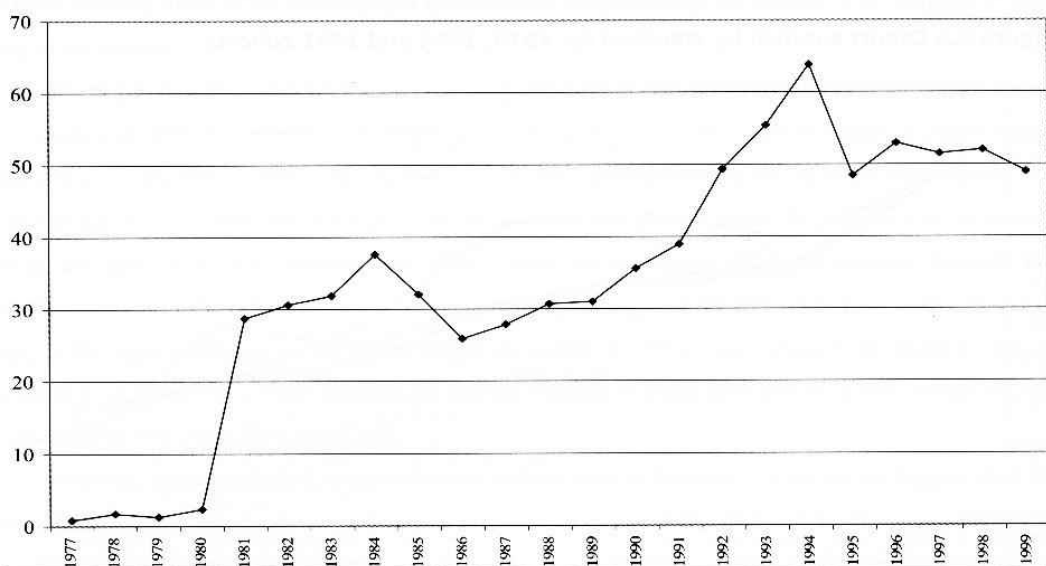
Source: Author's calculation based on data from various education statistics reports

The pattern that emerges from Figure 3.5 reveals the impact of increasing repetition rates since the 1980s on the internal efficiency of the primary education system. The cohort survival rates trended slightly down but with unexpected fluctuations between 1978 and 1980 and could be a reflection of the impact of high drop-outs that resulted in some students re-entering the school system in later years. It is also the case that

some parents who study or work outside the country are usually accompanied by their children who will be studying, and upon their return to the country these children are admitted in upper grades.

The impact on survival rates of the introduction of the Standard 4 Student Attainment Test in 1980, which was intended as a diagnostic test but led to drastic increases in repetition rates of Standard 4 students for that cohort, cannot be discounted. The repetition policy since 1980 was that of automatic promotion from one grade to the next, with repetition allowed only at Standard 4. With automatic promotion, teachers could retain children who showed deficits in attaining basic literacy and numeracy skills only at Standard 4. However, the repetition policy was never fully implemented. Figure 3.6 shows that the proportion of Standard 4 repeaters increased from 0.8 per cent of total primary school repeaters in 1976 to peak at about 64 per cent in 1994, and then declined to about 50 per cent in 1999. The effect of increasing repetition and drop-out rates are that the survival rates from one standard to the next decreased. This tended to reduce the overall internal efficiency in the primary education system, although generally it remained high.

Figure 3.6 Percentage of Standard 4 repeaters to total repeaters



Source: Various education statistics reports

Another indicator used to assess the efficiency of the primary education system during the period is obtained by calculating the average number of pupil years per successful completer for the three cohorts. The measure is defined as:

$$\text{Average number of pupil years per successful completer} = \frac{\text{total number of pupil years used by cohort}}{\text{total number of graduates}}$$

In contrast to Table 3.1, which reveals that survival rates tended to decline slightly, Table 3.2 reveals improvement in efficiency levels as highlighted by the general decline in the average number of years spent by each pupil. This suggests an improvement in the usage of resources or input at the primary education level as measured by the number of years a pupil in each cohort is expected to need to complete the primary school cycle.

Table 3.2 Average number of pupil years per successful completer

| | 1978 | | | 1984 | | | 1991 | | |
|--|------|-------|-------|------|------|-------|------|------|-------|
| | All | Boys | Girls | All | Boys | Girls | All | Boys | Girls |
| Total pupil-years | 6571 | 6279 | 6825 | 6958 | 6878 | 7030 | 6317 | 6186 | 6446 |
| Total graduates | 711 | 598 | 811 | 800 | 769 | 827 | 744 | 683 | 804 |
| Average number of years for graduation | 9.24 | 10.50 | 8.42 | 8.70 | 8.94 | 8.50 | 8.49 | 9.02 | 8.02 |
| Input/output ratio | 1.32 | 1.50 | 1.20 | 1.24 | 1.28 | 1.21 | 1.21 | 1.29 | 1.15 |

Source: Author's calculations using data from various education statistics reports

For all cohorts the average years a pupil spent in the primary school cycle declined from around 9.2 years in 1978 to 8.5 years in 1991. The average number of years of completion for boys tended to be higher than for girls. Changes in repetition rates appear to have had an impact on the average completion rates for girls in 1984 and 1991, as they rose and fell correspondingly.

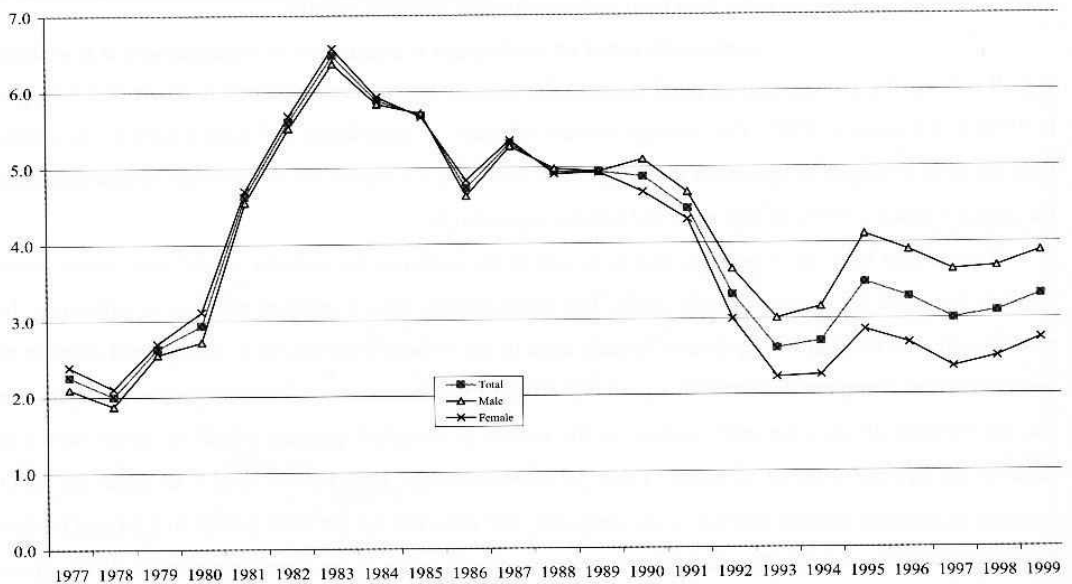
If there had been no repetition and drop-out in the cohorts, the cohorts would have taken seven years to complete the primary school cycle. The input-output ratio is another measure of efficiency. In this measure, the number of pupil-years actually used by the cohort is compared to the optimal number of years needed to complete the cycle. In a perfectly efficient system, the input-output ratio would equal one (i.e. the number of years for each student in the cohort to complete primary would be seven, which is equal to the optimal number of years). Table 3.2 shows that the 1978 cohort used 1.32 times the input required in a system without repetition and drop-out. The ratio fell for the 1984 cohort to 1.24 and further for the 1991 cohort to 1.21. This highlights efficiency gains in usage of resources between the 1978 cohort to the 1991 cohort.

Efficiency gains are also observed for both the boys and girls over the period. However girls' cohorts appeared to have been more efficient over the years. This further supports the finding that the cohorts of girls tended to use fewer years than the cohorts of boys to graduate from primary level. Despite observed efficiency gains, the overall input-output ratios for the 1991 cohort suggests that internal efficiency in the primary school system is a goal that remains to be achieved. The above indicators are affected by the repetition rates, the number of times that each student repeats and the drop-out rate. The input-output ratio is affected by policy decisions about repetition, and is seriously undermined if the system has a high drop-out rate.

At the primary level, extending the trend of repetition rates back to the period of NPE implementation shows a steady increase from around 2 per cent in 1977 to about 7 per cent in 1983, before declining to about 3 per cent in 1999, as shown in Figure 3.7. The average repetition rate for the decade 1981–90 was 5.3 per cent. Figure 3.7 shows that the repetition rates increased dramatically between 1980 and 1983. The introduction of the Standard 4 assessment test in 1980 was a major reason for this increase.

Repetition rates declined after 1983 and by 1993 had fallen to 2.7 per cent. However, they then increased slightly to around 3.3 per cent in 1999. One reason for the increase might be the change in repetition policy that was introduced in 1994. Although the previous policy was automatic promotion with repetition allowed only at Standard 4 it had never been implemented, resulting in repetition occurring in every class. The new policy of assessed progression allowed repetition of up to 12.5 per cent of each class.

Figure 3.7 Primary school repetition rates

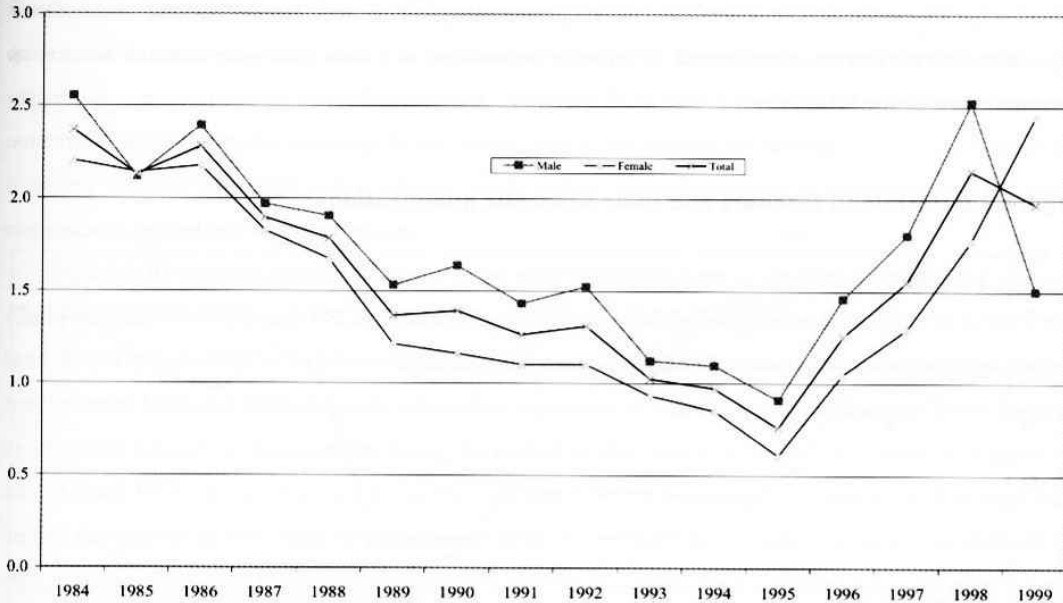


Source: Various education statistics reports

There is an observable divergence in the repetition rates of boys and girls since 1989, with the repetition rates of the girls falling while those of the boys increased. This further supports the observed evidence that girls take fewer years to complete their primary education compared to boys.

The general trend since 1983 was that both repetition and drop-out rates declined until 1994 when they started to increase. However, between 1995 and 1998 drop-out rates increased less than repetition rates, rising from an all-time low of 0.8 per cent in 1995 to 2 per cent in 1998 (Figure 3.8).

Figure 3.8 Primary school drop-out rates



Source: Various education statistics reports

An interesting observation arising from this section is that the introduction of UPE and the expansion of enrolments discussed in previous sections did not lead to major declines in the internal efficiency of the system. The survival rates from standard to standard remained high over the period, although with a tendency to decline due to repetition and drop-outs. However, although the drop-out and repetition rates tended to rise after the introduction of UPE, at an absolute level they remained lower than 10 per cent since the introduction of UPE.

3.4 The impact of increasing enrolments

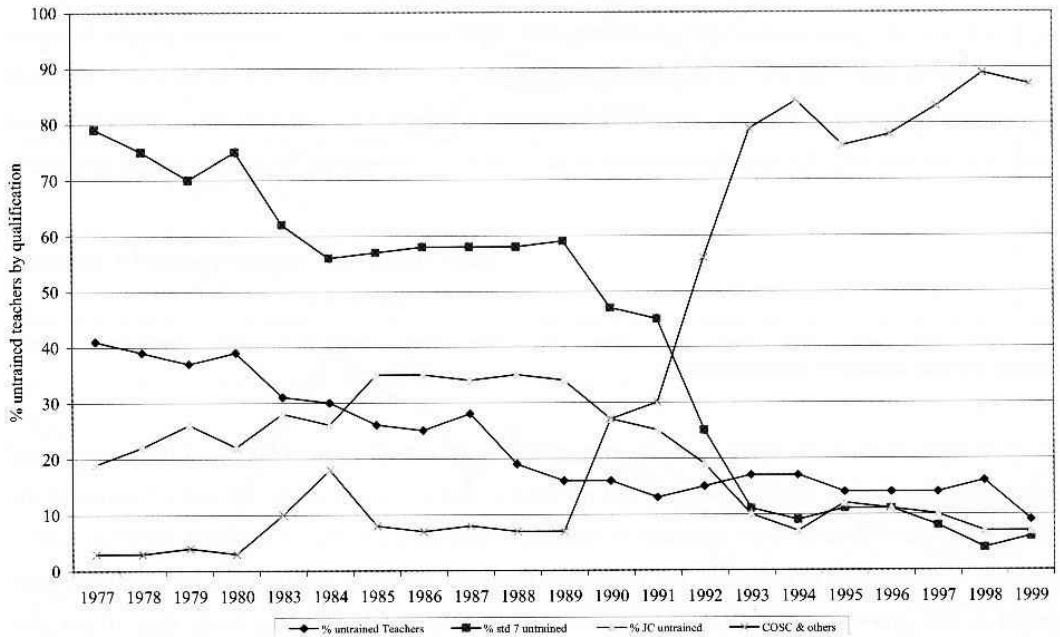
3.4.1 Impact on primary school teachers

Expanded access to primary education occurred in 1973 following the halving of school fees and picked up again in 1980 following the abolition of school fees, with the introduction of UPE. Notwithstanding the immense difficulties associated with quality assessment, there is a broad consensus that trained and motivated teachers are among the elements associated with good quality education.

The primary school teaching workforce in government and aided schools increased from 4,411 in 1977 to 11,067 in 1999, an increase of about 151 per cent. Figure 3.9 raises some interesting quality issues. The proportion of untrained teachers in government and aided primary schools dropped from 41 per cent in 1977 to 9 per cent in 1999. Between 1977 and 1991, the academic qualifications of untrained teachers changed from predominately Primary Certificate holders (seven years of education) to increasingly Junior Certificate (JC) holders (nine years of education). However, Primary Certificate holders remained in the majority during the period. An observable and gradual change in the qualification of untrained primary

teachers occurred in 1990s when the majority of untrained teachers had 12 years of academic training (Cambridge Overseas School Certificate (COSC) and others. This was largely because more senior secondary school leavers were placed in primary schools to do their one year national service, as recommended by the NCE report.

Figure 3.9 Untrained teachers and their academic qualifications



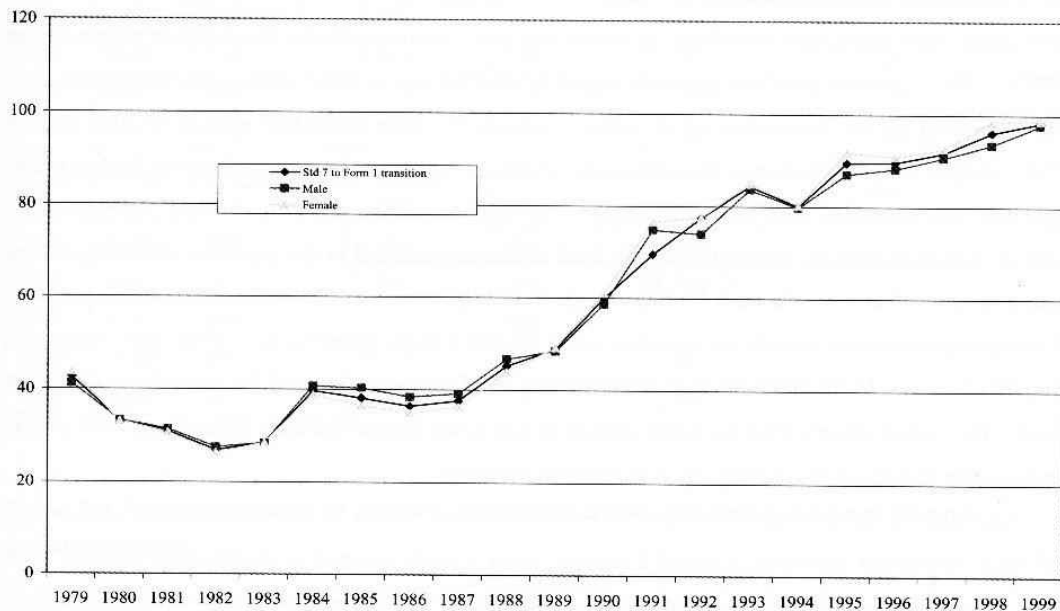
However, in spite of the increasing academic qualification of untrained teachers, the professional qualification of trained primary school teachers remained low. Throughout most of the NPE period (1977–93), the academic and professional qualification profiles of primary school teachers, which are good indicators of the general quality of the primary schools’ teaching force and the country’s commitment to investment in developing primary schools’ teaching force, reveal that over 80 per cent of primary school teaching staff had only Junior Certificate or the Primary School Leaving Examination (PSLE) (MoE 2001). Appendix 2 Table A2.3 shows that the Primary Low (PL), Primary High (PH) and Primary Teaching Certificate (PTC) were held by teachers with only seven years of primary education during the period.

In terms of professional qualifications, in 1999 nearly 9 per cent of primary school teachers had no training and 84 per cent had only the two-year Primary Teaching Certificate, which has now been phased out at the colleges of education. This suggests that in spite of the falling teacher–student ratios observed in Appendix 2 Table A2.1, which reflects improvement in school conditions over the implementation period of the UPE, the standards of the primary school teaching force remained low. This observation was noted by the RNPE of 1994, which recommended that the minimum academic qualification for

admission into the teaching profession be raised from Junior Certificate to Senior Secondary School Certificate (or its equivalent). The overall pattern suggests that the primary education system achieved quantitative expansion over the period of implementing the UPE. The falling pupil–teacher ratio, although suggesting improvement in school conditions, may not have had an impact on improving learning outcomes due to low quality teaching. In actual fact, one of the reasons the second commission was set up to review the first education policy was the public outcry about the quality of education and the poor employment prospects for school leavers.

Figure 3.10 provides further evidence as to why there had been a significant number of primary school teachers who held only PSLE certificates. It shows that progression from Standard 7 to Form 1 fell from 43 per cent in 1979 to its lowest level, 26.8 per cent, in 1982 and remained on average below 38 per cent between 1980 and 1989, a decade of massive expansion in enrolments. This illustrates limited access to secondary education opportunities during the period, as the rapid increase in the number of Standard 7 leavers since 1979 was not matched by increased Form 1 places, but rather remained level. It is clear that during this period of low rates of progression from the primary to secondary level, it was difficult to recruit teachers who had been through secondary school, illustrating how an inadequate education system can create self-reinforcing problems.

Figure 3.10 Progression rates from Primary to Junior Secondary



Source: Various education statistics reports.

The trend was reversed in 1983 when the Economic Committee of Cabinet recommended the expansion of secondary education opportunities. At that time, Form 1 intake had dropped to its lowest level, 26 per cent, meaning that of the 24,823 students who sat for their exams in 1982 only 6,667 could find places in

Form 1. Since 1984, Form 1 intake rates have been rising, reaching the highest level of 98.7 per cent in 1999, meaning that most of the Standard 7 leavers were assured Form 1 places. This is partly explained by the construction of more junior secondary schools during NDPs 7 and 8 and the admission, since the late 1980s, of those with grades C and D in the PSLE who previously were not admitted.

However, efforts to increase the quality of primary teachers by increasing academic entry levels in teacher training colleges, is going to be a daunting task in the long run as HIV/AIDS is increasingly depleting the pool of primary schoolteachers. A study in 2001 on the impact of HIV/AIDS on primary and secondary education in Botswana (MoE 2001), found that the impact of AIDS was higher among primary school teachers than secondary school teachers. Mortality rates were higher among males than females, and higher among primary teachers than secondary teachers. This highlights that AIDS is going to make the financial effort of trying to meet the existing shortfall in qualified teaching staff truly daunting.

3.4.2 Impact on the provision of school infrastructure

Prior to 1973, the provision of primary school facilities was neglected because of the education policy that was then biased towards secondary education. Provision of primary school facilities increased from 1973 with the implementation of the ARDP.

In spite of rapid growth in enrolments, the provision of classroom facilities lagged behind. Table 3.3 shows classroom shortages between 1977 and 1999. It reveals that in 1979, just a year before UPE was introduced, more classrooms were built, as in that year new classrooms built exceeded new classes. From 1980 to 1996, classroom provision generally lagged behind the rate at which classes were increasing. This was aggravated by the conversion of 15 primary schools to junior secondary schools in 1984 (Simon 1995). Despite absolute increases, the percentage of classes without their own classrooms declined until 1985 and then stagnated until 1997. In Chapter 2 we saw that during this period, when NDPs 6 and 7 were in operation, capacity constraints within local authorities resulted in the provision of fewer primary school facilities than were planned. During this period the government shifted its construction priorities to expanding secondary schools, so that they could absorb a larger proportion of those who completed primary education. From 1997 onwards, the provision of classrooms exceeded the number of additional classes. We further observe that the establishment of additional classes has been falling since 1996, which suggests that growth of the primary-age population is declining.

Nonetheless, the shortage of classrooms resulted in some classes being held outdoors, under trees, and often suspended whenever it rained. However, most schools resorted to double-shift teaching, with some classes taught in the morning and others in the afternoon. However, in average terms, percentage decline in classroom shortages resulted in the number of primary pupils per classroom falling from 52 between 1977 and 1981 to 42 between 1993 and 1999, and the percentage of classes double-shifting also declined from 75 per cent to 53 per cent during the two periods (Table 3.4). The falling numbers of pupil-classroom, percentage of classes' double shifting and pupil-teacher ratios bear testimony to the

government's commitment to improve primary school conditions over the period, so as to provide a proper learning environment that could produce better results.

Table 3.3 Number of classes and classrooms, 1976–99

| Year | Classes | Additional classes established | Classrooms | Additional classrooms built | Classroom shortages based on one class per classroom | Classes without own classroom (%) |
|------|---------|--------------------------------|------------|-----------------------------|--|-----------------------------------|
| 1976 | 3,918 | | 2,217 | | 1,701 | 43 |
| 1977 | 4,338 | 420 | 2,523 | 306 | 1,815 | 42 |
| 1978 | 4,536 | 198 | 2,698 | 175 | 1,838 | 41 |
| 1979 | 4,768 | 232 | 3,053 | 355 | 1,715 | 36 |
| 1980 | 5,224 | 456 | 3,441 | 388 | 1,783 | 34 |
| 1981 | 5,473 | 249 | 3,631 | 190 | 1,842 | 34 |
| 1982 | 5,784 | 311 | 4,052 | 421 | 1,732 | 30 |
| 1983 | 6,095 | 311 | 4,473 | 421 | 1,622 | 27 |
| 1984 | 6,428 | 333 | 4,593 | 120 | 1,835 | 29 |
| 1985 | 6,708 | 280 | 4,832 | 239 | 1,876 | 28 |
| 1986 | 7,047 | 339 | 4,932 | 100 | 2,115 | 30 |
| 1987 | 7,373 | 326 | 5,229 | 297 | 2,144 | 29 |
| 1988 | 7,761 | 388 | 5,434 | 205 | 2,327 | 30 |
| 1989 | 8,218 | 457 | 5,775 | 341 | 2,443 | 30 |
| 1990 | 8,542 | 324 | 5,953 | 178 | 2,589 | 30 |
| 1991 | 8,837 | 295 | 6,172 | 219 | 2,665 | 30 |
| 1992 | 9,047 | 210 | 6,347 | 175 | 2,700 | 30 |
| 1993 | 9,353 | 306 | 6,573 | 226 | 2,780 | 30 |
| 1994 | 9,707 | 354 | 6,776 | 203 | 2,931 | 30 |
| 1995 | 10,304 | 597 | 7,177 | 401 | 3,127 | 30 |
| 1996 | 10,611 | 307 | 7,466 | 289 | 3,145 | 30 |
| 1997 | 10,819 | 208 | 7,872 | 406 | 2,947 | 27 |
| 1998 | 11,024 | 205 | 8,117 | 245 | 2,907 | 26 |
| 1999 | 11,110 | 86 | 9,635 | 1,518 | 1,475 | 13 |

Source: Various education statistics reports

Table 3.4 Average number of primary pupils per classroom and number of classes double-shifting

| | 1977–81 | 1983–92 | 1993–9 |
|---------------------------------------|---------|---------|--------|
| Primary pupils per classroom | 52 | 47 | 42 |
| Percentage of classes double-shifting | 75 | 58 | 53 |

Source: Various education statistics reports

3.4.3 Impact on learning outcomes: examination results

Examination papers in Botswana are graded centrally by the Department of Curriculum Development and Evaluation. Prior to 1997, Standard 7 examination results were used for the selection of candidates to junior secondary school, and during this period the grading system used a norm-referenced test, which had cut-off points for each subject based on past research and experience. In 1997, as the examinations were less used for selection purposes as universal access to Form 1 was almost achieved, the MoE changed the PSLE from a norm-referenced to a criterion-referenced test. It is possible that as grading standards changed through time, they may have raised or depressed the number of passes. This is actually observed with the introduction of the criterion-referenced test in 1997 when only 3 per cent of those who sat for PSLE got grade A, against an average of 8 per cent over the past three decades.

Between 1977 and 1999 the number of candidates sitting for Standard 7 examinations grew by 176.9 per cent in the entire country, from a base of 13,733 candidates. During the same period the number of passes rose by 202.9 per cent. However, the pass rate remained almost constant over the period, increasing slightly from 71 per cent in 1977 to 78 per cent in 1999. On average the number of students who got grades A, B and C during the expansion decade 1981–90 was 6 per cent grade A, 27 per cent grade B and 38 per cent grade C, and the percentages increased slightly in the 1990s to 8 per cent, 26 per cent and 40 per cent, respectively. This suggests that to be in conformity with a norm-referenced test, the cut-off points were designed so that of those who sat for their PSLE only 7 per cent got grade A, 27 per cent grade B, 39 per cent grade C and 28 per cent grade D. It is interesting that during the period 1980–3, when the intake rates to Form 1 were declining, the cut-off points for grade A fell to 5 per cent. However, the use of norm-referenced testing makes it impossible to infer anything about the trends of achievement in primary schools over time.

However, the findings of a 1982 survey conducted by the MoE on primary pupils' education achievement showed improvement when compared to the results of a similar survey conducted in 1976 by the NCE. Each survey had five achievement tests composed of 20 questions drawn from the PSLE tests. The comparison of test scores between the two studies revealed increases in three of the tests, no change in one test and decreases in one test, indicating that the quality of primary education offered had improved over the past six years of educational expansion. The reconvened NCE study of 1993, using raw scores on the PSLE for English, science and mathematics for the period 1977–92, found that performance had been declining among all the subjects. Junior secondary school teachers interviewed in the commission report were also unanimous in observing that the quality of Standard 7 leavers entering Form 1 had declined tremendously in recent years. This suggests that despite efforts to improve primary school qualitative measures such as pupil–teacher ratios and the academic profile of untrained teachers since the introduction of UPE the general quality of primary education remained low.

3.4.4 Summary of the analysis of impact

Overall the gradual expansion of enrolments appears not to have had a negative impact on internal efficiency, with some marked improvements in levels of teacher qualifications as well as provision of

infrastructure. It further reveals that enrolment expansion has been undertaken at the same time as a concerted effort to improve physical infrastructure and teacher quality. However, there are challenges ahead, especially with the training of more qualified teachers in the presence of HIV/AIDS. Furthermore, as much as some areas have shown improvement, more effort remains to be made in the provision of school facilities and improvement of the quality of primary education.

4 Trends in public education expenditure

As highlighted in Chapter 2, public investment in education has been recognised since the first NDP as one of the means of promoting and achieving the national principles of unity, democracy, economic development and self-reliance. In many government statements it was reiterated as the most cost-effective means of producing the skilled manpower needed to boost the country's economic growth and in the process reduce poverty, as well as achieving national education goals of universal access to education opportunities emphasised by the NPE (1977).

In this section we explore how public investment in education rose to the challenge of achieving the goals of universal and free primary education. We do that by examining the actual level of spending on education by three variables: the share of GDP accounted for by government revenue; the percentage share of that revenue allocated to education; and the share of the education budget allocated to primary education. Trends in these variables provide an idea of the relationship between public education expenditure and the overall size of the government sector. Here we will be trying to answer questions such as: Did changes in the overall size of the budget affect education? When budget deficits have been controlled/reduced has this had a negative impact on education spending? And did the increases in public spending on education during the drive for UPE have any macroeconomic impact?

The level of the government's commitment in each of these areas will reflect political judgements about national priorities, and the commitment of government towards achieving universal education in Botswana. To reflect this we analyse both the intersectoral allocations of public expenditure and the intrasectoral allocations within education. Intersectoral allocations refer to the composition of the total government budget between different sectors. An analysis of intersectoral allocations allows us to assess the priority of education compared to other sectors. Intrasectoral allocations refer to the composition of the total education budget between different sub-sectors (e.g. primary, secondary, tertiary, other). Again, analysis at this level allows us to assess the priority given to primary education has compared to other sub-sectors. Specific and similar questions that will be addressed with regards to intersectoral and intrasectoral allocations and the drive for UPE are: Was the drive for UPE associated with major shifts in the allocation of public expenditure? How has the priority given to education changed over time? Have changes in the priority given to education (measured by the proportion of expenditure going to a particular sector) affected any other sectors (i.e. have changes in education spending come about through reallocations from other sectors or from increases in the overall size of government expenditure)? If changes have come about through reallocations from other sectors, which are these sectors (e.g. defence, health, infrastructure, etc.)? And have changes in other sectors resulted in real declines in these sectors?

We will further break down the primary development and recurrent expenditure in detail. The development expenditure will be disaggregated between internal and external sources. The recurrent expenditure analysis will be concerned with how resources are allocated between wages and teachers' salaries, and operating and maintenance functions, etc. All expenditure tables in this section are expressed in constant 1995 prices. Tables that exhibit different periods are as a result of lack of data.

4.1 Overview of public expenditure

To appreciate the experience of Botswana it is worth starting by discussing the challenges arising from the limited resources the country faced at independence, and the difficulties they imposed on policy-makers. At independence in 1966, Botswana's per capita income was \$80 per annum, placing the country among the least developed (Harvey 1981). Government revenues could only cover half of the recurrent expenditure and therefore the level of development spending was low. More than half of the budget was provided in the form of grants-in-aid from Britain. In the first five years of independence, about 57 per cent of development expenditure was financed from Britain (Stevens 1981).

Making the country financially viable was, therefore, a top priority for the government. In the first Transitional Plan and successive National Development Plans, the government laid down conditions to attain financial independence such as ending recurrent budget grants-in-aid from Britain, diversifying sources of aid to reduce dependence on one donor, and attracting private foreign investment in the mining sector.

By 1973, Botswana, thanks to a renegotiated customs union revenue-sharing agreement and mining developments, no longer required grants-in-aid from Britain to balance the recurrent budget. Subsequently, all aid resources were devoted to development activities. In the same year, the number of donors providing assistance to the development budget increased to about seven, and in 1977 to ten (Stevens 1981). The government's policy to encourage private investment, especially in the mining industry, started to pay off in the 1970s in the form of an increased tax base that increased the government's capacity to raise revenues to finance a wide range of economic and social development needs.

According to Table 4.1, total revenue as a share of GDP increased rapidly from an average of 39 per cent from 1977 to 1981, to 55 per cent from 1982 to 1986 and to over 60 per cent from 1987 to 1991, before declining to about 50 per cent in the 1990s. The bulk of the revenue came from taxes, of which mineral revenues contributed the largest share. The non-tax revenues started to grow in the 1980s and substituted for the declining foreign aid. Foreign aid had been another important source of revenue in the 1970s, but had since declined as a share of total revenue from an average of 6 per cent during the period 1977–81 to under one per cent between 1997 and 1999. This was largely because most donors had pulled out of Botswana over the period, as they considered the country had become a middle-income country that no longer needed aid.

The diversified revenue base allowed government to finance its total expenditure. The annual average growth rate of actual public spending was 16.2 per cent in 1977–81, slowed to 7.8 per cent between 1982 and 1986, largely due to a decline in mineral revenues caused by the recession experienced in 1981, and stabilised at around 7.5 per cent between 1987 and 1999 due to changes in the world economy. The vice-president actually highlighted the government's concern with changes in the world economy that affected the country's budget position, when he presented his 1982/3 budget, in which he announced that due to the deterioration in the world economy, the Ministry of Finance and Development Planning (MFDP)

would only warrant authority to spend 80 per cent of the amounts given in the estimates (Raphaeli *et al.* 1984).

Table 4.1 Composition of the public budget

| | 1977-81 | 1982-6 | 1987-91 | 1992-6 | 1997-9 |
|--|---------|--------|---------|--------|--------|
| Total revenue and grants (% GDP) | 38.9 | 55.2 | 60.4 | 50.3 | 46.7 |
| of which (%): | | | | | |
| Tax revenue | 28.1 | 41.7 | 47.0 | 36.6 | 37.2 |
| Non-tax revenue | 5.2 | 10.0 | 11.3 | 12.7 | 8.8 |
| Grants | 5.6 | 3.5 | 2.1 | 1.0 | 0.7 |
| Total expenditure (% GDP) | 39.2 | 42.2 | 45.9 | 43.6 | 46.2 |
| of which (%): | | | | | |
| Recurrent expenditure | 22.2 | 24.0 | 23.4 | 27.7 | 30.3 |
| Development expenditure | 15.8 | 15.1 | 18.0 | 14.7 | 15.9 |
| Other expenditure | 1.2 | 3.1 | 4.5 | 1.2 | 0.0 |
| Budget surplus/deficit (% GDP) | -0.3 | 13.0 | 14.5 | 6.7 | 0.5 |
| End of period real government expenditure (constant 1995 Pula millions)* | 1478 | 2533 | 4804 | 5554 | 8004 |
| Average annual real growth in government expenditure (%) | 16.2 | 7.8 | 9.4 | 1.9 | 18.4 |
| Average annual real growth in GDP (%) | 13.2 | 10.6 | 13.0 | 3.1 | 6.1 |
| Total debt as share of GDP (%) | 19.7 | 17.3 | 12.1 | 11.3 | 10.4 |

* End of period real government expenditure refers to the final year in each period

Source: Government Financial Statements, Tables and Estimates of the Consolidated and Development Fund Revenues

The high growth in actual public expenditure in the late 1970s was caused by the provision of infrastructure throughout the entire country, including building primary schools. Besides the slow average annual growth in public spending during the 1982-6 period, the share of public spending to GDP steadily increased from 39 per cent for the 1977-81 period to 46 per cent in the 1997-9 period. The expenditure share to GDP tended to be lower than the revenue share to GDP, which suggests that public spending was dictated by the availability of resources, and was conducted in a manner to avoid large budget deficits. In other words, the budgets since the mid-1980s were revenue-driven rather than expenditure-driven. In actual fact, the annual share of budget deficit to GDP declined over the period. In the period 1977-81 the deficit was on average 0.3 per cent. However, the budget deficit in the 1981/2 financial year was 2.14 per cent to GDP, and that scared the government into reigning in spending over a number of years, as reflected by a large and uninterrupted budget surplus from 1983 to 1996. As a consequence, the declining aid funds did not oblige the government to resort to debt financing, as the debt-GDP ratio declined on average from 20 per cent from 1977-81 to about 10 per cent in 1997-9. Furthermore, the switch by donors from making grants to offering concessional loans helped the government to avoid high interest bearing loans that could have worsened the debt situation.

From the above it can be concluded that Botswana's aggregate level of spending had since the early 1980s been consistent with the country's macroeconomic framework, as the budget deficit was kept low.

In the next section we explore how overall government spending may have affected the performance of the education system, especially the attainment of UPE, and establish how government prioritised different sectors of the economy in terms of resource allocations, *vis-à-vis* the education sector, since 1977. We start by exploring the functional composition of expenditures towards economic, social and general government services.

4.2 Composition of public intersectoral expenditure

It is often the case that developing countries are found to be spending heavily in areas that generate few social benefits, such as military expenditure, and spend too little in areas with far greater social benefits, such as the provision of basic education and health services. In this section, we analyse real expenditure allocations across sectors, to shed light on the government's priorities and commitments to the education sector compared to other sectors since 1977. In the pairs of Tables 4.2 and 4.3, Tables 4.4 and 4.5 and Tables 4.6 and 4.7 the average percentage shares of real government expenditure in different sectors of the economy are shown.

Botswana's commitment to social development is reflected in the financial resources allocated to different sectors of the economy over the years, as both a percentage share of real GDP and total real expenditure. In Tables 4.2 and 4.3, economic services, public services and education, in that order, were the three top sectors that consistently appropriated the largest percentage shares of real GDP over the period 1977–99. In average terms during the period 1977–81, Botswana spent annually a larger percentage of GDP on economic services, about 12.5 per cent, and 7.9 per cent on public services, 7.5 per cent on education, 3.1 per cent on defence, and 2 per cent on health. The education share of GDP in Botswana is much higher than the regional average, which is in the range of 4–5 per cent (Colclough and Al-Samarrai 2000). The three top sectors also appropriated the highest percentage shares of total expenditure over the period. In all sectors, except for the economic services and unallocated expenditures,¹⁶ percentage shares of expenditure as a share of GDP and total real expenditure trended down between 1982 and 1986, reflecting the government's reigning in of expenditure following the recession of 1981.

Table 4.1 shows that the average annual share of total public expenditure to GDP decreased during this period, which suggests that the sectoral declines were caused by the government cutting on spending across sectors since 1982. However, diversion of funds to other sectors also occurred, and the economic services sector and the unallocated expenditure sector, under which the Financial Assistance Policy (FAP) was introduced in 1982, experienced an increase in their shares compared to education and other sectors.

¹⁶ Unallocated expenditure is funds that covers the following functions: payment of public debt interest (not principal); to finance councils (i.e. the revenue support grant that government gives councils each year); and to provide funds for the Financial Assistance Policy (FAP) scheme. The funds grew after 1982, as that is the year the FAP scheme was introduced.

But the high sectoral percentage shares of expenditure in the 1977–81 period were largely explained by the government’s large-scale provision of infrastructure that was largely non-existent at independence.

Table 4.2 Sectoral expenditure as a percentage of GDP¹⁷

| | 1977–81 | 1982–6 | 1987–91 | 1992–6 | 1997–9 |
|---|---------|--------|---------|--------|--------|
| General public service | 7.9 | 7.9 | 7.5 | 7.8 | 8.7 |
| Defence | 3.1 | 2.6 | 4.8 | 4.2 | 3.7 |
| Education | 7.5 | 6.8 | 7.6 | 9.1 | 10.9 |
| Health | 2.0 | 2.0 | 2.1 | 2.1 | 2.4 |
| Food and social welfare programmes | 0.2 | 1.1 | 0.6 | 0.9 | 1.4 |
| Housing, urban and regional development | 3.4 | 3.2 | 4.8 | 4.5 | 2.8 |
| Other community and social services | 0.5 | 0.6 | 0.5 | 0.7 | 1.3 |
| Economic services | 12.5 | 14.5 | 13.9 | 9.9 | 9.2 |
| Unallocated expenditure | 2.1 | 3.7 | 3.9 | 4.0 | 4.2 |
| Total | 39.2 | 42.3 | 45.9 | 43.2 | 44.7 |

Source: Government Financial Statements, Tables and Estimates of the Consolidated and Development Fund Revenues, and Estimates of Expenditure from the Consolidated and Development Funds

Table 4.3 Sectoral expenditure as a percentage of total government expenditure

| | 1977–81 | 1982–6 | 1987–91 | 1992–6 | 1997–9 |
|---|---------|--------|---------|--------|--------|
| General public service | 20.2 | 18.8 | 16.4 | 18.3 | 19.5 |
| Defence | 7.7 | 6.1 | 10.4 | 9.7 | 8.4 |
| Education | 19.1 | 16.0 | 16.6 | 21.2 | 24.5 |
| Health | 5.1 | 4.6 | 4.6 | 4.8 | 5.4 |
| Food and social welfare programmes | 0.5 | 2.6 | 1.4 | 2.1 | 3.1 |
| Housing, urban and regional development | 8.7 | 7.5 | 10.6 | 10.2 | 6.2 |
| Other community and social services | 1.3 | 1.3 | 1.2 | 1.7 | 2.9 |
| Economic services | 31.8 | 34.3 | 30.3 | 22.8 | 20.7 |
| Unallocated expenditure | 5.5 | 8.7 | 8.6 | 9.4 | 9.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Government Financial Statements, Tables and Estimates of the Consolidated and Development Fund Revenues, and Estimates of Expenditure from the Consolidated and Development Funds

However, education expenditure as an annual average percentage share of both GDP and total public expenditure has been increasing since the late 1980s, and had actually surpassed the public expenditure shares of the public and economic services sectors in 1997–9 (Tables 4.2 and 4.3). During the late 1980s and early 1990s, the expansion in secondary, especially junior secondary, school construction, accounted for the large increase in education expenditure. In the late 1990s, the construction of four senior

¹⁷ Total government expenditure as a percentage of GDP does not match exactly with the figures shown in Table 4.1. Unfortunately, data obtained on sectoral information did not sum to exactly the same total in all years.

secondary schools and the expansion of the University of Botswana accounted for the large increase in education expenditure. The education sector's annual average share of real GDP and real total expenditure averaged 10.9 per cent and 25 per cent, respectively, in the 1997–99 period. This makes education the sector appropriating the largest share of public spending, thus illustrating the government's highest commitment to the sector.

Researchers have observed that at the international level, most of the developing countries that have achieved rapid progress towards universal basic education from a weak starting point, like Botswana, have spent 5–7 per cent of GDP on education (Mehrotra 1997; Watkins 2000). Measured against this yardstick, Table 4.2 shows that Botswana consistently invested a share of GDP on education that was well above the international targets. Yet Colclough and Al-Samarrai (2000) found that Botswana not only committed a sizeable amount of its GDP to education, but also had already achieved UPE in 1990¹⁸ at relatively low costs compared to its regional neighbours. Their study found that by 1990 Botswana allocated 2.6 per cent of its GNP to primary education, which was above the sub-Saharan average of 1.8 per cent, but below that of Zimbabwe, which achieved UPE by allocating 5.7 per cent of its GNP. This suggests that Botswana achieved high enrolments during this period by committing a relatively small percentage of its GNP to primary education, thus achieving UPE at a lower cost than Zimbabwe.

Although the national defence force was founded in 1977, its appropriation as a percentage share of GDP (3.1 per cent) and expenditure (7.7 per cent) was less than that of education but more than the share of health, and remained so over the years. It can be argued that defence expenditure is a waste of resources, especially given that it remained consistently higher than expenditure on health. However, in the case of Botswana this was necessitated by the instability in the region. Besides, the negative effects of the relatively modest defence expenditure were offset by high economic growth rates (see Table 4.1). However, one way of assessing the opportunity costs of military spending is to measure it against government social sector expenditure. As shown in Table 4.3 military expenditure has been consistently lower than expenditure on education but higher than total spending on health. The cumulative effect of such prioritisation could in part explain the current shortages of trained and motivated health professionals, at a time when the country needs an efficient health system to address the challenges of AIDS.

Tables 4.4, 4.5, 4.6 and 4.7 analyse expenditure data, disaggregated into recurrent (Tables 4.4 and 4.5) and development (Tables 4.6 and 4.7). The average sectoral percentage shares of recurrent expenditure were 31.4 per cent for public services, 22.6 per cent for education and 18 per cent for economic services during the first five years after 1977 (see Table 4.5). However, reallocation of resources to other sectors appears to have occurred between 1982 and 1999, as observed by declining annual real shares of recurrent expenditure going to the public and economic service sectors, compared to increasing real recurrent expenditure shares going to the education, defence, unallocated expenditure and housing sectors.

¹⁸ The Colclough and Al-Samarrai study defines attainment of UPE as achieving a GER of 100, which differs from the definition of UPE in Botswana, which is adopted in this study, that of achieving an NER of 100.

Table 4.4 Sectoral recurrent expenditure as a percentage of GDP

| | 1977-81 | 1982-6 | 1987-91 | 1992-6 | 1997-9 |
|---|---------|--------|---------|--------|--------|
| General public service | 7.0 | 7.0 | 6.4 | 6.8 | 6.8 |
| Defence | 1.3 | 1.6 | 1.7 | 2.4 | 2.7 |
| Education | 5.0 | 5.0 | 5.0 | 6.6 | 7.7 |
| Health | 1.5 | 1.4 | 1.3 | 1.7 | 1.9 |
| Food and social welfare programmes | 0.1 | 0.2 | 0.2 | 0.1 | 1.0 |
| Housing, urban and regional development | 0.9 | 0.9 | 0.9 | 1.9 | 1.9 |
| Other community and social services | 0.3 | 0.4 | 0.4 | 0.6 | 0.6 |
| Economic services | 4.0 | 4.2 | 3.8 | 3.7 | 3.5 |
| Unallocated expenditure | 2.1 | 3.7 | 3.9 | 4.0 | 4.2 |
| Total | 22.2 | 24.3 | 23.7 | 27.7 | 30.3 |

Source: Government Financial Statements, Tables and Estimates of the Consolidated and Development Fund Revenues, and Estimates of Expenditure from the Consolidated and Development Funds

Table 4.5 Sectoral recurrent expenditure as a percentage of total government recurrent expenditure

| | 1977-81 | 1982-6 | 1987-91 | 1992-6 | 1997-9 |
|---|---------|--------|---------|--------|--------|
| General public service | 31.4 | 28.9 | 27.0 | 24.4 | 22.6 |
| Defence | 5.7 | 6.4 | 7.3 | 8.6 | 8.8 |
| Education | 22.6 | 20.7 | 21.3 | 23.8 | 25.5 |
| Health | 6.6 | 5.7 | 5.4 | 6.1 | 6.2 |
| Food and social welfare programmes | 0.5 | 1.0 | 0.8 | 0.5 | 3.2 |
| Housing, urban and regional development | 4.1 | 3.5 | 4.0 | 6.7 | 6.2 |
| Other community and social services | 1.5 | 1.5 | 1.8 | 2.1 | 2.1 |
| Economic services | 18.0 | 17.3 | 15.9 | 13.3 | 11.4 |
| Unallocated expenditure | 9.6 | 15.0 | 16.6 | 14.5 | 13.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Government Financial Statements, Tables and Estimates of the Consolidated and Development Fund Revenues, and Estimates of Expenditure from the Consolidated and Development Funds

On the development expenditure side, the annual real average sectoral shares of development expenditure were 50 per cent for economic services, 14.8 per cent for housing, 14.6 per cent for education and 10.4 per cent for defence during the first five years after 1977 (see Table 4.7). The economic services and defence shares of GDP were sustained up until the early 1990s, and started declining in the mid-1990s. Defence attracted a large share of the development budget in the 1977-81 period, because it had just been established. The provision for infrastructure, such as roads and development of new mines, accounted for the bulk of the total development budget between 1977 and 1986. The education share of the total development budget has been increasing over the last two decades. Provision of school infrastructure also received a significant share of the development budget, followed by defence.

Table 4.6 Sectoral development and other expenditure as a percentage of GDP

| | 1977-81 | 1982-6 | 1987-91 | 1992-6 | 1997-9 |
|---|---------|--------|---------|--------|--------|
| General public service | 0.9 | 0.9 | 1.1 | 1.1 | 1.9 |
| Defence | 1.8 | 1.0 | 3.1 | 1.8 | 1.0 |
| Education | 2.5 | 1.7 | 2.6 | 2.5 | 3.2 |
| Health | 0.5 | 0.6 | 0.9 | 0.4 | 0.5 |
| Food and social welfare programmes | 0.1 | 0.9 | 0.5 | 0.8 | 0.4 |
| Housing, urban and regional development | 2.5 | 2.3 | 3.9 | 2.6 | 0.9 |
| Other community and social services | 0.2 | 0.2 | 0.1 | 0.1 | 0.7 |
| Economic services | 8.5 | 10.3 | 10.1 | 6.2 | 5.7 |
| Unallocated expenditure | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 17.0 | 17.9 | 22.2 | 15.5 | 14.3 |

Source: Government Financial Statements, Tables and Estimates of the Consolidated and Development Fund Revenues, and Estimates of Expenditure from the Consolidated and Development Funds

Table 4.7 Sectoral development and other expenditure as a percentage of total development and other expenditure

| | 1977-81 | 1982-6 | 1987-91 | 1992-6 | 1997-9 |
|---|---------|--------|---------|--------|--------|
| General public service | 5.5 | 5.1 | 5.0 | 7.4 | 13.1 |
| Defence | 10.4 | 5.6 | 13.8 | 11.6 | 7.4 |
| Education | 14.6 | 9.6 | 11.6 | 16.9 | 22.2 |
| Health | 3.2 | 3.2 | 3.8 | 2.5 | 3.6 |
| Food and social welfare programmes | 0.6 | 4.9 | 2.0 | 4.9 | 2.9 |
| Housing, urban and regional development | 14.8 | 12.9 | 17.7 | 15.6 | 6.3 |
| Other community and social services | 1.0 | 1.1 | 0.5 | 0.9 | 4.6 |
| Economic services | 50.0 | 57.5 | 45.6 | 40.2 | 39.9 |
| Unallocated expenditure | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Government Financial Statements, Tables and Estimates of the Consolidated and Development Fund Revenues, and Estimates of Expenditure from the Consolidated and Development Funds

The sectoral development expenditure allocation in Table 4.7 suggests that the economic services sector was allocated the largest share of the development budget. In the 1970s and 1980s the development of mines and the construction of roads and dams accounted for the largest share of the economic services development budget allocations. The education sector development budget share has increased over the years, and since the 1990s has been the second largest after the economic services sector. This suggests that education had been top of the government's priority list and remains so, as it continues to account for the second largest share of total public expenditure. It further shows that the downward adjustment in expenditures that resulted from the recession of 1981-2 did not have a prolonged impact in education development expenditure. This is because a significant share of the development budget had been supported by foreign aid before it trended down over the past two decades. The use of aid tended to

offset the use of domestic funds. However, it is important to establish how the education expenditure was allocated across education levels, and how that helped achieve UPE. To answer these questions, we analyse intrasectoral education expenditures, or expenditures in education, by instruction level.

4.3 Composition of public education intrasectoral expenditure

At any given level of overall education spending, the amount spent on primary education will be influenced by the pattern of expenditure across different levels of the education system. The intrasectoral allocation of education spending over the years has important implications for the achievement of UPE. A disaggregation of public expenditure in education by instruction level from 1977 to 1999 is shown in Tables 4.8 and 4.9 (recurrent expenditure) and Tables 4.12 and 4.13 (development expenditure). The functional composition of education expenditure is based upon the direction of the function towards which the expenditure is directed. In this case, different levels and types of instruction – primary, secondary and tertiary, vocational/technical and post-secondary (education spending for students studying abroad) – are taken as the major programme for analysis. From the analysis it appears that the composition of education expenditure has been skewed towards primary education since 1977, and as government revenues grew, so did primary education expenditure.

In Table 4.8 we present the average annual sub-sectoral percentage shares of GDP and of the education recurrent budget. Primary education accounted for the largest share of the education recurrent budget, followed by secondary education and the university and teacher training being the third highest spender. However, expansion in secondary education in the mid-1980s resulted in real increases in the sector's share of the recurrent budget.

During the first five years (1977–81), a period within which UPE was introduced, the annual average real recurrent budget allocated to primary education accounted on average for about 60 per cent of the total education recurrent budget. During this period school fees were abolished, which added to the public costs of providing primary education. This suggests that the introduction of UPE in 1980 was accompanied by a sizeable share of resources committed to primary education, which between 1988 and 1998 on average accounted for at least 3 per cent of real GDP. The annual average share declined to 51.7 per cent in the next five years as a result of the self-initiated stabilisation process to control spending following the recession of 1981–2, and the conversion of some primary schools to junior secondary schools in 1984. From the mid-1980s, the government shifted its priorities to expanding secondary education. The conversion of 15 primary schools to junior secondary schools had a significant impact on the decline of the primary recurrent expenditure, and worsened the qualitative aspects of primary education. Classroom shortages in primary education slightly increased and it explains the slight increase in pupil–teacher ratios that occurred between 1985 and 1989 (see Appendix 2 Table A2.1). It further explains the increase in recurrent expenditure share going to secondary schools since 1984. In the next five years (1987–91), the share of primary to total recurrent budget averaged annually 52.1 per cent and in the 1990s it hovered around 40 per cent.

Table 4.8 Education sub-sectoral recurrent expenditure as a percentage of GDP and of total education recurrent expenditure

| | 1977-81 | 1982-86 | 1987-91 | 1992-96 | 1997-99 |
|--|---------|---------|---------|---------|---------|
| Sub-sectoral expenditure (% of GDP) | | | | | |
| General administration | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 |
| Primary | 2.9 | 2.6 | 2.6 | 2.9 | 3.2 |
| Secondary | 0.6 | 0.8 | 0.9 | 1.4 | 1.5 |
| Universities and teachers' colleges | 0.7 | 0.6 | 0.6 | 1.1 | 1.2 |
| Post-secondary | 0.3 | 0.5 | 0.4 | 0.5 | 1.2 |
| Vocational and other | 0.4 | 0.5 | 0.4 | 0.5 | 0.5 |
| Total | 5.0 | 5.0 | 5.0 | 6.6 | 7.7 |
| Sub-sectoral expenditure (% total recurrent) | | | | | |
| General administration | 2.0 | 2.8 | 3.4 | 3.0 | 2.4 |
| Primary | 57.8 | 51.7 | 52.1 | 44.1 | 40.9 |
| Secondary | 13.0 | 16.0 | 18.0 | 21.1 | 19.9 |
| Universities and teachers' colleges | 13.7 | 11.0 | 12.0 | 17.3 | 15.0 |
| Post-secondary | 6.3 | 9.5 | 7.3 | 7.5 | 15.6 |
| Vocational and other | 7.3 | 9.0 | 7.2 | 7.0 | 6.2 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Government Financial Statements, Tables and Estimates of the Consolidated and Development Fund Revenues, and Estimates of Expenditure from the Consolidated and Development Funds

Table 4.9 Education sub-sectoral recurrent expenditure (Pula millions, 1995 constant prices)

| | 1977 | 1985 | 1990 | 1995 | 1999 |
|-------------------------------------|-------|-------|-------|-------|--------|
| General administration | 1.4 | 8.4 | 16.3 | 21.8 | 31.8 |
| Primary | 52.2 | 138.9 | 245.5 | 358.4 | 528.3 |
| Secondary | 23.8 | 51.7 | 99.4 | 182.4 | 245.9 |
| Universities and teachers' colleges | 15.5 | 24.7 | 58.2 | 143.6 | 177.1 |
| Post-secondary | 7.4 | 29.8 | 32.8 | 67.1 | 216.5 |
| Vocational and other | 5.6 | 22.4 | 34.8 | 63.5 | 83.6 |
| Total | 105.9 | 275.9 | 487.1 | 836.8 | 1283.1 |

The share of secondary education in total recurrent expenditure increased from the late 1980s through the 1990s, due to expansion of both junior and senior secondary schools to accommodate increased demand for secondary school places by primary leaving pupils (see Chapter 3). In the 1990s, the government directly financed primary and secondary schools (as fees to secondary schools were abolished in 1988) and supplied teachers and recurrent funding support to government-aided primary and junior secondary schools in order to raise standards of teaching to be more comparable with government schools. The government also directly funded tertiary-level education, vocational training and teacher training. Most barriers to access were removed by making education free for all citizens up to tertiary level. The

government also funded an increased number of students studying in universities abroad, as reflected by an increasing share of post-secondary allocations in the recurrent budget, which increased well above the allocation for universities and teachers' colleges in the 1997–9 period.

However, ensuring adequacy of resources alone is not enough. The major issue is ensuring efficient use of such resources. In Tables 4.10 and 4.11 sectoral recurrent costs are analysed to reflect how efficiently resources were allocated across education sectors, and especially to primary education to achieve UPE. According to Table 4.10, the Government of Botswana has all along been spending more on teacher training and tertiary education than on primary education. For example, in 1978, spending per primary student was P723 while spending per teacher trained was P8,808 and per university student P20,627. By 1998, the figures had increased to P1,564 on primary, P11,690 on teacher training and P15,438 on university education. An observed decline in recurrent cost per student at the university since 1996 can be explained by increased enrolment by the institution.

Table 4.10 Recurrent expenditure per student (Pula)

| | 1978 | 1980 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Primary | 723 | 572 | 1,083 | 1,190 | 1,249 | 1,247 | 1,564 | 1,718 |
| Secondary | 1,235 | 1,487 | 1,799 | 1,768 | 1,867 | 1,748 | 1,573 | 1,660 |
| Vocational education and training | 4,348 | 8,346 | 11,960 | 7,844 | 9,559 | 6,614 | 7,084 | 8,695 |
| Teacher training | 8,808 | 8,708 | 9,904 | 10,886 | 11,945 | 10,992 | 11,690 | 11,584 |
| University | 20,627 | 17,497 | 20,252 | 21,215 | 20,200 | 16,998 | 15,438 | 15,077 |

Source: Government Estimates of Expenditure from the Consolidated and Development Funds, and Education Statistics Reports

According to Table 4.9, primary education spending accounts for the largest share of the recurrent education budget; and in Table 4.10, the recurrent costs data per student indicates that primary education was until 1998 the most economical level of education offered in Botswana.¹⁹ This shows that the drive for UPE, in the form of expansion in primary enrolments, has generally been caused by a strong commitment by government to finance primary education and at relatively low unit costs of schooling. The unit cost of a primary student as a percentage of GNP per capita was found in 1990 to be lower in Botswana than in some of its regional neighbours and in sub-Saharan Africa (Colclough and Al-Samarrai 2000). The unit cost in Botswana was 9 per cent, compared to 10 per cent in Mauritius, 21 per cent in Zimbabwe and 12 per cent in sub-Saharan Africa, providing further evidence to suggest that Botswana's primary education was economically provided during its expansion towards UPE.

The expansion in secondary education intakes from primary level, since the mid-1980s, resulted in the decline of the recurrent cost per student at secondary level to below that at primary level since 1998.

¹⁹ Primary education tended to the educational needs of over 80 per cent of the total school population from primary to university levels in the 1980s, and by 1995 to 71 per cent, declining to 61 per cent in 1999. The decline was a result of the rapid expansion in secondary school enrolment, as well as at other levels.

This is explained by the massive expansion of secondary schools, especially junior secondary schools, since the mid-1980s and the change of policy to admit all primary school leavers into junior secondary schools in 1992. However the secondary enrolment grew to about half of that of primary, while secondary teachers number about a third of those in primary schools. Teacher training and university education are the most expensive. Small teacher training colleges geo-politically scattered around the country, with high recurrent expenditure needs, would seem to explain the expensive nature of training teachers in Botswana.

Table 4.11 Education total and unit recurrent expenditures, 1980, 1995 and 1999 (Pula, constant 1995 prices)

| | Primary | Secondary | Vocational | Teacher training | University |
|-----------------------------|---------|-----------|------------|------------------|------------|
| 1980 | | | | | |
| Total recurrent expenditure | 97 | 20 | 15 | 7 | 16 |
| Enrolment | 169,363 | 13,424 | 1,800 | 844 | 928 |
| Per student cost | 572 | 1,487 | 8,346 | 8,708 | 17,497 |
| Primary student equivalence | 1.00 | 2.60 | 14.59 | 15.23 | 30.59 |
| 1995 | | | | | |
| Total recurrent expenditure | 358 | 182 | 64 | 27 | 117 |
| Enrolment | 301,240 | 103,159 | 8,095 | 2,460 | 5,501 |
| Per student cost | 1,190 | 1,768 | 7,844 | 10,886 | 21,215 |
| Primary student equivalence | 1.00 | 1.49 | 6.59 | 9.15 | 17.83 |
| 1999 | | | | | |
| Total recurrent expenditure | 528 | 246 | 84 | 32 | 145 |
| Enrolment | 307457 | 148195 | 9609 | 2790 | 9595 |
| Per student cost | 1,718 | 1,660 | 8,695 | 11,584 | 15,077 |
| Primary student equivalence | 1.00 | 0.97 | 5.06 | 6.74 | 8.77 |

Source: Government Estimates of Expenditure from the Consolidated and Development Funds, and Education Statistics Reports

Another observation about the evolution of educational recurrent spending is that it has become more egalitarian in per capita terms across different schooling categories. In 1980, the amount of recurrent spending for a university student was 31 times the amount spent for a primary student. This ratio fell to around 18:1 in 1995, and further declined to about 9:1 in 1999. National recurrent spending on other levels compared to primary indicates a similar decline, even though the absolute amounts increased at all levels. In 1999, a secondary student received 0.97 and a university student received 8.77 times as much as a primary student, compared to 1.49 and 17.83 respectively in 1995 (Table 4.11). This again reflects that by the late 1990s secondary education was the most economically provided of all levels.

Although it could be said that more funds could have been made available to primary education by saving on teacher training and tertiary education, the point is not that the spending on teacher training and university is greater than per pupil expenditure at primary level, but that it is excessively more. The suggestion to reorient education expenditures away from tertiary towards primary education does also not

imply that spending on tertiary education currently is more than adequate (while spending on primary education is far less so). Nor does it imply that the welfare impacts of spending on teacher training and tertiary education are not as great as those of spending on primary education. But it is largely based on the need to improve the provision of adequate primary school facilities and the provision of more quality teachers in the presence of HIV/AIDS.

4.12 Education sub-sectoral development expenditure as a percentage of GDP and total education development expenditure

| | 1977-81 | 1982-6 | 1987-91 | 1992-6 | 1997-9 |
|---|---------|--------|---------|--------|--------|
| Sub-sectoral expenditure (% of GDP) | | | | | |
| General administration | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Primary | 0.8 | 0.5 | 0.3 | 0.2 | 0.4 |
| Secondary | 0.9 | 0.6 | 1.4 | 1.3 | 1.8 |
| Universities and teachers' colleges | 0.4 | 0.4 | 0.5 | 0.5 | 0.3 |
| Vocational and other | 0.4 | 0.3 | 0.3 | 0.4 | 0.6 |
| Total | 2.5 | 1.7 | 2.6 | 2.5 | 3.2 |
| Sub-sectoral expenditure (% of total development) | | | | | |
| General administration | 0.9 | 1.2 | 1.5 | 0.8 | 0.3 |
| Primary | 30.8 | 26.9 | 12.1 | 7.7 | 12.9 |
| Secondary | 35.7 | 31.9 | 53.1 | 54.2 | 57.8 |
| Universities and teachers' colleges | 15.1 | 23.5 | 20.4 | 19.4 | 9.2 |
| Vocational and other | 16.1 | 16.7 | 12.9 | 17.9 | 19.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Government Financial Statements, Tables and Estimates of the Consolidated and Development Fund Revenues, and Estimates of Expenditure from the Consolidated and Development Funds

Table 4.13 Education sub-sectoral development expenditure (Pula millions, 1995 constant prices)

| | 1978 | 1985 | 1990 | 1995 | 1999 |
|-------------------------------------|------|------|-------|-------|-------|
| General administration | 1.0 | 1.2 | 3.8 | 1.1 | 2.1 |
| Primary | 18.1 | 19.7 | 28.4 | 22.3 | 71.1 |
| Secondary | 27.5 | 23.1 | 154.4 | 234.1 | 261.5 |
| Universities and teachers' colleges | 8.3 | 20.4 | 44.3 | 29.0 | 60.2 |
| Vocational and other | 3.4 | 12.1 | 17.4 | 43.2 | 78.9 |
| Total | 58.3 | 76.2 | 248.3 | 329.7 | 473.7 |

Source: Government Financial Statements, Tables and Estimates of the Consolidated and Development Fund Revenues, and Estimates of Expenditure from the Consolidated and Development Funds

The education investment or development budget was on average skewed towards the secondary education level, followed by primary education in the late 1970s and early 1980s (Table 4.13). By 1980 the government adopted the overall objective of achieving UPE. With considerable support from foreign

donors, the government undertook major investment in primary school construction programmes during the 1970s and 1980s. This explains the relatively high investment in primary schools between 1978 and 1981. In actual fact, the donor-funded ARDP, discussed in Chapter 2, ended in 1978. The resultant expansion in provision of primary school facilities facilitated the quantitative expansion in enrolments over the years and the almost complete attainment of the UPE goal in 1999 (see Chapter 3).

Education development shifted towards the expansion of secondary education during the early 1980s (Tables 4.12, 4.13) in order to deal with the problem of the low progression rate from primary schools,²⁰ and the general concern from the public that the low-qualified primary school leavers were unable to find jobs. The number of junior secondary schools was rapidly expanded and secondary school fees were abolished in 1988. Large increases in education development expenditure in the 1990s for secondary and primary education were intended both to achieve the goal of universal ten years' basic education and to implement the recommendations of the RNPE of improving access and education quality.

4.4 Donor involvement in the education sector

The major donors to education in Botswana have been the British, Swedish, Danish and UN specialised agencies, the USA, African Development Bank and the World Bank. Prior to 1972 the UK, UN and USA committed relatively large sums towards the education recurrent budget, which included paying tuition and living costs for Botswana students studying abroad.

A large commitment to education development expenditure came from the Scandinavian countries, mostly from Sweden. The Swedish education expenditure mainly involved building primary schools and primary teacher training colleges, as well as purchase of furniture and teaching materials, and building maintenance. Swedish participation in the education sector came about as a result of the rural development policy of 1972, which attracted their aid and emphasised primary education because of its long-term potential to alleviate rural poverty. With donor funding, by 1976 the rural development policy had built 489 primary school classrooms, 425 teachers' houses and 596 latrines. The primary donors supporting classroom and teacher college construction have been the World Bank, the African Development Bank and the Swedish International Development Agency (SIDA) (in the late 1970s and early 1980s). SIDA withdrew from primary education construction projects in the 1980s to focus on water projects, rural development and vocational training centres. The British scaled back their large technical assistance programme during the 1980s, leaving USAID as the major bilateral donor in formal education.

USAID became a major donor in the education sector with the start of the Primary Education Improvement Project (PEIP) in 1981, a five-year programme to establish a Department of Primary Education at the University of Botswana to train teachers for the primary teacher training colleges and to carry out a series of in-service training workshops to improve the skills and motivation of existing

²⁰ By 1999, the transition rate from primary school to junior secondary was 96.1 per cent, suggesting that Botswana was well on the way towards attaining the objective of providing ten years of basic education for all children (seven years of primary and three years of secondary).

teachers. The other major education project carried out by USAID was the Junior Secondary Education Improvement Project (JSEIP), which commenced in 1985 to upgrade the quality of community junior secondary schools through the development of curriculum and instructional materials, strengthening of teacher training and upgrading of management capacities at the MoE. USAID education projects have supported important construction, but most US assistance has gone toward the provision of US technical advisers and training for Botswana. The British still fund a large number of expatriate teachers at the secondary level, particularly in mathematics and sciences. The US, UK and Canada have also provided several hundred volunteer teachers annually in recent decades, most of them secondary school teachers.

Aid continued to play a major role in the development budget in the 1970s (aid represented 80 per cent of development expenditure in 1976). However, with the build-up of diamond revenues over the 1980s, the significance of foreign aid as a source of development expenditure declined to 45 per cent of development expenditure in 1986 and less than 5.1 per cent since 1994.

In the education sector, aid financed almost the entire development budget in the late 1970s and early 1980s. In 1978 the share of external finance in total education development expenditure was 98.2 per cent declining to about 6 per cent in 1998 (see Table 4.14). During the same period, the share of domestic finance increased from as low as 1.8 per cent in 1978 to 94 per cent in 1998. The percentage shares of external finance to total primary and secondary schools development expenditures also fell from as high as 100 per cent in 1978 to zero and 1 per cent, respectively, in 1998. The pattern shows that, in the 1990s, education expenditure was largely financed from domestic resources. The drastic fall in aid in the mid-1990s is explained by the withdrawal of several long-standing donors, including the USA, Norway and Germany, on the basis that Botswana no longer needed concessionary assistance. From the above analysis it is clear that donor involvement in the education system spared government resources to enable the government to introduce and finance universal free primary education for all.

Table 4.14 External and domestic finance as a percentage share of education development expenditure

| | 1978 | 1985 | 1998 |
|---|-------------|-------------|-------------|
| External share of education development expenditure | 98.2 | 54.2 | 6.0 |
| Domestic share of education development expenditure | 1.8 | 45.8 | 94.0 |
| External share of primary development expenditure | 100 | 98 | 0.0 |
| External share of secondary development expenditure | 97.0 | 36.1 | 1.0 |

Source: Government Estimates of Expenditure from the Consolidated and Development Funds

4.5 Composition of recurrent budget at the primary level

During the period 1978–99 the central government's recurrent expenditure on primary education was channelled through the MLG and MoE, as the two ministries share the responsibility of providing primary education services. The MoE, through the Department of Teaching Service Management, pays the salaries

of primary school teachers²¹ and, through the Department of Primary Education, is responsible for supervising, inspecting and ensuring that learning takes place in all primary schools. On the other hand, the MLG, through local authorities, is charged with the provision of primary school buildings, maintaining and equipping schools, supplying students with books, and the provision of teachers' houses.

Table 4.15 tracks the primary education recurrent budget allocation among these departments between the two ministries. The analysis, as per Table 4.15, reveals that salaries of primary school teachers are by far the largest item, accounting for 80 per cent or more of the total primary education recurrent budget from 1978 to 1984, before declining to about 75 per cent in the 1990s. Provision of school books and stationery accounts for the second largest share of recurrent expenditure to primary schools, and is the major task performed by the MLG in dealing with its primary education responsibilities. Operation and maintenance expenditure accounts for the second largest share of primary education recurrent expenditure at the MLG, and has been increasing over the years.

Table 4.15 Analysis of recurrent budget in primary education (%)

| | 1978-79 | 1982-4 | 1989-99 | 1999 |
|--|---------|--------|---------|------|
| MoE | 89.4 | 83.6 | 76.8 | 76.3 |
| Teachers' emoluments | 87.3 | 81.9 | 74.4 | 73.1 |
| Department of Primary Education* | 2.1 | 1.7 | 2.4 | 3.2 |
| MLG | 10.6 | 16.4 | 23.2 | 23.7 |
| Operating and maintenance expenses** | 3.0 | 1.7 | 5.5 | 7.9 |
| Purchase of office furniture and equipment | 0.3 | 0.3 | 0.6 | 1.3 |
| School books and stationery | 6.5 | 13.5 | 16.4 | 13.6 |
| Teaching materials | 0.6 | 0.6 | 0.3 | 0.6 |
| Sports equipment and prizes | 0.1 | 0.1 | 0.2 | 0.2 |
| Grants | 0.1 | 0.2 | 0.3 | 0.2 |

Note: The table excludes primary school feeding recurrent expenditure, as the data could not be separated from Ministry of Health feeding programme expenditure data.

* covers the entire running costs of the department

** includes non-teaching personnel salaries

Source: MoE. Various issues of City and Town Councils Recurrent Budgets, Estimates of Expenditure from the Consolidated and Development Funds Reports, and the district level Recurrent Budget Books.

Table 4.15 reveals that very little has been assigned for materials and supplies and for the maintenance and rehabilitation of schools, since most of the allocations went into teachers' emoluments. However, the very high percentage allocations for teachers' emoluments do not imply that salaries for teachers were adequate. Botswana's civil servants, including all teachers, follow a unitary salary structure, in which upon entry one proceeds through the scales based on performance and seniority. The public sector salary structure and salary adjustments are influenced by the recommendation of the Salaries Commission in the years when the Salaries Reviews are conducted. The Salaries Commission takes evidence from the

²¹ Central government took over the payment of primary school teachers from district councils from April 1976.

government, representative of government and private employee organisations, and civil society on the need for increases in pay, and considers the economic factors that should influence their appropriate size. The Commission is appointed at roughly five-year intervals and over the intervening years, on an annual basis, the National Employment, Manpower and Incomes Council (NEMIC) meets to consider a cost of living adjustment for the public service, which may or may not be given depending on the economic situation.

Tables 4.16 and 4.17 show the nominal and real starting salary for a selection of primary school teaching posts since 1978 and in subsequent selected years in the local currency. Table 4.16 shows that teachers' starting salaries in local currency units have been increasing from 1978 to 2000 at all levels. However, in real terms teachers' salaries actually declined from 1978 to 2000, as indicated in Table 4.17. The starting salary differential or gap between an Assistant Teacher in B3 scale and a Head Teacher in C1 scale consistently remained around 1:3. On the other hand, the gap between the starting salary of the same Assistant Teacher (AT) in primary and that of the Permanent Secretary (PS) has been increasing from as low as 1:5 in 1978 to 1:13 in 2000, showing that teachers' salaries have not been adjusted at the same rate as those of permanent secretaries during this period.

Table 4.16 Evolution of primary teachers' starting salaries (Pula per year, current prices)

| Scale | Post | 1978 | 1986 | 1990 | 1995 | 2000 | Average annual growth |
|--------------|---------------------|--------|--------|--------|---------|---------|-----------------------|
| F2 | Permanent Secretary | 13,416 | 28,596 | 74,544 | 101,868 | 215,940 | 13.46 |
| C1 | Head Teacher | 6,468 | 12,372 | 24,840 | 33,948 | 51,708 | 9.91 |
| C2 | Deputy Head Teacher | 5,388 | 10,728 | 20,220 | 27,648 | 42,132 | 9.80 |
| B3 8th notch | AT COSC+TS+PTC | - | 4,812 | 8,136 | 11,124 | 17,340 | 9.59 |
| B3 7th notch | AT COSC+PTC | 2,976 | 4,572 | 7,968 | 10,896 | 16,992 | 8.24 |
| B3 6th notch | AT JC+PTC | 2,616 | 4,344 | 7,788 | 10,656 | 16,632 | 8.77 |
| B3 5th notch | AT PSLE+PTC | 2,496 | 4,128 | 7,632 | 10,428 | 16,260 | 8.89 |

Note: AT refers to an Assistant Teacher post and is the post given to all starting teachers. TS refers to Tirelo Sechaba.

Source: Government Public Service Management Directives

In nominal terms, teachers' starting salaries grew at various rates, ranging from 8.2 per cent to 9.9 per cent per annum from 1977 to 1999 (Table 4.16). The rate of growth of public service salaries tended to be higher for high-income earners compared to low-income earners. The starting salary for Permanent Secretaries at F2 scale grew in nominal terms by 13.46 per cent per annum during the period, an increment that was larger than that for primary school teachers. Furthermore, the average annual growth of teacher's starting salaries was below the rate of growth of annual inflation of 10.8 per cent during the period. As a result, in real terms the evidence from Table 4.17 suggests that teacher's starting salaries have tended to decline annually at rates that ranged from -2.3 per cent to -0.7 per cent over the period, thus

making the salaries in real terms to decline below their levels in 1978. This can again be compared to the PS's starting salary, which grew at 2.46 per cent per annum in real terms over the period.

Table 4.17 Evolution of primary teachers' starting salaries (Pula per year, constant 1995 prices)

| Scale | Post | 1978 | 1986 | 1990 | 1995 | 2000 | Average annual growth |
|--------------|---------------------|--------|--------|---------|---------|---------|-----------------------|
| F2 | Permanent Secretary | 84,324 | 76,685 | 135,190 | 101,868 | 144,056 | 2.46 |
| C1 | Head Teacher | 40,654 | 33,178 | 45,049 | 33,948 | 34,495 | -0.74 |
| C2 | Deputy Head Teacher | 33,865 | 28,769 | 36,670 | 27,648 | 28,107 | -0.84 |
| B3 8th Notch | AT COSC+TS+PTC | 0 | 12,904 | 14,755 | 11,124 | 11,568 | -0.78 |
| B3 7th Notch | AT COSC+PTC | 18,705 | 12,261 | 14,450 | 10,896 | 11,336 | -2.25 |
| B3 6th Notch | AT JC+PTC | 16,442 | 11,649 | 14,124 | 10,656 | 11,095 | -1.77 |
| B3 5th Notch | AT PSLE+PTC | 15,688 | 11,070 | 13,841 | 10,428 | 10,847 | -1.66 |

Note: AT refers to an Assistant Teacher post and is the post given to all starting teachers. TS refers to Tirelo Sechaba.

Source: Government Public Service Management Directives

4.6 Summary of findings from Chapters 3 and 4

From Chapter 3 we observed that the primary education system achieved quantitative expansion since the introduction of UPE in 1980. However, the halving of school fees in 1973 had a profound impact on enrolment expansion. Education indicators improved with the introduction of UPE. The pupil-teacher ratios declined, thus highlighting improvements in school teaching conditions over the years. The drop-out rate was low and fluctuating after UPE, reflecting high retention within primary schools. The repetition rates were low before UPE and tended to increase slightly after UPE, which reflected a slight deterioration in the efficiency of the primary school system. Overall, low drop-out and repetition rates resulted in high but stagnant survival rates during the drive towards UPE, suggesting that improvement in qualitative measures did not result in changes in education outcomes.

In Chapter 4 we observed that the expansion in primary education was accompanied by increasing primary education expenditure as both a share of total education budget and GDP since 1982, and remained the single sector allocated the largest share of the education budget. This suggests that primary education was among the top priorities of the government over the years in spite of the fact that in the early 1980s the government's priorities shifted towards the expansion of secondary education. However, in Chapter 3, we observed that despite the quantitative expansions achieved in primary education accompanied by improvements in internal efficiency the education outcomes (measured by survival rates) remained stagnant. This suggests that increased public expenditure towards primary education succeeded in getting more children into schools but did not have an impact on education quality or outcomes. This is partly reflected by the academic qualifications of teachers, which remained low and did not change much since the introduction of UPE.

5 Equity issues and the costs facing households

In the previous chapters, we found out that the main aim of the country as it gradually reduced primary schools fees and eventually abolished them in 1980 with the introduction of UPE, was to achieve equity and improve access to schooling for the poor. We observed quantitative expansion in primary enrolments, and that primary education received the highest share of the public education expenditure since the introduction of UPE. This part of the study assesses the impact that this major policy change, combined with increased government spending on education, has had on access to schooling by the poor. The specific questions that we address are: To what extent has the distribution of public education expenditure become more or less equitable in Botswana? How does public primary expenditure differ across different regions and how has this changed over time? To what extent do spending differences across regions reflect differences in the school-age population? What are the costs facing households in sending their children to primary school? In answering these questions we will be able to assess the distributional effects of public education spending on different household groups, by income level and geographic locations.

Benefit incidence methodology (Meerman 1979; Demery 1998) is used in this analysis to examine the distributional impact of public spending. In education spending, this methodology entails combining data on public spending per student (unit costs) with household consumption and enrolment data derived from a household survey. This provides a profile for a specific category of 'benefit incidence' of education public expenditure throughout the distribution of income. Thus this technique assumes that the benefit derived from education is equal to the government cost of providing this service.

First, data from household income and expenditure surveys (HIESs) are used to construct the quintiles. The HIESs identify the educational level, type of school and total income/expenditure. For this section we use the 1993–4 HIES survey because it covered children at school aged 5 to 15 years. We therefore adopt the 5–15 school-going children for our analysis in this section, because the official school age of 7 to 13 years falls within this age range. But the weakness of the 5–15 age range covered in the 1993–4 survey is that not all of them might have been in primary schools, some might have been in secondary schools. However, the education statistics reports show that in primary school, despite the 7–13 official age, there were still students whose ages ranged from 5 to 21 years (MoE 1998). Data on children at school are not available in the earlier surveys, but this will be compensated for by analysing district unit costs later in this section. The 1993–4 survey was representative at national level in urban and rural areas. In our case total real per capita expenditure is used as a measure of the living standard (thereby giving equal weight to each person in the household). Households are then ranked into quintiles based on their per capita real total expenditure. Second, data on government expenditure on education assigned to the different levels of schooling from the MFDP are used for calculating unit costs.

Equity issues are then analysed based on the pattern of government subsidies to primary education received by different population groups, highlighting the results of changes in the use of primary educational services and changes in government's expenditure for primary education by regions. We investigate trends in public expenditure in education, with the view of establishing the extent to which it

has helped achieve the broad objective of equity or fairness in the provision of the education service at the national level in 1993–4. The next step will be to analyse the regional primary unit costs trends, by combining the regional recurrent costs and primary enrolments, to establish whether public spending on education in Botswana has been applied equitably across the country.

5.1 Benefit incidence analysis

In this section we first discuss the characteristics of households covered by HIES 1993–4. Table 5.1 presents for each quintile the mean household expenditure per capita, mean household size, and mean number of children aged 5–15 at school and not at school. The enrolments provide information about the utilisation of publicly provided schools across the country by students from various income levels.

The analysis reveals that in 1993–4, the richest 20 per cent of the population accounted for about 64 per cent of total expenditure, compared to 3 per cent of expenditure for the poorest 20 per cent. This reveals high levels of income inequality in the country, as measured by the share of total consumption expenditure. Both household size and the number of children in each income group decline as household per capita expenditure increased. Thus the poorest households were larger, with more school-aged children compared to the richest households who had fewer children.

Table 5.1 Real total expenditure and average number of children by income group, 1993–4

| | Income groups | | | | |
|--|---------------|--------|--------|--------|-------------|
| | Poorest 20% | 2 | 3 | 4 | Richest 20% |
| Mean household per capita total expenditure | 147.18 | 316.72 | 538.67 | 977.33 | 3,467.57 |
| Household expenditure as a percentage of total expenditure | 3 | 6 | 10 | 17 | 64 |
| Proportion of school age population | 31 | 22 | 20 | 16 | 7 |
| Mean household size | 6 | 5 | 4 | 3 | 3 |
| Mean number of children age 5–15 | 2.1 | 1.8 | 1.3 | 0.9 | 0.5 |
| At school | 1.4 | 1.5 | 1.1 | 0.8 | 0.5 |
| Not at school | 0.7 | 0.4 | 0.3 | 0.2 | 0.1 |

Source: HIES 1993–4

Given the level of income inequality, the distribution of public recurrent spending in favour of primary education has important implications for targeting the poor. A combination of the estimates of the public subsidy at primary education level and information on the use of the services across population groups and geographic regions makes it possible to draw a picture of the incidence of public education spending in 1993–4.

5.2 Primary school enrolment and inequality

Table 5.2 illustrates primary enrolment in different households in 1993–4. It shows that the primary net enrolment rate for the richest quintile was almost 20 per cent more than that of the poorest quintile nationwide. This suggests that besides poor households having more children of school age (see Table 5.1), not all of them attend school. The NER of 69 per cent for the poorest 20 per cent was even below the national rate of 78 per cent (because of the sample used the NER figure of 78 per cent is lower than the national NER figure reported in Chapter 3). The figures suggest that in 1993–4 the majority of those not attending school came from the poorest 20 per cent of the households, and more especially from those in rural areas. However, in urban areas and urban-villages the enrolment rates among the poorest 20 per cent are higher than in rural areas (defined as farm settlements and ranches), but remained low compared to those for higher income groups.

Table 5.2 Primary net enrolment ratios by income group and region, 1993–4

| | Income groups | | | | | Total population |
|--------------------|---------------|----|----|----|-------------|------------------|
| | Poorest 20% | 2 | 3 | 4 | Richest 20% | |
| National NER | 69 | 80 | 81 | 84 | 88 | 78 |
| Urban NER | 78 | 79 | 85 | 84 | 91 | 82 |
| Urban Villages NER | 76 | 85 | 84 | 84 | 87 | 82 |
| Rural NER | 49 | 72 | 77 | 76 | 83 | 70 |

Source: HIES 1993–4

Table 5.3 Distribution of primary education spending by income group and region, 1993–4 (US\$)

| | Income groups | | | | | Total population |
|-------------------------------|---------------|---------|---------|---------|-------------|------------------|
| | Poorest 20% | 2 | 3 | 4 | Richest 20% | |
| Urban | | | | | | |
| Primary spending (US\$) | 140,217, | 98,175 | 76,079 | 53,032 | 40,498 | 408,001 |
| Row share (%) | 34 (43) | 24 (29) | 19 (31) | 13 (30) | 10 (38) | 100 (34) |
| Urban villages | | | | | | |
| Primary spending (US\$) | 118,342 | 136,434 | 95,963 | 62,052 | 31,529 | 444,320 |
| Row share (%) | 27 (36) | 31 (41) | 22 (39) | 14 (35) | 7 (30) | 100 (37) |
| Rural | | | | | | |
| Primary spending (US\$) | 67,778 | 100,341 | 75,502 | 64,513 | 34,519 | 342,653 |
| Row share (%) | 20 (21) | 29 (30) | 22 (31) | 19 (36) | 10 (32) | 100 (29) |
| National level | | | | | | |
| Total primary spending (US\$) | 326,337 | 334,950 | 247,544 | 179,597 | 106,546 | 1,194,974 |
| Row share (%) | 27 | 28 | 21 | 15 | 9 | 100 |

Notes: figures in brackets shows column shares

Source: HIES 1993–4

However, the findings in Table 5.3 suggest that the education subsidies overall were pro-poor on a per capita basis. The poorest 20 per cent appropriated 27 per cent of the total primary subsidy, compared to 9 per cent allocated to the richest 20 per cent. The level of education subsidy is negatively correlated to household per capita consumption and positively correlated to the number of school-age pupils in each household. This implies that the poorest group received the bulk of the education subsidy in 1993–4.

The demographic differences across quintiles arise in part because of the use of per capita household expenditures to rank individuals, and as a result of that measure, poor households are both larger and have more children than wealthy households. Because of this, they gain a significant proportion of the primary education subsidy. In Table 5.1, both the proportion of the 5–15 population, and the mean number of 5–15 primary-age children per household in the poorest 20 per cent is much greater than that of richest 20 per cent, implying that the share of subsidies the poor get would be greater than that for the richest 20 per cent. However the lower share of the education subsidy received by the richer households may indicate their revolt against poor academic performance in public schools and a preference for sending their children to private schools, which make them forgo the benefits of public education subsidy.

The subsidy for primary education is more fairly and progressively distributed compared to household income and expenditure. The benefits in monetary terms received by the poorest 20 per cent of the population, as a share of total household expenditure,²² were far greater than the benefits gained by the richest quintile in 1994. This demonstrates to a certain extent that the government's recognition of education as a fundamental human right for all was not compromised by the considerable income inequality that prevails in the country. This highlights education expenditure as an important tool in redistributing the benefits of economic growth to the poor.

5.3 Regional trends in education subsidies

National averages although useful tend to obscure deep regional inequalities in the utilisation of education services by households of different income levels. A regional analysis of the data in Table 5.3 reveals that in 1993–4 in urban areas the education subsidy was targeted to the urban poor. The education subsidy in urban areas was negatively correlated to household income and expenditure levels. In urban villages the education subsidy was also targeted to the middle-income groups. In absolute terms the poorest 20 per cent in urban villages accounted for about 24 per cent of the total primary subsidy, (compared to about 27 per cent and 24 per cent for the second and third quintiles respectively). In rural areas, the education subsidy was not targeted to the rural poor, but to the middle-income groups. The poorest 20 per cent in rural areas accounted for less than 20 per cent of the total primary education subsidy. This compares to more than 20 per cent subsidy appropriated by each of the three middle quintiles in rural areas.

²² The education subsidy that flowed to the poorest 20 per cent of the population represented 8.3 per cent of the total household expenditure in the period 1993–4, which compares to 2.7 per cent received by the richest 20 per cent.

From the survey it appears that in urban areas the poorest are the most educationally advantaged, and in rural areas they are the most educationally disadvantaged. For instance, 20 per cent of the poorest households residing in urban areas in 1993–4, accounted for about 43 per cent (Table 5.3, column shares) of the total primary education subsidy, compared to 36 per cent in urban villages and 21 per cent in rural areas. This could be explained by the greater number and accessibility of primary schools in urban areas, which act as an incentive for more children from poor households to attend schools rather than to drop out, compared to urban villages and rural areas. The 1993 and 1994 education statistical bulletins recorded high drop-out rates in rural areas compared to other areas, and cited desertion and early marriages among the reasons (CSO 1993 and 1994).

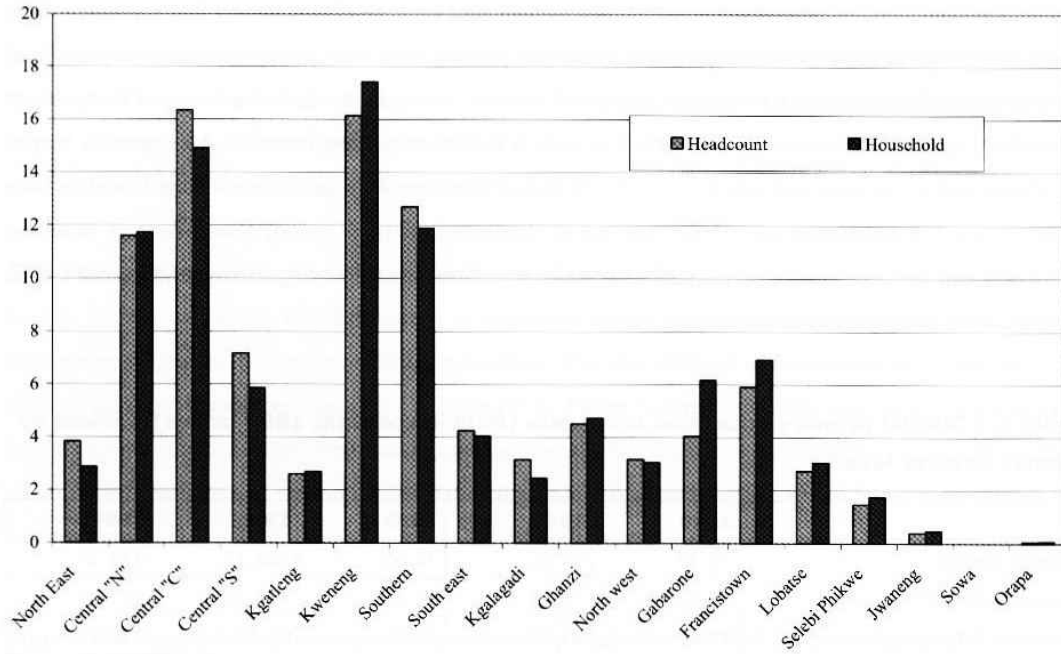
Overall, what emerges is that for both groups of the poor, especially in rural and urban areas, a policy that would generate opportunities for the poor to raise their average income would, among other factors, almost certainly reduce the educational inequity. Such opportunities would reduce the income constraint that seems to directly influence poor households to marry off their daughters young before completing school, as a means of escaping household poverty and reducing household dependency rates.

5.4 Distribution of public education expenditure across districts

The above analysis is constrained by the fact that we assessed only a single period and applied a national primary unit cost, even at regional level. In this section we use regional primary recurrent unit costs to assess whether public primary expenditures were distributed equitably across the country over the period, and how they varied. The distribution of public primary education expenditure across districts is influenced by the number of primary-age pupils in that district. Enrolment rates vary by district, as does population. The largest districts and town councils with large populations have more primary students enrolled (see Appendix A3 Table A3.1). The Central district, which accounts for more than one-third of the entire population of the country, has the largest enrolment share, over 35 per cent, between 1980 and 1999. In the late 1980s enrolment increased in the Kweneng district and declined in the Southern district, to make the Kweneng district the second largest enroller of primary-age population after the Central district. The North West district remains the fourth largest primary enroller after Central, Kweneng and Southern. However, enrolments have been declining consistently over the years in districts, except for Kweneng and the North West, and increasing in towns, suggesting rural migration to urban areas.

However, Figure 5.1, using the 1993–4 HIES data, shows districts and town councils that have the largest proportion of students enrolled in primary schools also have the largest proportion of households and individuals living below the poverty datum line. This crudely suggests that abolishing school fees opened many more opportunities for poor children to enrol in schools, highlighting the country's efforts to address equity problems and move towards achieving the national philosophy of social justice in primary education.

Figure 5.1 Poverty rates by district, 1993-4



Source: HIES 1993-4

Regional primary education expenditures are best represented by grants from the MLG spent by local authorities to cover expenses such as development, operation and maintenance, and pupils' books and stationery (see Appendix 3 Table A3.2). Development expenditure is directed by the need to either expand an existing school or build a new one based on primary-age population changes and the priority of the district development plans. The recurrent side is mainly made up of the costs incurred in supplying stationery and other teaching materials to schools. The stationery costs for each school are based on the number of children that are enrolled for that school and have been calculated at the rate of P120 per pupil since 1994. Before 1994 it was P60. Thus, like the development budget, the recurrent budget changes were also influenced by changes in the primary-age population. As a consequence, the largest districts and town councils, with large school-age populations appropriated the largest shares of both the development and recurrent budgets.

In Table 5.4 district level recurrent unit costs were calculated and districts were ranked according to their poverty status, using information from Figure 5.1, starting with the district that has the highest number of poor people. The unit costs reveal inequalities in primary recurrent costs across districts. Unit costs have tended to increase over time in all districts. However, the overall picture that emerges is that districts with a large proportion of poor people, such as Central and Kweneng, were consistently allocated a smaller share of the recurrent expenditure per pupil compared to urban areas such as Francistown and Gaborone and other districts between 1980 and 1999. Nonetheless, the same top three poorest districts Central, Kweneng and Southern, in that order, appropriated the largest shares of the total district education development and recurrent expenditures between 1980 and 1999, compared to smaller districts

(Appendix 3 Table A3.2). This is because these districts have the largest proportion of total primary enrolments compared to other regions, which makes their unit costs smaller. The fact that they have more pupils in schools at lower unit costs could suggest that primary education is less expensive to provide in these districts when compared to sparsely populated districts. Accordingly this would suggest that primary education expenditure was pro-poor over the period. It is further observed that the economically better-off towns and the remote and smaller district of Ghanzi have very high unit costs. Given that they have relatively smaller population of primary-age pupils compared to the Central, Kweneng and Southern districts it can be concluded that primary education is very expensive to provide in urban areas and in remote and sparsely populated districts.

Table 5.4 District primary education unit costs (Pula in constant 1995 prices), ranked by district poverty level

| | 1980 | 1985 | 1989 | 1995 | 1999 |
|----------------------------|--------|--------|--------|--------|----------|
| Central District | 70.37 | 63.65 | 72.60 | 122.12 | 174.24 |
| Kweneng District | 50.52 | 78.34 | 95.43 | 127.31 | 127.80 |
| Southern District | 53.51 | 91.37 | 88.20 | 94.19 | 110.97 |
| Francistown Council | 125.49 | 72.31 | 133.31 | 170.08 | 273.21 |
| Gaborone Town Council | 124.05 | 107.05 | 142.62 | 225.11 | 181.71 |
| Ghanzi District | 176.42 | 215.43 | 272.85 | 209.27 | 129.03 |
| South East District | 74.07 | 89.05 | 94.60 | 72.97 | 200.38 |
| Kgalagadi District | 87.15 | 86.49 | 162.62 | 218.79 | 261.45 |
| North West District | 93.36 | 84.28 | 96.44 | 107.92 | 214.93 |
| North East District | 74.50 | 91.57 | 109.40 | 99.70 | 132.78 |
| Lobatse Town Council | 64.51 | 76.85 | 106.51 | 136.44 | 251.98 |
| Kgatleng District | 75.95 | 88.96 | 112.85 | 163.96 | 226.43 |
| Selebi Phikwe Town Council | 137.69 | 131.87 | 162.07 | 90.24 | 165.42 |
| Jwaneng Town Council | 0.00 | 0.00 | 160.61 | 160.25 | 406.45 |
| Sowa Town Council | - | - | - | 279.87 | 251.84 |
| Regional average | 75.30 | 81.87 | 99.40 | 131.21 | 175.53 |
| National unit costs* | - | - | 843.19 | 962.69 | 1,480.12 |

Note: Only regional recurrent expenditure data are used, because not all data on regional development expenditure were available. Regional recurrent expenditure does not include teachers' salaries, but includes operating and maintenance, scholars' books and stationery, and grants to government-aided schools. The poverty ranking should be read with caution as the poverty study conducted in 1997 observed that some regional samples were not statistically significant to provide a robust picture of the poverty levels in such districts.

* The national averages include teachers' salaries

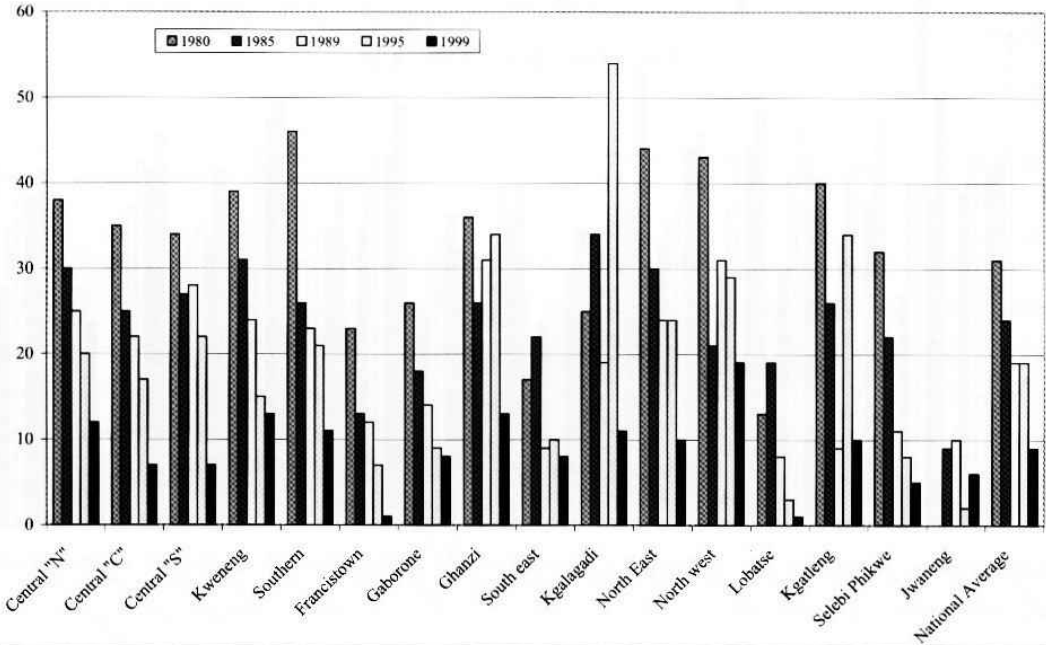
Source: Various education statistics reports; Districts and Town Councils Recurrent budget books

For all district councils, the bulk of the recurrent budget was spent on scholars' books and stationery,²³ while operating and maintenance expenses were small but increasing (Appendix 3 Table A3.2). However, for town councils, operating and maintenance expenses were higher than expenses on books and stationery. This is largely because in towns, recurrent expenditure covered expanded functions such as school security and electricity and water, which attract high tariff rates compared to those in districts, which in most cases do not have such facilities.

5.5 The impact of regional expenditure distribution

In this section we review the distribution of resources across districts and how it could have been an obstacle in efforts to universalise primary education. The allocation of untrained teachers over the years displays regional inequalities (Appendix 3 Table A3.3). Figure 5.2 ranks districts according to their poverty levels, and reveals that the poorest districts and almost all districts had consistently had a large proportion of untrained teachers that was above the national average. All urban areas and the South East district had a proportion of untrained teachers far below the national average.

Figure 5.2 Proportion of untrained teachers by districts ranked by poverty level



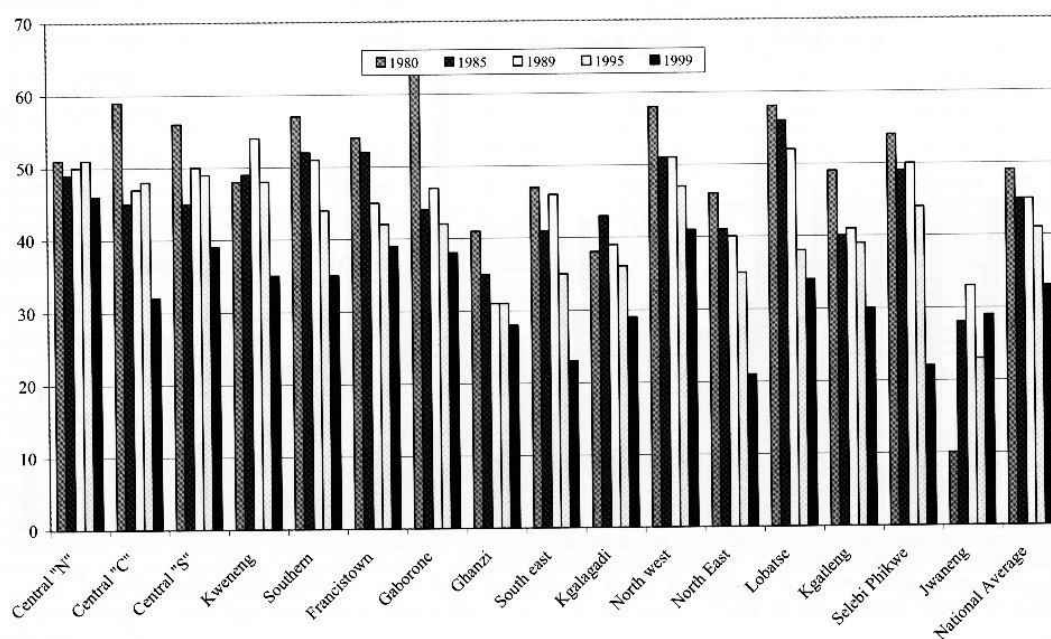
Source: Various education statistics reports

²³ However, there are problems associated with distribution of school books, which are attributed to such factors as the inability of head teachers in the region to accurately estimate requisition needs of their schools, resulting in shortages of books and stationery at the beginning of term, and lack of transport to distribute warehoused books at district level (raised in the RNPE 1994). From interviews it appears these problems were believed to be man-made because local authorities do not prioritise primary education.

Overall, there were more untrained teachers in districts than in town councils during the implementation of UPE, highlighting a town bias in the allocation of qualified teachers. However, in the absence of any education policy to concentrate trained teachers in urban areas, it can be deduced that trained teachers were reluctant to be placed in remote areas. From interviews it was revealed that the mushrooming of primary schools all over the country, following the adoption of UPE policy, caused many problems of qualified teachers refusing to be placed in or transferred to remote schools. Where such transfers were effected it emerged that the teachers immediately cited health problems and engaged the service of health personnel to prepare false health reasons that would warrant their relocation to towns or areas nearer towns.

Over the years there has been improvement in the provision of classrooms, as the average number of students per classroom declined between 1980 and 1999 (Appendix 3 Table A3.4 and Figure 5.3). In 1980 there were on average 49 students per classroom and in 1999 there were 33. Classroom sizes on average remained small in rural districts, which reflect low population densities, compared to urban areas, which have larger classroom sizes.

Figure 5.3 Student per classroom ratios by districts ranked by poverty levels

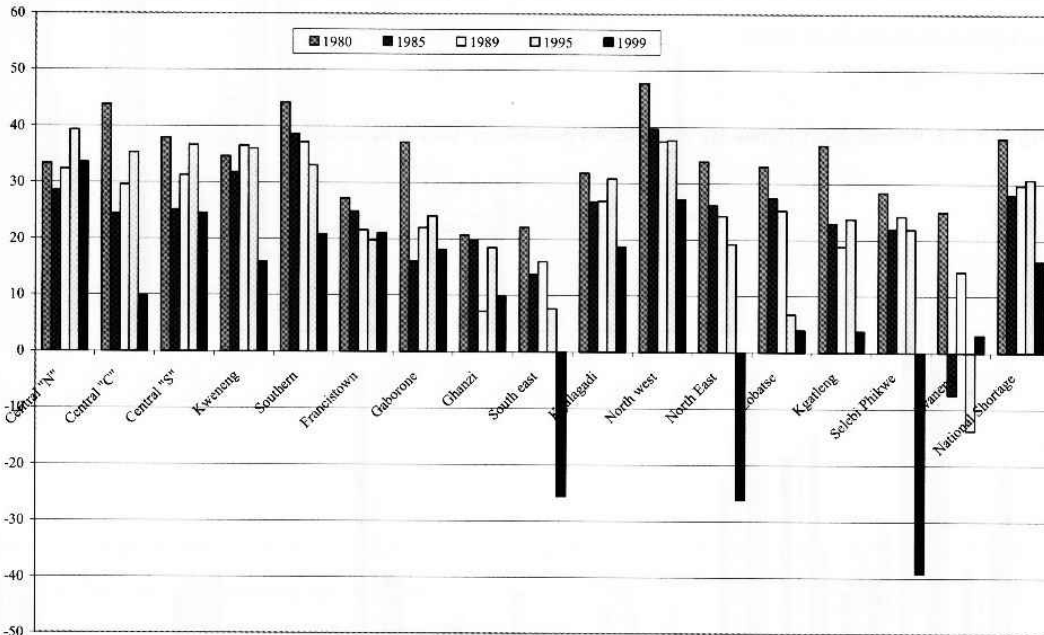


Source: Various education statistics reports

Provision of classrooms does not show any correlation with poverty levels, suggesting that the provision of school facilities was uniformly similar across the country. However, a greater shortage of classrooms in larger districts contrasts with an excess number of classrooms in smaller districts of the North East and South East, and towns like Lobatse, Jwaneng and Selebi Phikwe. This suggests that provision of primary

school infrastructure has been able to keep up with the growing enrolments in smaller districts and towns only, with the exception of big urban centres of Francistown and Gaborone (see Appendix 3 Table A3.5 and Figure 5.4).

Figure 5.4 Percentage of classroom shortages²⁴ by districts ranked by poverty level



Source: Various education statistics reports

Smaller districts and town councils such as the North East and South East, Central 'C', Lobatse, Jwaneng and Selebi Phikwe appear to be more efficient in managing the provision of school infrastructure, compared to larger districts and town councils. Overall the implication of classroom shortages is that double-shifting and outdoors teaching continued to be a feature of primary education across the country during the period of implementing UPE, and remained so in 1999.

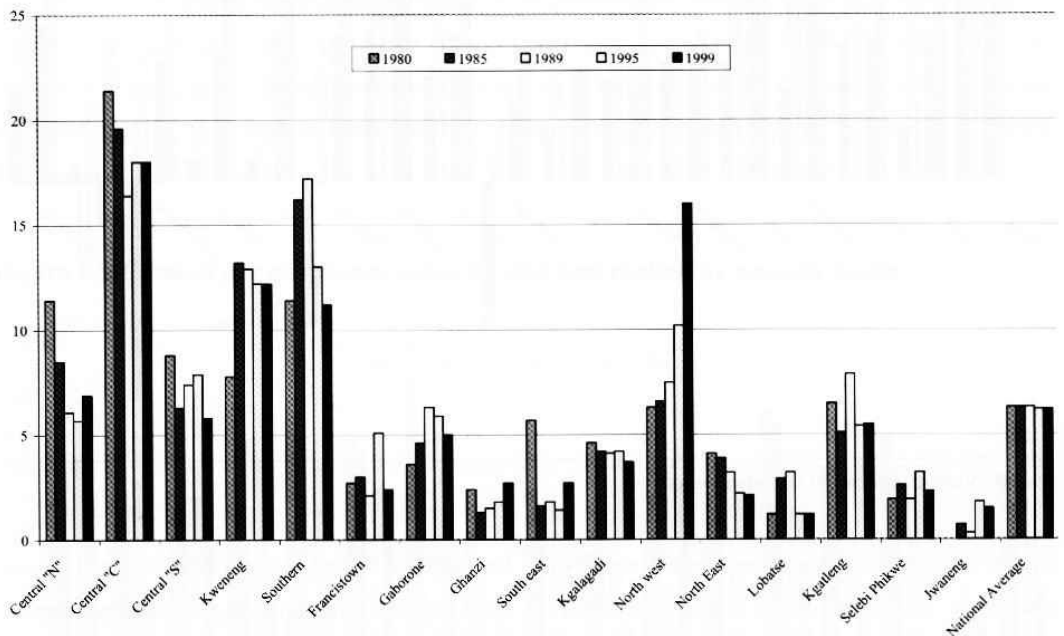
5.6 Repetition and drop-out rates

The retention capabilities of schools can have a profound impact on the attainment of UPE. High repetition or drop-out rates could affect all efforts towards UPE, as true universal primary education cannot be achieved until all children complete primary education. Figures 5.5 and 5.6 show that drop-out and repetition rates across regions differed markedly (see also Appendix 3 Tables A3.6 and A3.7)

²⁴ Classroom shortages per district are obtained by subtracting the number of physical classrooms available from the number of classes of students enrolled. Percentage shortages are derived from dividing classroom shortages by the total number of classes in the region. A negative percentage reflects excess classrooms over classes.

The percentage of repeaters to total repeaters by region reveals a constant average national repetition rate between 1980 and 1999. However, repetition rates in towns and in small districts closer to major towns were consistently below the national average, whereas in large and remote districts they were well above the national average. Repetition rates are high in areas that have high populations living in poverty. This seems to validate the suggested negative impact of other direct costs that are still borne by parents, such as pot fees, uniform costs and sports fees, on the non-completion of school by children from poor backgrounds (Kann *et al.* 1989).

Figure 5.5 Repetition rates by districts ranked by poverty levels

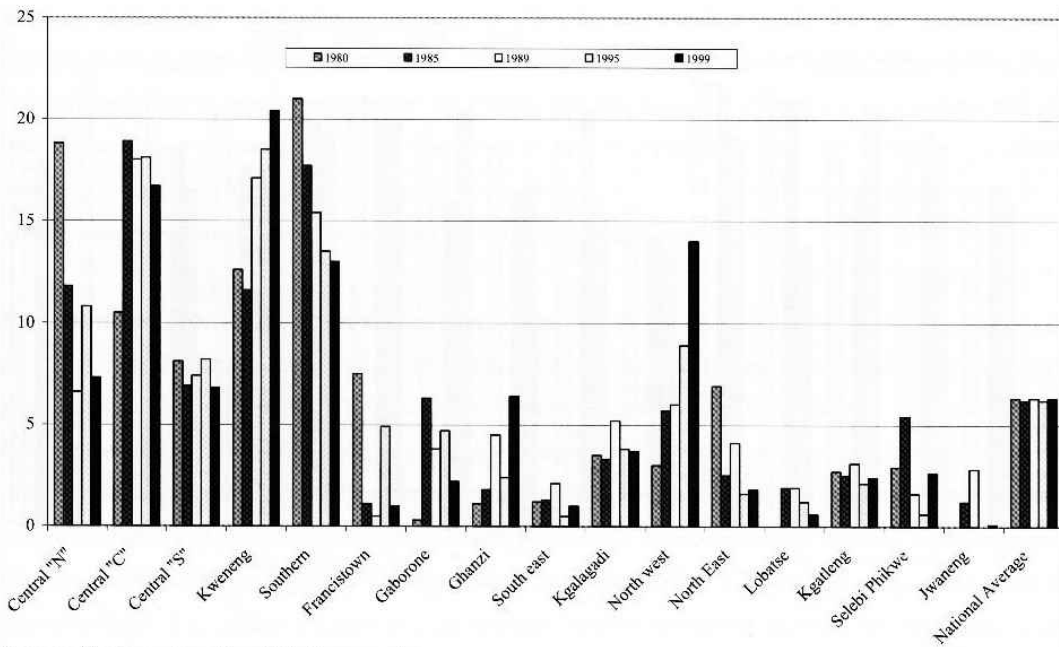


Source: Various education statistics reports

A similar pattern is observed with drop-out rates (Figure 5.6). Towns and small districts close to big towns have fewer students dropping out from school compared to bigger and remote districts. Again, districts with many poor people have many students dropping out of primary schools. Although poverty will be a factor in the repetition and drop-out rates, other factors such as distance to school, cultural factors,²⁵ economic factors and disabilities were noted in the RNPE, and seen from interviews to have impinged on efforts to universalise primary education.

²⁵ A study commissioned by the MoE (see Kann *et al.* 1989) identified cultural factors that led to Basarwa not enrolling their children in primary schools as: the close relationship between parents and children, inability to speak Setswana, tribalism and corporal punishment.

Figure 5.6 Drop-out rates by districts ranked by poverty levels



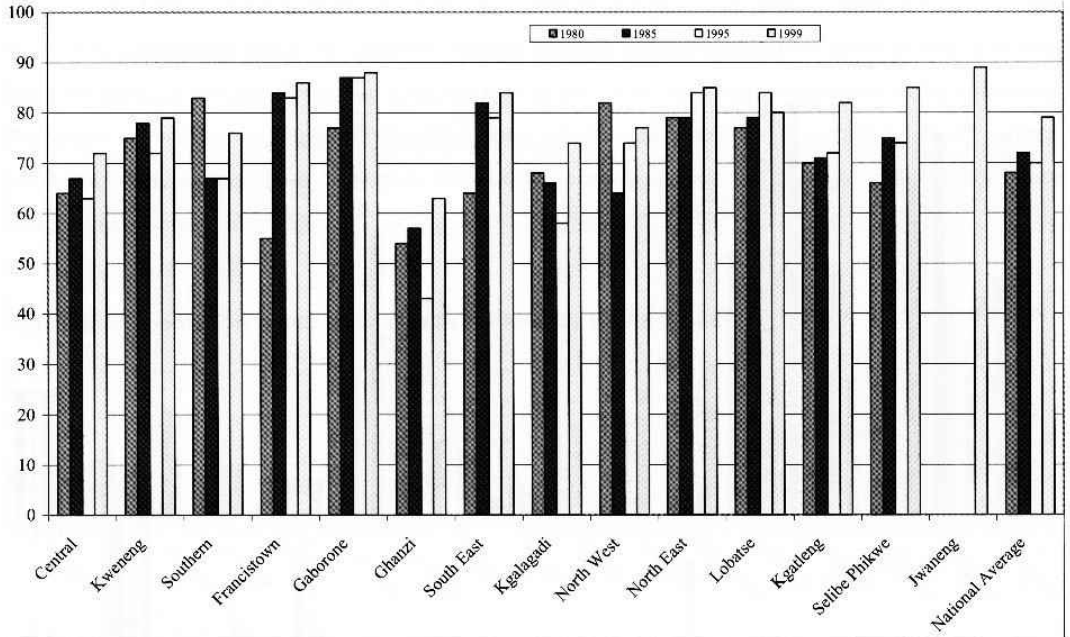
Source: Various education statistics reports

The highest drop-out rate is observed in the Kweneng district, which has a large population of remote area dwellers (RADs) primary-age children. A study conducted by UNICEF (1997) observed that in Kweneng district 55 per cent of boys did not finish school, and most left school to support their poor families by seeking employment as herd boys for wealthy cattle farmers. Girls from poor families were also found to leave school to help their families by seeking employment as child-minders in rich families outside their communities. The RNPE described the non-enrolment and high drop-out rates of children from the RAD communities as a major constraint to government efforts to achieve UPE.

5.7 Education outcomes by region

Pass rates for Standard 7 examinations improved between 1980 and 1999 in most regions (see Appendix A2 Table 2.11 and Figure 5.7). However, regional disparities existed over the period, as town councils recorded high and consistently increasing pass rates compared to large and very remote districts. Again districts with large populations of poor people recorded lower and declining pass rates between 1980 and 1995. The worst performing districts were the remotest Ghanzi and Kgalagadi. Small districts closer to major towns, such as the North East, South East and Kgatleng have been performing consistently better and almost on a par with towns.

Figure 5.7 Regional trends in education outcomes by Standard 7 pass rates



Source: Various education statistics reports

However, in 1999, the pass rates had improved in all regions. The 1999 Standard 7 examination results show variation in grades obtained across the regions. In percentage of total pupils who sat for examination in a particular region, the A grades varied from 26 per cent in Jwaneng to 4 per cent in Ghanzi, against a national average of 10 per cent (Appendix 3 Table A3.9). A similar regional variation in educational outcome can be observed in previous years. This further validates to some extent the observation made in interviews that qualified teachers prefer to be located in primary schools in towns or in regions that are in close proximity to towns.

The patterns of unequal educational outcome changes at lower grades, as a large proportion of children in rural areas obtain lower grades (C and D) compared to their counterparts in urban areas. In 1995, students who attained grade D varied from 57 per cent in the Ghanzi to 13 per cent in Gaborone, against a national average of 29 per cent. By 1999, the percentages of those who attained grade D had improved from 34 per cent in Ghanzi to 10 per cent in Jwaneng. Overall, the situation in primary education illustrates how children can be disadvantaged educationally by geographical location and thus exemplifies an equity problem. A larger proportion of students who sat for their examination in rural districts could expect to obtain poorer grades compared to their counterparts in urban areas.

The regional variations in resources allocation (classrooms and qualified teachers) translate into variations in educational outcomes across the country in a similar geographic pattern. In addition, the rural districts of Ghanzi and Kgalagadi that reveal poor educational outcomes, were found in a poverty study carried out by the Botswana Institute for Development Policy Analysis (BIDPA) in 1997 to have higher and more severe rates of poverty, whereas Gaborone and other urban areas, with better educational

outcomes, had lower and declining rates of poverty, attributed to their strong economic base and ability to generate more formal employment opportunities. The above scenario suggests that poor regions, with high proportions of people living in severe poverty, used primary education less by not enrolling their children compared to economically better-off regions. The implication is that remoteness and poverty are two of the factors that impinge on the attainment of universal primary education in Botswana and may continue to do so in the future. However, it can equally be the case that poor performance of rural schools may have discouraged parents from enrolling their children.

5.8 Summary of district level case studies

In addition to the factors discussed above, three district level case studies were conducted to establish specific reasons why there were differences in education outcomes in these districts and reasons for failure to attain UPE, and how that can be rectified; improvement or lack of it resulting in backlogs in the provision of school facilities; and high repetition and drop-out rates. The district case studies were chosen so that we had a well-performing district and badly performing districts although levels of expenditure per pupil were similar. Three districts, Tutume, Ghanzi and the North East were chosen on this basis, as shown in Table 5.5. Ghanzi emerges as a district with smaller number of students per classroom, fewer shortages of classrooms, low and fluctuating repetition and drop-out rates, but with the poorest education outcomes. The North East is the best performing district with the best education outcomes and better provision of school facilities. The Tutume sub-district is the worst performing district; it is the worst in the provision of facilities, and has poor education outcomes. From Table 5.5 it emerges that variations in physical facilities and qualified teachers across districts explain variations in outcomes.

Table 5.5 Case study districts' performance compared to the national average

| | Tutume | Ghanzi | North East |
|------------------------|---------------|---------------|----------------------------|
| Untrained teachers | above | above | above |
| Students per classroom | above | below | below |
| Classroom shortages | above | below | below (surplus classrooms) |
| Repetition rates | above | below | below |
| Drop-out rates | above | fluctuating | below |
| Education outcomes | below | below | above |

Note: above and below are made in reference to the national average.

The district case studies were conducted by collecting information through interviews with district level officials, both central government employees placed within local authorities and education secretaries who were employees of local authorities, using questionnaires. This section provides a summary of the findings from the three case studies.

Respondents were first asked to list factors they thought were constraints to the attainment of UPE over the years, and second, to state steps that, if implemented, would universalise primary education in the

country. Among the constraints identified as impinging on the attainment of UPE were: poverty; remoteness; culture; ranching; non-existence of a compulsory education policy; and language of instruction barriers. All these factors were associated with non-enrolment and high drop-out rates in certain parts of the country, thus affecting efforts towards UPE. Remoteness was reported to be a problem for children from remote settlements who had to travel long distances to the nearest school. In Ghanzi it was noted that government interventions, such as providing meals and boarding primary schools in remote and poor settlements have had a positive impact in enrolments. However, these gains have since been reversed by poor and deteriorating living conditions in such boarding facilities and the general cultural insensitivity of both teachers and boarding matrons to the children who came mostly from minority groups.

In some communities cultural and religious factors were reported to be preventing children from attending school or causing them to drop out, even when schools were within walking distance. In the North East, cases of Zezuru children not going to school were reportedly associated with religion and their enterprising way of life. In the Ghanzi area, the Basarwa children were reportedly leaving schools to either get married or just to be with their parents as the parent-child bond among this community was reported to be very strong. In such regions the non-attainment of UPE was blamed on the absence of a compulsory education policy at the primary level. Many children from poverty-stricken families were reported to be dropping out of school because of peer pressure, and because their parents could not afford to buy them school uniforms. Because of poverty, children in remote areas whose parents worked in ranches were reportedly quitting schools to help their families by seeking employment in ranches. The inability to speak Setswana was cited as a reason why some parents from non-Setswana-speaking communities did not send their children to school and also a cause for high drop-out rates in such communities. The suggested solution included, among others, the introduction of a targeted compulsory education policy to compel students already in school not to quit and the establishment of pre-schools to socialise children from remote areas to school from a very young age. It was further suggested that better and clean boarding facilities be provided for remote area schools, and staffed with culturally sensitised matrons and teachers.

One factor mentioned as militating against the attainment of UPE was the under-provision of primary school facilities. In actual fact we find in this chapter and in Chapter 3 that provision of school facilities did not match the expansion of schools. The following factors were reported to perpetuate this situation: lack and late disbursement of funds; local contractors who failed to complete projects on time and frequently ended up abandoning projects; lack of capacity within local authorities to monitor contractors; lack of effort to initiate legal action against directors of persistently defaulting construction companies, blamed on the fact that some of the contractors were owned by politicians or their relatives; and failure by suppliers to deliver material on time. The end result of failing to take legal action against defaulting companies was reported to be creating and perpetuating a culture in the industry of lack of commitment and professionalism. The consequence of this was that companies awarded tenders found no

fault in abandoning projects before their completion, the result of which was delays and costs escalation, which defeated the government's financial objective of using resources sparingly.

From interviews it appeared that the main problems encountered in almost all districts were delays in the implementation of agreed policies, programmes and projects, resulting in spillovers and accumulating backlogs. The level of severity varied across districts, with the Tutume sub-district performing badly. One of the factors associated with causing such delays was a shortage of technical staff, resulting in inadequate supervision. In a number of instances delays had been found to be caused by inadequate supervision and monitoring of companies by the council education project teams. Furthermore, in some areas delays in the provision of utilities such as water and electricity resulted in the delayed implementation of budgeted projects. In Tutume sub-district staff shortages were reported to be causing the existing skeletal council staff to spend most of the project implementation time preparing tendering documents. In some cases, shortages of technical staff result in underestimation of project cost during the appraisal process. This further delayed the implementation of the affected projects as they had to await the supplementary estimates to cover the shortfalls. However, recurring problems of shortages of technical staff remained compounded by fewer locals with technical skills, and the cumbersome and lengthy process of hiring expatriate staff.

In addition, some delays were reportedly caused by lack of capacity within the private construction companies. It was a common problem for companies awarded council work, either expanding or building a new school or teachers' quarters, to fail to complete such work on time. For small construction companies, lack of capacity and unfamiliarity with remote terrains resulted in instances where they underestimated the project costs, resulting in projects being abandoned before completion. This further delayed project completion as re-tendering had to be conducted. It was further reported that some big private construction companies overstretched their capacity by being involved in too many projects at the same time. The motive was suspected to be abuse of the On-Site-Mobilisation fund, which was paid upfront to construction companies to start mobilising resources on site before the actual construction begins. This was reportedly further worsened by the absence of a mechanism within government to assess the capacity of tendering companies, before they could be awarded the work.

6 Public expenditure management and the budgetary process

The Government of Botswana finances and manages the education system through the MoE and the MLG (primary education). The MoE provides overall planning direction, supervision and general guidance through curriculum development, certification and direct financing of educational institutions, and oversees budget allocation and education policies. The MLG shares responsibility for primary education with the MoE and, through local authorities, is charged with the provision of primary school buildings, maintaining and equipping schools, supplying students with books and stationery, and the provision of teachers' houses.

In such an arrangement the degree to which public expenditure translates into better outcomes at the primary education level depends in part on the administrative arrangements that exist between the two ministries and the effectiveness of the planning, budgeting, disbursement and implementation processes. This chapter attempts to explore the governance structure between the two ministries and to look at how decisions about allocation and technical efficiency are made in the education sector. To do this, major actors involved in these areas are analysed. The chapter maps out the processes through which budgetary allocations are determined. It evaluates the effectiveness of these processes to gain an insight into the relationship between public spending and educational outcomes. The chapter also attempts to evaluate the effectiveness of planning and budgetary institutions in the implementation of sector priorities, that is, how the budgetary institutions and procedures impact on the efficiency of public education expenditure.

In order to provide a picture of how broad policy aims are implemented, detailed analysis is made which entails: looking into how public expenditure allocations to education are made; identifying those who make these decisions; mapping out how budgetary decisions within education are made; and showing how public education resources at the primary level are spent.

6.1 Governance structure: central level

The administrative organisation of Botswana's primary education system involves several levels. The central level includes the legislative and executive bodies as well as national institutions. The latter are Parliament, cabinet ministers, and the MoE and MLG and their respective departments. Within the MoE, the departments of Primary Education, Teacher Training and Development (TTD), Teaching Service Management (TSM), Examinations, Research and Testing Division (ERTD), Curriculum Development and Evaluation (CDE) and the National Council on Education, are all charged with the provision of primary education. At the MLG, the Department of Local Government and Development and its specialised units, in consultation with the Local Authorities Unit, perform and implement the primary schools budgetary provisions.

Parliament, the National Assembly, is the legislative body that adopts the laws of the country, including laws on education. Most initiatives for education laws and policies originate from the MoE. The Cabinet is responsible for examining and approving draft laws on education before they are presented to

Parliament to be debated and endorsed. Parliament also plays a very important role in the discussion and adoption of the annual budget for education and its allocation by district through the MLG.

6.1.1 The Ministry of Education

The MoE is responsible for implementing those educational policies adopted by the National Assembly.

In addition, for primary schools the MoE:

- Approves programmes and textbooks for all schools
- Defines criteria for licensing private primary schools
- Develops, approves and issues admission criteria for schools at any given cycle
- Defines period of studies in each cycle and criteria for issuing PSLE certificates
- Develops teacher training modules
- Oversees all primary schools
- Defines the structure of the academic year, the workload of the teaching staff and the average number of students per class for all levels of public education.

Within the MoE, there are a number of specialised departments dealing with primary education. The department of Primary Education is responsible for supervising, inspecting and ensuring that learning takes place in all primary schools. It achieves this through its regional education officers attached to six primary education regions, encompassing 39 inspectorial areas with a total of 763 primary schools. The Teacher Training and Development department oversees the professional development of teachers. The Teaching Service Management department is responsible for hiring and deploying teachers to schools and for the overall human resource management of teachers. The Curriculum Development and Evaluation department is responsible for developing the primary school syllabus. The chief executives and overall managers of primary education are the directors of the departments. Education officers of the Primary Education department supervise the head teachers, and head teachers supervise teachers in primary schools. Policy-making for the primary level is the sole prerogative of the National Council on Education. However, the heads of departments meetings can deliberate on policy matters and make recommendation to the Policy Advisory Committee, which would in term make recommendations to the National Council on Education. The National Council on Education was set up after its establishment was recommended by the RNPE to monitor the implementation of education policy, as well as to advise government on the education system. An additional responsibility of the National Council on Education is policy formulation, and fostering public awareness and understanding of education policy. This structure provides a fertile ground for proactive education policy even in the years to come.

Decision-making and management of activities that are geared towards achieving learning outcomes is the responsibility of the Examinations, Research and Testing Division. The roles and responsibilities of ERTD are the development of assessment programmes, developing and administering examinations, monitoring learning achievement, and conducting assessment-related research that will inform

improvement of learning achievement. The chief executive and overall manager of ERTD is the director. The National Council on Education is responsible for policy-making for this component.

Unlike in other countries, the CDE department only develops programmes (subject content) or the syllabus for primary schools, but does not write and publish textbooks and supporting literature for subjects. Publishers are provided with the syllabus and asked to write books for it. Publishers whose publications satisfy the content of the syllabus are chosen to supply such books.

6.1.2 The Ministry of Local Government

The MLG links the central level with the district level. It is charged with the provision of primary education infrastructure, represents the interests of local authorities at the central level in matters of planning and budgeting, and ensures that the local authorities execute their mandates by monitoring the way in which resources allocated to district and town councils are used. The great majority of primary schools are run by district and town councils; there are also some government-aided, mission schools and some private primary schools (English medium, as well as community-initiated Setswana medium schools).

Within the MLG, the department of Local Government and Development undertakes all of the ministry's primary education responsibilities. The department of Local Government and Development, with its two specialised units, the Education Procurement Unit and the Technical Unit, in consultation with the education secretaries and economic planners at the town and district level, undertakes the planning and budgetary procedures necessary to actualise their primary education responsibilities. The Technical Unit is charged with the construction of school buildings, the provision of furniture and equipment and rehabilitation of existing ones, and provision of teachers' housing, which are all budgeted under the local authority budget. These cover projects that have been agreed upon and prioritised in the district development plans.

The process of procuring textbooks and stationery is undertaken by the education secretaries who are guided by a primary school catalogue issued by the CDE department. The catalogue gives specific instructions on which textbooks to procure for which standards, and at what costs per pupil. The requisition forms are filled in by primary school head teachers and consolidated for the entire district by the education secretary who then present the district's request to the Procurement Unit in the MLG for tender. The Procurement Unit will then consolidate all the districts' requests and then tender

6.2 Regional level

The town and district councils are the second level of government after the central government. Each council has councillors elected by district residents, and has several central government as well as council-level departments staffed by civil servants and council employees respectively. For education, both levels of government have departments dealing with primary education. For primary education there are two people in charge per district – the principal education officer, who is an employee of the MoE, and the education secretary, who is an employee of the town or district council.

6.2.1 Principal education officers

In pursuance of its policy to decentralise the supervisory services at primary level, the MoE, through the department of Primary Education, in 2002 had 39 school inspectors under 6 education regions, overseeing 763 primary schools. Each region has its own head office, situated in district councils around the country and manned by the Principal Education Officer I, who oversees the Principal Education Officers II or school inspectors. Each education region is made up of either a district or a number of districts, which are further subdivided into education inspectoral areas. Each inspectoral area is headed by a Principal Education Officer II, and should have at least 20 primary schools. This suggests that some large districts with more than 20 primary schools including private primary schools would have more principal education officers. All the education officers are employees of the MoE and represent the MoE's interests at each designated region, that is, they ensure that all primary schools in the designated areas comply with education policies and standards. The principal education officers are also responsible for collecting information at the district level and supplying it to the MoE. Their budget, which falls under the department of Primary Education, covers their own operating expenses only; there is no funding for implementing policies.

6.2.2 Education secretaries

Education secretaries are employees of local authorities and perform the primary education responsibilities of the MLG, such as the provision of primary education facilities, for example, the construction of school buildings, the provision of furniture and equipment and rehabilitation of existing ones, provision of teachers' housing through contractors, procurement of textbooks and stationery, and the transportation needs of teachers and pupils.

The education secretary's office is a legacy from the past. Although it is restricted to the provision of infrastructure today, prior to 1976²⁶ it was also charged with employment, transfers, promotions and discipline of teachers. However, shortage of staff in the newly established unified Teaching Service Management department resulted in functions such as advertising and short-listing for positions of responsibility in primary schools being delegated to education secretaries. This was to some extent influenced by the government policy paper on rural development of 1972, which observed that to achieve national principles of democracy and self-reliance community participation should be encouraged. The policy paper regarded primary education as an essential part of rural development and advised that as far as possible primary schools should be under the supervision and management of elected bodies and closely linked to the local community. As a result, teachers' affairs were conducted by the education committees of councils, consisting of the education secretaries and elected councillors. The wisdom behind this policy was for councils to have some control over teachers as they were answerable to the public for the quality of primary education.

²⁶ In 1976 the Unified Teaching Service Management (UTSM) was established, and took over most of the council responsibilities dealing with primary teacher employment, promotions, transfers and discipline.

However, this arrangement caused dissatisfaction among teachers, as it was found that in performing their function the education secretaries through these education committees tended to influence appointments, promotions and transfers of teachers. In a conference organised by the MoE in 1987, persistent shortage of teachers' quarters were alleged to be caused by preference being given to council staff. During the conference, frustrations at MoE officials' failure to adequately provide for primary education, were blamed on the fact that the PS in the MoE had no control over local government staff, especially education secretaries and supplies officers.

There were constant conflicts and tensions between principal education officers and education secretaries over appointments of teachers, transfers and disciplinary cases. In 1990, an MLG workshop of education officers and education secretaries resolved that politicians should be excluded from all professional issues affecting the lives of teachers, such as transfers and promotions. The workshop recommended that promotion and transfer matters should be the responsibility of education officers and education secretaries. However, the RNPE observed that the workshop recommendation was not implemented and recommended that promotion and transfers of teachers should be the sole responsibility of education officers. This was effected during the implementation of the RNPE, when the MoE issued a directive spelling out the education officers' job descriptions. The directive charged only education officers with handling professional issues for teachers, such as promotion and transfer. This left education secretaries to adhere strictly to the provision of physical infrastructure. All principal education officers and education secretaries interviewed observed that their overlapping functions have since been resolved by the two ministries. The two cadres declared that they work in consultation with each other and expressed good working relations since the two ministries clarified their job descriptions.

6.3 The Inter-Ministerial Committee on Primary Education

The Inter-Ministerial Committee on Primary Education was already in place when the first NPE was implemented, and was established to monitor the joint administration of primary education between the MoE and MLG. It consisted of officers responsible for primary education in both ministries and a representative from the councils. It had been chaired by the Under Secretary in the MLG. However, the RNPE found that part of the reason why educational achievement at primary level had been declining was inadequate physical facilities and inefficient distribution of instructional material, and blamed this on, among others, the inadequate co-ordination of the administrative functions shared between the two ministries. It observed that the Inter-Ministerial Committee was not powerful enough and proposed that it be chaired by either the PS of the MoE, or his deputy, since the MoE had primary responsibility for education.

Presently, the committee is chaired by the PS of the MoE. Officials in the MoE still believe that the committee has not made any improvement in the provision of facilities as gross shortages exist all around the country.

6.4 The public expenditure management system

6.4.1 The legal framework

The legal framework for the formulation and preparation of the budget and financial management in Botswana is very similar to that which exists in many former British colonies. The presentation of the budget, authorisation of expenditure through a system of warrants, revenue collection procedures, management of ministry accounts, the methods of payments, imprests, procedures in the event of loss, award of tenders, and publication of budget-related documents are all governed by financial provisions in the Constitution of Botswana and in the Finance and Audit Act first enacted in 1970.

The Finance and Audit Act is the legal framework that ensures that the process of budgetary preparation and control is supported by sets of procedures that impose the discipline necessary for the production of a good budget and for its implementation. The law on the national budget identifies the MFDP as the main body responsible for the development of the national budget. The law says that after the budget has been approved by Parliament the transfer of funds from one line item to another or from one area to another is not allowed, with some exceptions.

6.4.2 Accountability

The Finance and Audit Act imposes legal responsibilities upon the Minister of Finance, his PS, and all accounting officers²⁷ for the proper administration and control of public money and stores. The Act sets out in elaborate detail the financial procedures that all government departments are legally bound to follow. The Act further lays down the special circumstances in which expenditure may be made in advance of appropriation, and provide for a Contingencies Fund and a Special Fund.

The Accountant-General is legally responsible for maintaining full and timely records of public expenditure and the Auditor-General has extensive independent powers of audit. His report is laid before Parliament each year and the Public Accounts Committee of the National Assembly can require any accounting officer to explain any discrepancies the audit may have uncovered. An accounting officer judged responsible for the loss of public money or stores can be held personally responsible and surcharged.

6.5 The Ministry of Finance and Development Planning

The budgetary process in Botswana is linked with the financial year, which runs from 1 April to 31 March. The preparation of the following year's budget begins around May and June after the current financial year's budget has been approved by Parliament. The Minister of Finance and Development Planning is constitutionally required to submit estimates of government revenue and expenditure to the National Assembly before the start of each financial year.

²⁷ These are mostly Permanent Secretaries in line ministries, or heads of independent government institutions.

In line with this mandate, each year the MFDP ensures that the budgetary preparation process is undertaken in line with the Budgetary Guidelines set out in the National Development Plan. The MFDP plays an important role in the formulation of the NDP. Line ministries produce their NDP ministerial chapters. In the past eight plans, the MFDP initiated the preparation of the plan by producing a Keynote Policy Paper and a Macroeconomic Outline Paper that provided economic projections for the plan period.²⁸

The Macroeconomic Outline Paper will be produced after line ministries have produced their Sectoral Keynote Issues Papers (SKIPs). SKIPs address important issues arising from the previous NDP and policy changes that need to be noted in the next one, and do not discuss projects to be undertaken. All the papers have to be discussed and endorsed by the Economic Committee of Cabinet (ECC) at various stages. In the macroeconomic outlook paper the MFDP will highlight important development issues and matters arising from the last plan, and resource projections that will be available to government and the country during the new plan period. This estimate of resource availability is used as a basis for determining expenditure ceilings for the entire plan period. The expenditure ceilings will then determine the initial allocation of resources (development expenditure, recurrent expenditure and manpower requirements) amongst ministries in line with agreed priorities.

Once the macroeconomic outlook paper had been approved by Cabinet it serves as the basis for the drafting of the plan. The MFDP will issue drafting guidelines to line ministries, which include instructions on allocations of sectoral responsibilities, operation of ceilings, incorporation of District Development Plans (DDPs), preparation of projects summaries, etc. It is only at this stage that ministries prepare project summaries, which have to fall within the development budget ceiling already set. All ministries will be expected to consult extensively with all stakeholders before drafting their chapters. The MFDP then reviews and edits drafts so as to reconcile proposals from different sectors with the resources available as a means of ensuring consistency. Contentious policy issues and conflicts over budgetary allocations are resolved at the cabinet level. The complete draft will then be submitted to Cabinet for approval. Once the draft plan had been approved by the ECC, it is tabled in the National Assembly where it is extensively debated. After all amendments have been agreed and approved by Parliament, the plan becomes the blueprint for development policy until superseded by the next NDP.

On the budgetary side, the NDP sets out manpower, recurrent and development budget growth rates as well as government revenue forecasts over the plan period. The plan then fixes national resource and expenditure ceilings distributed over the six-year plan period, by sector. It integrates policy-making with economic planning and budgeting in the context of a multi-year budget cycle, and ensures that expenditure programmes are driven by strategic priorities and undertaken within the ceilings imposed by

²⁸ Initially the plan covered a period of five years, and was rolled over midway through the plan period. The plan period has since been increased to six years, with a mid-term review. The plan determines and sets global resource allocations to all sectors of the economy over the plan period. This is done after having taken into consideration the ministerial NDP, as well as the capacity of the economy to raise financial resources, both internally and externally, to support the plan.

the plan. The guidelines are expressed in real terms, as well as in estimated current prices, based upon the projected rate of inflation over the plan period. Each year, the budget provides an occasion to review progress under the current plan, to revise ceilings and to modify policies as emerging circumstances may require. Every year, the Division of Economic Affairs in MFDP is responsible for determining any necessary adjustments to the ceilings as provided in the plan in order to express them in the prices applicable to the budget year in question. This linkage between planning and budgeting is assured by housing the Division of Economic Affairs (tasked with the production of NDPs), and the Division of Budget Administration (DBA) (tasked with the preparation of annual budgets) at the national level in the same ministry, the MFDP.

The main principles underlying budget development are: the previous year's expenditure, as Botswana follows an incremental budget system; the expected inflation rate; the expected revenues, including foreign aid; and the weight or urgency of policy priorities. Based on available resource, the DBA sets expenditure ceilings within which all sector plans must conform. The government's policy to pursue prudent fiscal policies, in order to maintain macroeconomic stability, imposes responsibilities on all ministries, including the MoE, to contain their expenditure, as set out in the NDP, and to be within the available budgetary expenditure ceilings. However, during the course of the financial year, a number of supplementary budgets to meet the shortfall in the provision for the year are approved by Parliament. The MFDP continues to be responsible for co-ordinating both the NDPs and annual budgets at the national level.

Over the years, foreign aid to the education budget consisted primarily of soft loans from different donors and various donations in the form of grants. Donor funds are channelled to projects in the plan, and they have to conform to the project expenditure ceiling suggested in the plan. Having donors fund projects that had already been planned for implementation enabled the country to reinforce its education policy priorities, rather than distort them. In many developing countries, some donors have displayed a tendency to impose upon the recipient their own priorities or preferences, which may not always be compatible with the recipient's development needs. In Botswana, the NDPs articulated the country's education priorities and, by funding projects in the plan, donors harmonised their preferences to be in line with those of the country.

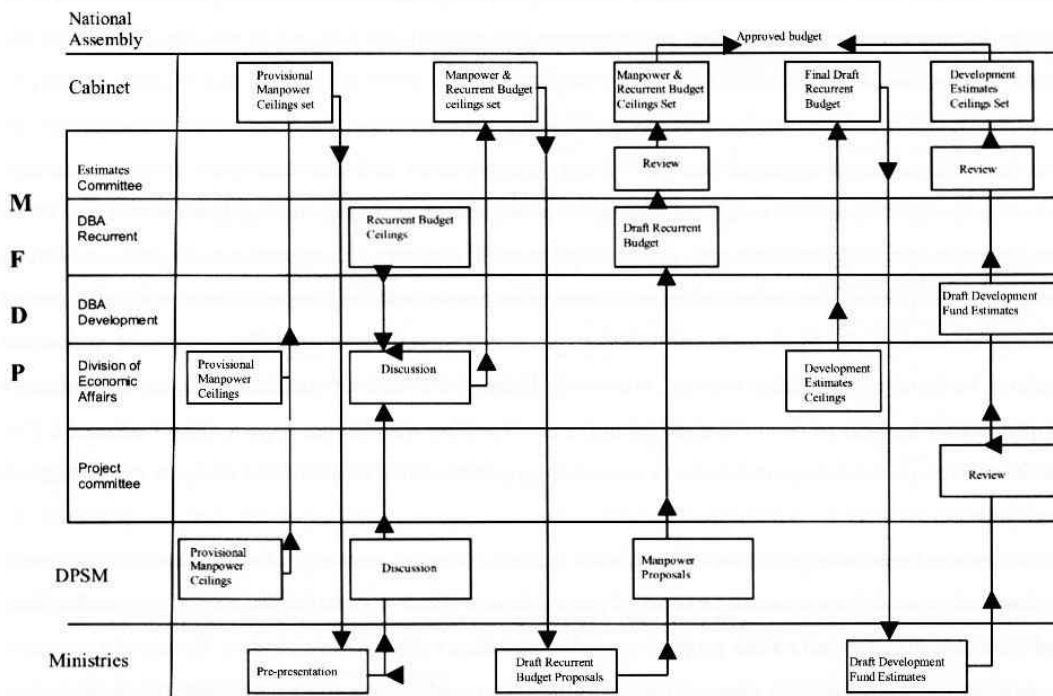
6.6 Planning and budgeting in the Ministry of Education

Planning and budgeting within the MoE is the responsibility of the PS and heads of departments, planning officers and finance officers attached within the ministry from the MFDP. Planning and finance officers within the MoE are functionally responsible to the PS of the MoE, but remain professionally responsible to the PS of the MFDP through the Secretary for Budget Administration.

The annual budget consists of two parts: estimates of recurrent revenue and expenditure, paid for from the Consolidated Fund, and Development Fund Estimates, which are paid for from the Development Fund. The system for the preparation of the recurrent budget has remained relatively unchanged since before independence. The Development Fund Estimates, which began with the NDP,

are, however, the product of the post-independence era. Resource planning takes a long process of consultation between line ministries, Directorate of Public Service Management (DPSM), the Cabinet, MFDP (which co-ordinates all the activities), and between the MoE and the National Assembly as shown in Figure 6.1. The MFDP prepares financial ceilings for all ministries and departments.

Figure 6.1 Botswana budget process from the MoE's perspective



Source: Adopted from Raphaeli *et al* 1984 and Republic of Botswana, 1996, *Planning Officer's Manual*

The education budget preparations start with the manpower budget, which each department will draft and submit to the DPSM. The DPSM will prepare the manpower ceilings (for new positions recommended for the coming year) and send them to MFDP for costing and inclusion in the financial ceilings. Ceilings are by department and are broken down into three parts: personal emoluments; add back items; and other charges. The Division of Economic Affairs advises on the forecast inflation rate for the coming year derived from the macroeconomic model. Botswana pursues incremental budgeting, as the previous year's budget forms the basis for determining the next year's budget. The process is described below.

For personal emoluments the Accountant-General's Department calculates the forecast for salaries by department as at June, that is, when the adjustment announced in April has already been incorporated. The industrial class wages are calculated by the respective departments and checked by the MFDP before being incorporated into the ceilings. The forecast salaries (payroll statement) are reconciled with the Establishment Register to ensure that posts budgeted for have been approved and are in the

Establishment Register. Variations between the two are checked with the department concerned and the DPSM before finalising the ceilings.

The ceilings are then sent to MoE departments for comment. They are expected to review the ceilings and indicate whether there is need for an increase on their ceilings before being submitted to Cabinet for approval. Changes can occur due to new government policy that necessitates the need for more funds or the creation of a new department within the ministry or transfer of a certain service from one department to another. Comments are then assessed by the Recurrent Section of the MFDP and incorporated into the ceilings or, where there are no convincing reasons to justify an increase or there is disagreement between the MFDP and the MoE department, the matter will be referred to the Estimates Committee.

The ceilings are submitted to Cabinet for approval. After approval the ceilings are sent to MoE departments for preparation of the detailed budget. The MoE is required to budget within the ceiling. There are normally above ceiling requests because of decisions that were taken after the ceilings were approved, such as upgrading of posts or any policy decision which results in the need to allocate more resources or introduction of a new service within the ministry. The budget estimates are then submitted to the MFDP for consolidation into the whole budget. The MFDP will then go through the estimates to ensure that the MoE is within the ceiling and, if there are variations, that sufficient justification has been provided and also that votes which are frozen have been maintained at the previous year's level. In most cases the ministry is brought back within the ceiling and advised to present its request for additional funding to the Estimates Committee, which will make recommendations to Cabinet.

The annual development budget is always a portion of the NDP scheduled for implementation in a particular financial year. In the MoE the preparation of the NDP starts with each department submitting, through heads of departments, its wish-list of projects to the ministerial Planning Task Force (PTF), chaired by the PS. The PTF, guided by the education policy, will prioritise projects to be undertaken within the plan period. It is the task of planning officers, working closely with the finance officer, to advise and correct departments if they submit over-optimistic papers or lobby for more money without consideration being given to their implementation capacity. The PTF will consolidate all the departmental submissions into a paper that will be widely circulated for consultation with stakeholders. This process leads to the education and training chapter in the plan. The development projects, which will be phased out according to financial years, constitute the annual development budget. The annual project review meeting is crucial for the finalisation of the development budget. The annual development budget preparation, which is co-ordinated by ministerial planning units, entails a review of the status of each project and details of the current and manpower costs associated with it. The project review meetings discuss: bottlenecks affecting projects and measures to overcome them; funding sources for each project; projects to be included and the phasing of projects for the next financial year; and monitoring of project preparation and implementation. The planning officers and heads of departments from the MoE will attend the project review if projects in their ministry are under discussion. The project review will then

agree on the figure to be included in the development estimates for submission to the Estimates Committee.

After consolidation of the budget estimates, the DBA prepares briefing notes on the budget to the Estimates Committee indicating the level of expenditures and revenues and the likely budget outturn. This assists the Committee in deciding whether to allocate additional resources or not when considering the appeals from various ministries. The Estimates Committee meetings are then convened whereby the MoE departments appear before the Committee and indicate whether they are satisfied with their budget or not. The DBA, Project Review Committee and Manpower Sub-Committee attend the meetings to advise on the recurrent, development and manpower budget estimates respectively. These are sub-committees of the main Estimates Committee.

The DBA consolidates the final budget estimates, prepares the Estimates Committee Report and the Cabinet Memorandum on the budget for approval by Cabinet. The two documents are then submitted to the Minister and Assistant Minister of Finance and Development Planning before submission to Cabinet. At the same time the Revenue and Expenditure Estimates Books are prepared. The latter have to be submitted to Parliament two weeks before the start of the Parliamentary session. After approval by Parliament, Finance Warrants are prepared by the MFDP and sent to ministries and departments as authority for accounting officers to start spending.

6.7 The Ministry of Local Government and district councils

The MLG, through the Department of Local Government and Development and district councils, undertakes primary education planning and implementation of primary education programmes that falls within its portfolio. The implementation responsibilities are taken over by the district councils. The planning and budgetary process at the district level is the responsibility of the District Development Committee (DDC). The local authorities operate under the District Development Plans, which set out the priority needs of each district. The MLG chapter in the NDP, which sets out policy strategies and both recurrent budget and development expenditure ceiling for the six-year plan period, is a consolidation of all DDPs. The DDPs have been co-ordinated by the MLG since their inception in 1977.

The preparation of the DDP is co-ordinated at the district level by the district commissioner (representing the MLG), and spearheaded by the DDC. The district officer (development), economic planners, physical planners and district land-use officers act as the secretariat of the DDC. The secretariat will consult widely with all district level and central government departments and other district and village level structures. The districts' priorities are influenced by village needs,²⁹ which are subjected to standard measures such as policy priorities, the number of school-age pupils and the infrastructure already available. The DDC will consolidate the plan and present it to council for approval.

²⁹ The village education needs can be passed to the district council by councillors and politicians. They are then verified by the district council education secretariat on the basis of whether the existing schools have reached their capacities, and therefore need additional schools, classrooms or teachers' quarters. If a small hamlet has grown into a village, it will be assessed to see if the school-age population is big enough to warrant a school.

6.8 Implementation of District Development Plans

Implementation of the DDPs depends on money allocated to local authorities from central government. Although it was envisaged that local authorities would have the option of increasing their local budgets with their own revenue collection (through taxes on various economic activities and property), this was never undertaken in any sustainable way, and as such local revenue budgets tend to be meagre (Reilly 1985). This observation was made on the basis that most local entities do not have the capacity to collect taxes due to a lack of a registration system and enforcement agencies. Even with maximum fiscal efforts, the percentage of national taxes that pertain to local governments was as low as 5–10 per cent, (Reilly 1985). Property taxes, for instance, are centrally collected and then transferred to local budgets. If insufficient resources are allocated from central government through the MLG, district planners will cut and prioritise projects for implementation during the period of the plan. Prioritised projects will then be phased for implementation and budgeted for according to financial years.

For the education sector, the plan states how many schools, classrooms and teachers' quarters are going to be built for each district, and this constitutes the development budget of each district. Thus, the capital budgets at the district level are influenced by projects to be covered in the DDPs. The recurrent budget covers the costs of supplying schools with books, stationery and other teaching materials. The books and stationery budget for each school is based on the number of children enrolled in the school, with a contingency allowance of 10 per cent more students. The textbook and stationery budget is also based on the MoE's predetermined fixed amount for textbooks and stationery per pupil. The amount was fixed at P60 per pupil in local currency units (US\$22) until 1994, when it was increased by 100 per cent to P120 (US\$44). Adjustments were made because the pupil per capita fixed amount was found to be inadequate to purchase the number of books and stationery recommended per student, as prices were higher. However, the fixed pupil per capita amount has remained at P120 since 1994 to the present, and price changes made this equivalent to US\$14.30 by the end of 2001. The inadequacy of the pupil per capita amount was expressed by MLG officials, and moves are under way to try to make necessary adjustments. The previous year's standard enrolments and a 1:40 class–student ratio for the Standard 1 intake are used to budget for books and stationery to avoid delays when schools reopen at the beginning of each school calendar year.

The process of identifying projects is spearheaded by the project management team (made up of technical officers and education secretaries) at the district level, which will identify and appraise projects to be covered in the plan period. All agreed projects, or those included in the plan, are phased and implemented according to financial years. However, in each financial year projects scheduled for implementation go through a justification process, when the project team will prepare project memorandums listing the reason why the projects are needed and their financial implications. The project memorandums are then sent to the MLG, where planning officers further appraise the projects, make any necessary alterations and submit the project memorandums to the MFDP. The planning and finance officers in the MFDP further assess the projects, to ensure that they fall within the annual departmental ceilings set out in the NDPs.

If the MFDP approves the projects funds are released for building, otherwise the project memorandums will be returned to the district council for further alterations. In a normal working situation, when funds are released by the MFDP through a letter of authorisation to the MLG, the MLG will communicate this to the districts concerned by a sub-warrant authorisation letter. That will move the district project team (comprising the education secretary, architect, engineer and quantity surveyor) to prepare and publish tender documents to invite bids for the project. The bids received are appraised by the project team, who then make appropriate recommendations to the tender committee. However, this process is not always as smooth as it sounds, as some districts reported that the MLG would often take up to three months to communicate that funds had been released to them, and often only after local politicians had questioned the delays.

Economic planners and education secretaries in district councils co-ordinate the project implementation process and source funds for the project. The project team monitors all projects to their completion. The regional education officers are only involved in the project formulation process at the project appraisal stage, when recurrent cost implications of the projects are costed, as the regional education officers are responsible for staffing matters.

However, planning officers within local authorities registered their disappointment with the planning system, which in most cases allocates them funds that are not adequate to implement their intended projects. District planners said that in drawing up the DDP, they use the population of school-age children and the projected village population to prioritise school provisions and other amenities across the district. However, before the plan is finalised it is sent to the MLG, who upon revising the plan will forward it to the MFDP, where cuts will be effected and expenditure ceilings imposed on each district. Planning officers at the central level defend the cuts on the basis of lack of capacity within local authorities, as reflected by their past implementation records, the availability of resources, and the ability of the local contractors to implement the projects. This conservative planning system of cutting planned expenditure was reported to be undermining the motivation of planners and implementers to overcome their limitations. It assumes that capacity will remain a static problem within local authorities. It was further observed that by failing to take action against defaulting companies, the system further weakens the planning and budgetary process legal statutes that should enforce efficiency in the implementation of the budget.

Expenditure ceilings are reportedly imposed at such low levels that the provision of planned projects is made impossible during the plan life. Such under-provision is reported to make both the district and national development plans unrealistic as they set targets they cannot meet. Under-provision further delays the implementation of projects, as a lot of implementation time will be consumed preparing supplementary estimates to address the shortfalls. The end results are project spillovers, which affect implementations of projects planned for the next financial year. This is reported to have rendered the planning system inadequate to address successfully and quickly the massive backlog of provision of facilities across the country, including those for primary schools.

6.9 Implementation and control of the budget

6.9.1 Disbursement of funds within the MoE and the MLG

The disbursement of the education budget, as for all ministries, is governed by the Finance and Audit Act. To cover recurrent budget expenditure, the Act provides for the withdrawal of money from the Consolidated Fund by means of a warrant signed by the minister responsible for finance. When the education budget is passed and comes into force the minister signs a general warrant and a statutory expenditure warrant, which authorise the Permanent Secretary of the MFDP to spend the education budget as shown in the estimates.

The PS of the MFDP will convey to Permanent Secretaries in the MoE and the MLG, by means of a finance warrant, how much and on what services they may spend their allocations. The two PSs will in turn, by means of a sub-warrant, issue such monies as may be required to the public officers who will actually spend. However, it remains the responsibility of the PSs in the MoE and the MLG to see to it that the warrants are spent properly and to account to the National Assembly. Withdrawal of money for the education development budget also follows a similar pattern, in which the Minister of Finance issues a general warrant to his PS, but in this case the PS does not immediately issue finance warrants. Instead the PSs in the MoE and the MLG will request finance warrants from the MFDP for the release of funds under each sub-head in the Development Fund Estimates.

By issuing a general warrant the Minister of Finance will be informing his PS that the budget and the limit of expenditure, which it has set for all sectors including education, has been passed by the National Assembly. However, the warrant may not necessarily issue the whole amount in the budget, as was demonstrated in 1982 when only 80 per cent of the amounts in the estimates were issued. This was in response to the uncertainties caused by the deteriorating world market, which occurred when the budget was being concluded. The warrant system has been credited with flexibility as it allows the PS of the MFDP to withhold funds, while sub-warrants allow accounting officers to retain precautionary reserves in their votes.

6.9.2 Expenditure control within the MoE and the MLG

Once funds have been issued, it is the duty of finance units within the ministries, to assist the PSs in the two ministries in the discharge of their responsibilities for revenue collection and expenditure management and control. The finance unit maintains vote books in which are recorded, under the correct expenditure vote, actual payments made, liabilities for goods and services ordered and sums sub-warranted. The PS has at his immediate disposal a record of the state of each allocation of expenditure for which he is responsible. The Accountant-General, who is charged with the responsibility to produce the government accounts, issues monthly statements of expenditure. The relevant sections of the monthly accounts are sent to each ministry together with a monthly over-expenditure report and these have to be reconciled with the vote books. The system provides adequate checks to minimise the possibility of over-expenditure and, since all payments are made by the Accountant-General, there is a prepayment audit.

However, the ultimate and probably most important reason for effective expenditure control lies with the accounting officers who are held personally responsible for the correctness of expenditure. This, however, is wholly dependent upon this principle being enforced. This is done by the timely production of accounts, their prompt and efficient audit and reporting by the minister to the National Assembly (and should he or she fail the Auditor-General has direct access to the Speaker). To ensure a proper examination of the accounts, the Assembly has established the Public Accounts Committee. This consists of ten members, eight from the majority party in the Assembly (one of whom is Chairman) and two from the opposition. It wields considerable power and is held in the highest respect by all PSs and other officers.

6.10 Monitoring of expenditure

The prosperity of the country is partly credited to the adequacy of its financial management, as evidenced by the steady improvement that has taken place in its overall financial position since it became independent. An important feature in the system of management is the constant monitoring of revenue, expenditure and borrowing which is carried out by the Cash Flow Unit in the MFDP. This unit produces monthly and quarterly financial reports which are distributed to all who are concerned in financial decision-making.

The monitoring of the Development Fund Estimates is the responsibility of accounting officers assisted, at least in the main ministries, by Planning Units which work in close collaboration with the Finance Unit in the same ministry. The Planning Unit is responsible to the accounting officer for the implementation of the ministry's projects and for monitoring both their financial and physical progress. Again the main emphasis is placed on avoiding over-expenditure, but where there is a building element in any project, control over progress is reasonably effective and expeditious. Most of this work is done by contract and part-payments require a certificate from the Chief Architect and the contractor's concern for the earliest payment provides an adequate spur to the Chief Architect to make frequent inspections. At the local government level, this will be performed by the project team.

The MFDP's only real monitoring tool is the annual project review, which comprehensively reviews all ongoing and planned projects. This allows for close observation of projects being implemented and for action to be taken on any problems identified. The project reviews have been found to be efficient but their effectiveness would be considerably increased if reviews were carried out at more frequent intervals. The implementation of the Development Plan must always be the main objective but the projects, in nearly every case, involve very large sums of money and it would be wasteful to disregard financial discipline. To this end the formulation of a more realistic budget and a tighter, more formalised, system of reporting, both financial and physical, should achieve a speedier and more effective realisation of national objectives and goals.

However, the preoccupation with monitoring is believed to have undermined the efficiency of expending public money. The Financial Instruction which requires all officers responsible for expenditure to exercise due economy and ensure that funds are not spent merely because they have been voted, works

against the most efficient expenditure of public money. It should not be forgotten that it is almost as grievous to underspend as it is to overspend although the consequences of the former may appear less severe. Underspending means that the extent and standard of services as laid down by the parliamentary authority are not being achieved or, if they are, then the financial provision has been over-estimated and there has been an unnecessary diversion of funds which might have been better spent. The full expenditure of votes, provided it does not involve waste, must always be attempted.

6.11 Variation of the approved estimates

Budget variations in Botswana are impossible to avoid given that the final form of the budget is completed almost three months before it comes into force. Good financial management requires strict scrutiny and control on changes in the approved budget. The system for variations in Botswana covers both the recurrent and development budget.

6.11.1 Recurrent estimates

When it is necessary to incur expenditure in excess of the amounts provided in the recurrent estimates and, provided equivalent savings can be found from another item in the same sub-head, the accounting officer may authorise reallocation by means of a virement warrant. If the reallocation involves a transfer between sub-heads (other than the personal emoluments sub-head), this requires the approval of the PS of the MFDP. All other reallocations and increased provisions can only be made by the presentation of a supplementary estimate to the National Assembly. In the circumstances, however, where there is an urgent and unforeseen need for expenditure, the President may allow issues from the Contingency Fund subject to the provision that there is money in this fund. At the earliest opportunity after such emergency expenditure has been authorised, a supplementary estimate must be sent to the National Assembly for retrospective approval and, when this is given, the issue from the Contingency Fund is replaced. These procedures provide flexibility in fiscal management without loss of control.

6.11.2 Development Fund estimates

In the Development Plan the National Assembly approves indicative figures for the total cost and annual sums needed for each project. When the project memorandum has been finalised it is likely that these figures will change. In these circumstances, the PS of the MFDP is authorised to issue funds in excess of the sum shown under a sub-head of the Development Fund estimates.

In recent years, the audit reports pointed to inappropriate use of public funds, with no action taken against the offending parties. The role of the ministry is to provide strong leadership in this area to assure partners and funders in the education sector that the guidelines and systems for verification of funds utilisation are in place, and that measures are taken against all financial impropriety in a swift and transparent manner.

6.12 Efficiency and effectiveness of the public expenditure system

6.12.1 Links between sector priorities, plans and budgets

The education budget is expressed as part of a multi-year NDP. The education chapter in the NDP is an important planning tool: it reviews performance in implementing education policies and priorities in the previous plan and devises a strategy for the education sector in the next plan period by taking policy changes into consideration. After the adoption of the NPE in 1977, all subsequent NDPs continued to emphasise and prioritise the government policy goal of achieving UPE, with a particular focus on improving quality through lower pupil to teacher ratios and large increase in the recruitment of primary teachers. The primary education budget continued to absorb most of the resources (see Chapter 4).

This suggests that the NDP's chapters on education and local authorities' DDPs have been instrumental in guiding the prioritisation of primary education and the allocation of resources to the sector. However, evidence on the implementation of budgeted projects shows that the budgetary provisions have consistently related poorly to the planned targets. This is partly reflected in consistent preparation of supplementary budget estimates and the massive backlog of unimplemented projects to date.

6.12.2 Budget performance in the education sector

One way of gauging the performance of the education budget is by assessing the absorptive capacity of the sector. In this section we consider the budgeted and actual expenditure for the development budget for the financial year 1997/8, which marked the end of NDP 7 and the beginning of NDP 8. The actual expenditure for the development budget was 94.5 per cent of the planned budget of P532 million (i.e. P503 million was spent). The sub-sectors performed as follows: headquarters 96 per cent, primary 112 per cent, secondary 95 per cent, vocational and technical education 63 per cent, and teacher training and development 79 per cent. The primary education sub-sector overspent its budget, not because all budgeted projects were completed but because failures by the construction companies to complete projects on time resulted in cost escalation that went beyond the budget. By the end of the plan period most of the planned objectives for primary education expenditure had not been achieved. The NDP 7 objectives were to provide classrooms for 80 per cent of classes and accommodation for 50 per cent of teachers. The classroom construction target for NDP 7 was set at 2,560, but only 1,496 were completed, an outturn of 58.4 per cent. The plan objectives were reportedly not achieved because of the following reasons: underestimation of enrolment figures; the increased number of repeaters; lack of capacity among the construction companies; and lack of technical and supervisory staff at the local councils. The persistent underspending of the annual expenditure budget suggests that adequate resources are available in the aggregate but are neither particularly well budgeted nor managed.

For the recurrent budget, the total outturn for the expenditure represented a performance of 98.7 per cent, that is, an outturn of P1.20 billion against the budget of P1.22 billion. The primary sub-sector registered a performance of 95.6 per cent (only expenditure within MoE). Only 99.6 per cent of the

teachers' wage bill amounting to P489 million was released (covering primary, secondary and college teachers).

6.12.3 Constraints on the disbursement and control of funds

Often inadequate disbursement due to under-budgeting and late disbursement of development funds for educational projects has resulted in insufficient time available for local councils to prepare supplementary estimates, prepare tendering documents and successfully carry out the budgeted activities at the same time. As a result some local councils have always returned unspent money to the MFDP at the end of the financial year, thus bringing into question the capacity of the planning and budgetary process in ensuring the smooth implementation of budgeted projects. Among the constraints identified as the major causes of inadequate absorption of the funds released to local councils are inadequate staff, lack of capacity among private construction companies, long tendering and late release of funds. Despite the weaknesses that make the NDPs and the annual budget fail to deliver the targeted number of classrooms and teachers' quarters, the general feeling is that, if government can take corrective measures against defaulting construction companies and recruit adequately trained staff for local councils, the current system will remain the most appropriate delivery system.

6.13 Effectiveness and problems of the planning and budgetary system

An important feature of Botswana's system is that budgeting and planning are not carried out in isolation from one another. The positive contribution of the planning and budgeting system relates to its ability to control erratic reallocation of funds from one line item or department to another because of the policy that unless a project is in the plan, it cannot be budgeted for nor implemented. The other positive aspect of the planning system over the years has been its ability to integrate aid into the overall planning process. Although the system of planning appears rigid, there are mechanisms built into the system to allow for flexibility and adjustments. Only Parliament has the authority to add new projects to the plan. The ordered flexibility and adjustments have allowed the country to conduct its plans, and to actually provide services to the country, in an environment marked by extreme unpredictability of resource availability.

The importance of planning to Botswana's development efforts, as seen through the remarkable development progress made over the years, suggests that Botswana's planning and budgetary process has been effective. One way in which the effectiveness of Botswana's planning system can be, and in fact has been, evaluated is its effectiveness in the delivery of infrastructure. For instance, the objective of the government in the earlier years of independence, shortly after minerals were discovered, was to invest mineral revenues in the development of infrastructure. There is ample evidence to show that these infrastructural developments have occurred (Harvey and Lewis 1990; Lewis 1993; Colclough and McCarthy 1980; Hope 1997; Hermans 1996). On the education side, there is no doubt that it is because of the success of the planning and budgetary model that a country which was one of the poorest in 1966 ranks third in Africa today in terms of education indicators such as the teacher-pupil ratio and the percentage of eligible school age population receiving primary education, and many more.

While there is no question about the usefulness of Botswana's planning system, particularly when judged by the impressive achievements the country has gained, there are also concerns that the model may not be effectively delivering in certain areas. There are concerns about the capacity of the system to effectively implement the projects it has formulated (mid-term review of NDP 7). A careful reading of the 1993 report of the NCE (GoB 1994), clearly illustrates that the system never paid sufficient attention to the quality of its outputs. The rate of provision of primary school facilities has remained poor since the introduction of UPE in 1980. The poor quality of teachers' accommodation and continued use of a double-shift system up to today provides ample evidence of the weaknesses of the planning and budgeting system.

The system also requires capacity to plan at all levels of government, from central to local government. However, the capacity of some districts to plan and implement sector activities is low, leading to low absorption of the disbursement from the central level. The apparent lack of legal action taken against offending parties, usually defaulting construction companies, suggests that the Finance and Audit Act is only good on paper. The systemic excess of revenues over expenditures and the ease of access to budgetary resources appear to be undermining serious budgeting in Botswana, as line ministries know that they will always spend some valuable time preparing supplementary budgets. The consequence of this has been failure to implement planned projects on time, as shown by the continuous backlogs in building classrooms and teachers' quarters that have been allowed to spill over to the next plan years.

7 Discussion on the findings

In this final chapter, the main findings are discussed relating back to the original aims of the research and pulling together material from the various aspects of the study. First, the findings and implications of Botswana's education reforms relating to UPE and the context in which they were introduced are discussed. Second, the review of how UPE has been achieved from a financial perspective and the implications of the achievement of universal access for primary education outcomes are analysed. Finally, the assessment of the effectiveness of the budgetary system to allocate resources efficiently is explored.

7.1 Commitment to UPE in Botswana

From the analysis it is evident that UPE has been a long-held goal in Botswana. However, lack of financial resources before UPE was introduced in 1980 and post-independence manpower needs led the government to channel scarce resources to expand secondary education at the expense of primary education. However, since the introduction of UPE in 1980, which came about because of increased public demand for primary education and the economic and political motives of government, significant progress has been made.

On the political front, the evidence suggests that all major political parties were committed to the early introduction of UPE, but resources did not permit it. It was only with the country's improved financial position, and increased donor assistance, that eventually the ruling party introduced UPE. The

goals for UPE in Botswana were pursued in the overall context of the country's philosophical direction, set out by the national principles of achieving unity, democracy, development and self-reliance, within the all embracing goal of achieving social justice. The national philosophy of social justice was adopted by the first National Policy for Education, which recommended UPE on the basis that for the country to achieve equitable human development all school-age children should have equal access to primary education.

At the more practical level, implementation of UPE was first covered by NDP 5, and consequently prioritised through successive NDPs. Reforms which were undertaken in advance of the introduction of UPE occurred between 1973 and 1978, and involved the reduction of school fees by half in 1973, and the massive building of primary schools from 1973 to 1978. This is observed to have been motivated by politics, rather than a genuine commitment to introduce UPE during the period. Following the introduction of UPE more efforts were elaborated in subsequent plans to provide additional classroom. To improve the quality of teaching, existing teacher training colleges underwent expansion. However, despite the budgetary provisions that prioritised the achievement of UPE, the goal remained elusive until recently. The provision of primary school facilities has lagged behind and remains a problem to date.

To improve education quality, the government, in partnership with USAID, launched the Primary Education Improvement Project at the University of Botswana in 1981. The project is believed to have had limited impact in improving the professional qualifications of teachers. The other reform related to the introduction of national service that placed senior secondary completers as untrained teachers in primary schools for a year. However, politicians interviewed are of the view that the introduction of UPE led to high enrolments and low quality education. Academics are of the view that it is difficult to talk about education quality as there are many variables to consider, and indirectly agree with politicians by arguing that it is the primary school quality of life that remained poor with the introduction of UPE.

Some policy-makers and administrators, while saying that UPE is still a priority, had misgivings about the priority of government when UPE was introduced as it pursued a manpower planning strategy that pre-assigned manpower from the university to the central government at the expense of understaffed local authorities. That is believed to have impacted negatively on the provision of primary school facilities across the country.

7.2 Access and participation

The overall pattern suggests that the primary education system achieved quantitative expansion over the period of implementing the NPE and the RNPE. The halving of school fees in 1973 had a profound impact on enrolment expansion. The introduction of UPE in 1980 resulted in an expansion in enrolment, as GERs and NERs before and after UPE were high and increasing, thus suggesting improvement in access and participation. However UPE, as defined in Botswana, remains to be achieved. While other countries define the progress towards or attainment of UPE by taking into account the GER measure, in Botswana the NER is expected to be 100 per cent before UPE can be pronounced as a goal that has been achieved.

But generally education indicators improved with the introduction of UPE. Expansion in enrolment was accompanied by more teachers recruited into the system. This resulted in the pupil–teacher ratios that were high before UPE declining to lower levels, thus highlighting improvements in school teaching conditions over the years. The drop-out rate was low and fluctuating after UPE, thus reflecting high retention within primary schools. The repetition rates were low before UPE and tended to increase slowly after UPE, which reflected a slight deterioration in the efficiency of the primary school system. Overall, low drop-out and repetition rates resulted in high but stagnant survival rates during the drive towards UPE, suggesting that improvement in qualitative measures did not result in changes in education outcomes. The fluctuation in the drop-out and repetition rates tended to delay the achievement of UPE, as defined in Botswana.

Since Botswana strives for an NER of 100 per cent, the effects of repetition and drop-outs on the NER cannot be ignored. And for the country to achieve its stated goal of having all school-age children in schools it will have to improve retention in the primary school system. Many countries have compulsory education policies, but such a policy had not been considered because of the fear that the government would not be able to provide enough places (NPE 1977). Perhaps a selective compulsory education policy is required at this time to ensure that those who enter Standard 1 complete Standard 7. This measure would not incur additional costs in teacher salaries or in facilities. A compulsory education policy is also justified on equity grounds. Many of the children who drop out come from areas with a population of low educational levels, where parental support may be weak as the value of education is not perceived. If the high drop-out rates prevail in those communities, the disparities would widen since primary education is the first level to other levels of education.

The quality of teachers measured by their academic and professional qualifications was low and declining before UPE, and started to improve slowly after UPE. The other qualitative indicator analysed was the pupil–classroom ratio, which in spite of the problems of providing primary school facilities declined from its high levels before UPE. However, efficiency of the primary school system, though improving, remained low, due mainly to high drop-out and repetition rates during the period. Limited places in secondary schools meant that only a few pupils who passed their Standard 7 examinations could be admitted. As a result many of those who were employed as teachers had not been through secondary schools. This reinforced the cycle of low-quality teaching in the system. The falling pupil–teacher and pupil–classroom ratios, although suggesting improvement in school conditions, may not have had an impact on improving learning outcomes due to low-quality teaching. This suggests the need to redouble efforts to improve the quality of primary school teaching.

7.3 Education finance and UPE

The education sector remains one of the top priorities of government. This is reflected in the large and increasing share of total expenditure and GDP allocated to the sector since the adoption of the first NPE. Although primary education expenditure as a share of total education budget and GDP tended to decline over the years, it remained the single sector allocated the largest share of the education budget. This

suggests that primary education was among the top priorities of the government over the years in spite of the fact that in the early 1980s the government's priorities shifted towards expanding secondary education. The high allocation to primary education, following the introduction of free education in 1980, made education accessible to many school-age children, as massive expansions were achieved. Resources were also allocated to the expansion of qualitative measures, as we observed that pupil-teacher and pupil-classroom ratios improved after the introduction of UPE. However, improving education indicators were accompanied by stagnant outcomes. Furthermore, we find that the achievement came at a cost, as per pupil expenditure at primary level increased. The increased expenditure and abolition of school fees, at both primary and secondary levels, appear to have benefited poor households (judged by the almost universal enrolment at primary and junior secondary level) who are the least able to pay for education services.

7.4 Equity issues and UPE

Botswana is a country in which high economic growth persists with high levels of income inequality. The poorest households are larger, with more school-age children, compared to the richest households who have fewer children. As a consequence, the increased share of the education budget allocated to primary education since the introduction of UPE led to a massive enrolment of children from poor family backgrounds. The 1993-4 HIES data suggest that the education subsidies overall were pro-poor on a per capita basis. The poorest 20 per cent appropriated 27 per cent of the total primary subsidy, compared to about 9 per cent for the richest 20 per cent. This suggests that the education subsidy was negatively correlated to household per capita consumption, and positively correlated to the number of school-age pupils in each household. However, the analysis of the 1993-4 HIES data reveals that the majority of those not attending school came from the poorest 20 per cent of the households, and more especially those residing in rural areas. In urban areas and urban-villages the enrolment rates among the poorest 20 per cent were higher than in rural areas, but remained low compared to those for higher income groups.

At district level, we find that the largest districts (Central, Kweneng and Southern), which rank among the poorest in terms of the number of poor people, have consistently had the largest population of primary-age pupils enrolled in schools. These districts have tended to attract the largest share of primary recurrent budget allocated to local authorities. The districts' pupil per recurrent expenditure tended to increase over the years, varied across districts, and have tended to be smaller among the three largest districts with a large number of pupils enrolled in primary schools, and high among towns and small sparsely populated districts which have fewer pupils enrolled in primary schools. This suggests low costs for providing primary education in large districts and high costs for sparsely populated districts and towns. The provision of facilities has tended to improve over the years but varied across districts. For example, classroom provision was a common problem across districts except in small districts closer to towns and small towns; unqualified teachers tended to be posted to remote districts; and repetition and drop-out rates were high in the poorest districts. Standard 7 examination results reveals that the quality of public education is lower in poor and remote rural districts.

7.5 The effectiveness of public expenditure management and the budgetary process

This paper has shown that the budgetary process integrates recurrent and development budgets in a six-year National Development Plan. The education budget is prepared in accordance with expenditure ceilings set in the NDP and directed according to the education goal set out in the education policy. The education budget process is consultative, involving a number of actors such as the various departments within the MoE, DPSM, MLG and local authorities, the MFDP, and Parliament. The legislature passes the budget and the MFDP disburses the funds, and there are mechanisms in place to ensure that funds are used efficiently.

However, planning officers within local authorities registered their disappointment with the planning system, which in most cases allocates them funds that are not adequate to implement their intended projects on the basis of lack of capacity within local authorities. They argued that the budgetary system undermines innovation among planners and implementers to overcome their limitations, and instead assumes that capacity will remain a static problem within local authorities. It was further observed that by failing to take action against defaulting companies, the system further weakens the planning and budgetary process legal statutes that should enforce efficiency in the implementation of the budget.

Expenditure ceilings are reportedly imposed at such low levels that they make the provision of planned projects impossible during the plan life. Such under-provision is reported to make both the district and national development plans unrealistic as they set targets they cannot meet. Under-provision further delays the implementation of projects, as a lot of implementation time will be consumed preparing supplementary estimates to address the shortfalls. The end results are project spillovers, which affect the implementation of projects planned for the next financial year. This is reported to have rendered the planning system inadequate to address successfully and rapidly the massive backlog of provision of facilities across the country, including those for primary schools

7.6 Conclusion

Lessons that emerge clearly from Botswana are that primary education expansion was gradually introduced, as government's financial resources improved and that UPE was introduced as part of a large education reform policy. The motives for its introduction were both political and economic. The introduction of UPE increased primary school enrolment massively. The government committed the largest share of the education budget towards primary education, the result of which was an improvement in education indicators such as pupil-teacher and pupil-classroom ratios. However, despite increased investment, education outcomes remain stagnant. The provision of facilities remains a problem across the country, with large variations across districts. Other inequalities are apparent. There is a considerable gap in the provision of primary school facilities and achievement recorded between towns and rural districts, with rural districts faring badly, thus suggesting the urban bias over the years. It is further clear that for Botswana to attain UPE it will have to introduce a compulsory education policy to ensure that those who enrol in Standard 1 cannot quit until they have completed Standard 7.

Appendix 1 People interviewed

| | |
|---|--|
| Honourable Ray Molomo The Speaker of the National Assembly and Former Minister of Education | Ms Nelly Senegelo Ministry of Finance and Development Planning |
| Dr Gaositwe Chiepe Former Minister of Education | Dr Bagele Chilisa Faculty of Education University of Botswana |
| Mr J.R. Swartland Former Permanent Secretary Ministry of Education | Ms Boitumelo Kgagodi Planning Officer South East District Council |
| Mr M.B. Bangale Department of Primary Education | Mr Dumisani Malenga Planning Officer Ministry of Local Government |
| Ms Boineclo Peters Ministry of Finance and Development Planning | Ms Margaret Sengwaketse Associate Researcher Botswana Institute for Development Policy Analysis |
| Mr Jerry Makgwa Ministry of Finance and Development Planning | Ms. Veronica Chiabe Education Secretary North East District Council |
| Ms Edna Namogang Procurement Officer Ministry of Local Government | Ms S.G. Sibanda Regional Education officer North Primary schools |
| Ms Keinetse Lepekoane Principal Planning Officer Ministry of Local Government | Ms W.T. Mogomela District Officer Development North East District council |
| Mr Seroro Ramohobo Department of Primary Education | Mr. Norman Motshoge Education Officer Ghanzi District Council |
| Mr J. Walker Principal Finance Officer Ministry of Education | |
| Ms Chenzimu Makobole Examination, Research and Testing | |

Appendix 2 Definitions of indicators used and data sources

Several indicators are used to assess progress in Chapter 3. These include enrolment rates³⁰ (GER, NER and the relative gender gap in enrolment ratios), examination rates and measures of the internal efficiency of the primary system (the progression, survival, repetition and dropout rates).

Enrolment ratios are widely used indicators of a country's educational capacity. They generally relate the number of students enrolled at a given age and/ or a particular level of schooling with the number of children in specific age groups. The most commonly used enrolment ratios are the gross enrolment ratio and the net enrolment ratio. The gross enrolment ratio measures the total number of children enrolled in school as a proportion of the school aged population. The gross enrolment ratio can be defined for any level of schooling and for any subset of the population. In the case of Botswana, for instance, the primary cycle lasts for seven years and the official starting age was seven years until 1988 when it was reduced to six years. However, the proportion of the six-year-olds enrolled for Standard 1 each year since 1988 have remained small compared to that of the seven-year-olds. The reason advanced for this is that parents in rural areas continue to send their children to school when they are seven years old rather than six, and as the school-age population is high in rural areas, the proportion of six-year-olds enrolled remains low. Therefore in this study the primary school-age population considered is between the ages of 7 and 13 years. The gross enrolment ratio is a good measure of the general capacity of the education system. A gross enrolment ratio of 100 per cent implies that a country has enough school places to enrol the whole of the school age population. However, the GER takes no account of over/under age enrolment. It does not clearly reflect the number of students of official school-age who are actually enrolled. Although a country may have a GER of 100 per cent or more, all children of official school-age may not be going to school, as some of those in school may be over or under official school-age.

The NER only includes those children of the correct school age in its calculation. Given how UPE is defined in Botswana, NER becomes a better measure to evaluate progression towards achieving UPE in the country. Similarly, the NER can be defined for a particular level of schooling or subset of the population. However, the NER cannot exceed 100 per cent, and is likely to be less for a country like Botswana, where a fixed entry age to each school level is not imposed. Botswana has never adopted compulsory education policies, and the actual age range of children in primary school is often much wider than the officially stated school age group. This is attributed to flexible first grade intake rules that allow children of varying ages to enrol, ranging from 5 years to 14 plus years, and to repetition policies permitted in the primary education system. Late entry and repetition will cause significant differences in the gross and net enrolment ratios. As such, both the net and gross enrolment ratios give only a partial picture of the capacity of the education system to enrol students of a particular age. The NER does not take into account students of the correct age who are enrolled in other levels of the education system, while the GER does not compare the same age groups.

³⁰ The various education statistics reports provide statistics of the children enrolled within and outside of the official age range which are used for calculating the GER and NER.

The relative gender gap is the female enrolment rate as a proportion of the male enrolment rate. The relative gender gap shows the number of girls enrolled for every boy enrolled. The promotion rate is the number of children who are promoted from one grade to the next, including repeaters. The survival rate is the promotion rate of a given cohort, and therefore excludes repeaters in each grade. The repetition rate is the percentage of children who repeat a grade once or more, while the drop-out rate indicates the number of children who completely drop out of the system. The coefficient of efficiency is a measure of how efficient the system is. Conceptually, it is the ideal number of years that a given cohort needs to graduate from a particular level, expressed as a percentage of the number of years that the cohort actually took to graduate. This indicator is affected by the repetition rates, the number of times that each student repeats, and drop-out or wastage rate. The coefficient of efficiency is, of necessity, affected by policy decisions about repetition, and is seriously undermined if the system has a high drop-out rate. This section further explores the impact of enrolment expansion on educational quality. This will be achieved by using a cross-district time series analysis.

Assessment of progress towards attainment of UPE has utilised secondary data analysis from various Education Statistics Reports. The Central Statistics Office (CSO) has routinely collected education data at the primary, secondary and tertiary levels since 1979. A number of indicators were calculated for the primary level using those data. These include enrolment indicators, internal efficiency indicators, indicators on human resource development, particularly teacher qualifications. Pupil-teacher ratios and measures of class size are also included.

Table A2.1 Primary education data for government and aided primary schools, 1968–99

| Year | Number of Schools | School % growth rate | Total enrolment | Per cent increase | Teachers | Per cent increase | Student-teacher ratio |
|------|-------------------|----------------------|-----------------|-------------------|----------|-------------------|-----------------------|
| 1968 | 257 | | 78,186 | - | 1772 | - | 44.1 |
| 1969 | 280 | 9 | 81,692 | 4.5 | 2,020 | 14.0 | 40.4 |
| 1970 | 282 | 1 | 82,754 | 1.3 | 2,264 | 12.1 | 36.6 |
| 1971 | 288 | 2 | 77,799 | -6.0 | 2,380 | 5.1 | 32.7 |
| 1972 | 294 | 2 | 80,601 | 3.6 | 2,427 | 2.0 | 33.2 |
| 1973 | 308 | 5 | 94,190 | 16.9 | 2,654 | 9.4 | 35.5 |
| 1974 | 316 | 3 | 102,202 | 8.5 | 2,993 | 12.8 | 34.1 |
| 1975 | 323 | 2 | 114,632 | 12.2 | 3,451 | 15.3 | 33.2 |
| 1976 | 335 | 4 | 123,591 | 7.8 | 3,849 | 11.5 | 32.1 |
| 1977 | 349 | 4 | 135,025 | 9.3 | 4,411 | 14.6 | 30.6 |
| 1978 | 377 | 8 | 142,821 | 5.8 | 4,545 | 3.0 | 31.4 |
| 1979 | 394 | 5 | 153,824 | 7.7 | 4,764 | 4.8 | 32.3 |
| 1980 | 415 | 5 | 169,363 | 10.1 | 5,209 | 9.3 | 32.5 |
| 1981 | 423 | 2 | 175,522 | 3.6 | 5,537 | 6.3 | 31.7 |
| 1983 | 463 | 9 | 192,534 | 9.7 | 6,101 | 10.2 | 31.6 |
| 1984 | 502 | 8 | 203,163 | 5.5 | 6,500 | 6.5 | 31.3 |
| 1985 | 512 | 2 | 217,265 | 6.9 | 6,694 | 3.0 | 32.5 |
| 1986 | 528 | 3 | 229,543 | 5.7 | 7,034 | 5.1 | 32.6 |
| 1987 | 537 | 2 | 242,239 | 5.5 | 7,392 | 5.1 | 32.8 |
| 1988 | 557 | 4 | 254,790 | 5.2 | 7,789 | 5.4 | 32.7 |
| 1989 | 559 | 0 | 267,491 | 5.0 | 8,162 | 4.8 | 32.8 |
| 1990 | 584 | 4 | 274,614 | 2.7 | 8,852 | 8.5 | 31.0 |
| 1991 | 602 | 3 | 288,396 | 5.0 | 9,299 | 5.0 | 31.0 |
| 1992 | 628 | 4 | 289,595 | 0.4 | 9,809 | 5.5 | 29.5 |
| 1993 | 643 | 2 | 295,013 | 1.9 | 10,603 | 8.1 | 27.8 |
| 1994 | 657 | 2 | 298,840 | 1.3 | 11,117 | 4.8 | 26.9 |
| 1995 | 670 | 2 | 301,240 | 0.8 | 11,286 | 1.5 | 26.7 |
| 1996 | 681 | 2 | 306,487 | 1.7 | 11,463 | 1.6 | 26.7 |
| 1997 | 700 | 3 | 307,790 | 0.4 | 11,710 | 2.2 | 26.3 |
| 1998 | 714 | 2 | 307,578 | -0.1 | 11,893 | 1.6 | 25.9 |
| 1999 | 721 | 1 | 307,457 | 0.0 | 11,067 | -6.9 | 27.8 |

Source: Various education statistics reports

Table A2.2 Enrolment rates and gender gaps for primary education, 1981–99

| | 1981 | 1986 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|--------|------|------|------|------|------|------|------|------|------|------|------|
| GER | 101 | 110 | 115 | 114 | 114 | 115 | 116 | 117 | 118 | 118 | 118 |
| Male | 95 | 106 | 113 | 112 | 114 | 115 | 117 | 118 | 119 | 120 | 119 |
| Female | 108 | 114 | 116 | 115 | 114 | 115 | 116 | 117 | 118 | 116 | 118 |
| NER | 86 | 93 | 95 | 95 | 95 | 96 | 97 | 98 | 98 | 99 | 100 |
| Male | 80 | 90 | 93 | 93 | 94 | 95 | 96 | 97 | 97 | 98 | 99 |
| Female | 91 | 97 | 97 | 96 | 96 | 97 | 98 | 99 | 99 | 99 | 100 |
| RGG | 114 | 108 | 103 | 103 | 100 | 100 | 99 | 99 | 99 | 97 | 99 |
| AGG | 13 | 8 | 3 | 3 | 0 | 0 | -1 | -1 | -1 | -4 | -1 |

Note: GER = (enrolment / population of the age group) x 100 and NER = (enrolment of the population aged 7–13 / population aged 7–13) x 100. RGG = (female GER / male GER) x 100 and AGG = (female GER - male GER).

Source: 1981 and 1991 population census reports, various education statistics reports.

Table A2.3 Primary teachers and their qualifications in government and aided schools, 1977–99

| | Total teachers | PL (%) | PH (%) | PTC (%) | Dipl. (%) | BA (%) | Others (%) | Untrained teachers (%) | Standard 7 untrained (%) | JC untrained (%) | COSC and others (%) |
|------|----------------|--------|--------|---------|-----------|--------|------------|------------------------|--------------------------|------------------|---------------------|
| 1977 | 4,411 | 27 | 12 | 22 | 0 | 0 | 39 | 41 | 79 | 19 | 3 |
| 1978 | 4,545 | 24 | 10 | 30 | 0 | 0 | 36 | 39 | 75 | 22 | 3 |
| 1979 | 4,764 | 22 | 9 | 37 | 0 | 0 | 32 | 37 | 70 | 26 | 4 |
| 1980 | 4,573 | 24 | 10 | 30 | 0 | 0 | 36 | 39 | 75 | 22 | 3 |
| 1983 | 6,101 | 14 | 5 | 60 | 0 | 0 | 21 | 31 | 62 | 28 | 10 |
| 1984 | 6,500 | 3 | 7 | 60 | 2 | 0 | 29 | 30 | 56 | 26 | 18 |
| 1985 | 6,694 | 2 | 6 | 64 | 0 | 0 | 28 | 26 | 57 | 35 | 8 |
| 1986 | 7,034 | 11 | 4 | 67 | 0 | 0 | 18 | 25 | 58 | 35 | 7 |
| 1987 | 7,392 | 11 | 4 | 67 | 0 | 0 | 18 | 28 | 58 | 34 | 8 |
| 1988 | 7,789 | 9 | 3 | 75 | 0 | 0 | 14 | 19 | 58 | 35 | 7 |
| 1989 | 8,162 | 2 | 3 | 77 | 0 | 0 | 17 | 16 | 59 | 34 | 7 |
| 1990 | 8,852 | 7 | 3 | 80 | 0 | 0 | 10 | 16 | 47 | 27 | 27 |
| 1991 | 9,299 | 6 | 2 | 74 | 0 | 0 | 18 | 13 | 45 | 25 | 30 |
| 1992 | 9,809 | 6 | 2 | 84 | 0 | 1 | 8 | 15 | 25 | 19 | 56 |
| 1993 | 10,603 | 5 | 2 | 86 | 0 | 1 | 7 | 17 | 11 | 10 | 79 |
| 1994 | 11,117 | 5 | 2 | 86 | 0 | 1 | 7 | 17 | 9 | 7 | 84 |
| 1995 | 11,286 | 4 | 2 | 85 | 0 | 1 | 8 | 14 | 11 | 12 | 76 |
| 1996 | 11,463 | 4 | 2 | 87 | 0 | 2 | 5 | 14 | 11 | 11 | 78 |
| 1997 | 11,710 | 4 | 1 | 87 | 0 | 3 | 5 | 14 | 8 | 10 | 83 |
| 1998 | 11,893 | 6 | 2 | 85 | 5 | 0 | 3 | 16 | 4 | 7 | 89 |
| 1999 | 11,067 | 4 | 1 | 84 | 6 | 1 | 5 | 9 | 6 | 7 | 87 |

Note: PL = Primary Low, PH = Primary High, PTC = Primary Teaching Certificate, Dipl. = Diploma, and BA to Bachelor degree in primary education.

Source: CSO Education Statistics, various reports

Appendix 3 Statistical analysis by district

Table A3.1 Percentage of primary enrolment by district

| | 1980 | 1985 | 1989 | 1995 | 1999 |
|---------------|------|------|------|------|------|
| North East | 5.3 | 4.7 | 4.4 | 3.9 | 3.8 |
| Central 'N' | 8.5 | 8.7 | 8.5 | 8.6 | 8.5 |
| Central 'C' | 20.5 | 18.8 | 18.4 | 17.2 | 16.9 |
| Central 'S' | 8.6 | 7.3 | 7.3 | 7.8 | 7.3 |
| Kgatleng | 6.0 | 5.2 | 4.7 | 4.2 | 4.2 |
| Kweneng | 11.5 | 12.9 | 13.2 | 13.7 | 13.4 |
| Southern | 13.5 | 13.4 | 12.9 | 11.9 | 11.2 |
| South East | 3.6 | 3.1 | 3.9 | 2.9 | 3.1 |
| Kgalagadi | 2.7 | 2.9 | 2.4 | 2.4 | 2.3 |
| Ghanzi | 1.5 | 1.7 | 1.6 | 1.6 | 1.8 |
| North West | 6.5 | 7.0 | 7.6 | 8.3 | 9.3 |
| Gaborone | 4.4 | 5.7 | 6.7 | 7.6 | 8.3 |
| Francistown | 3.1 | 3.2 | 3.4 | 4.0 | 4.4 |
| Lobatse | 2.1 | 2.1 | 2.0 | 1.9 | 1.8 |
| Selebi Phikwe | 2.0 | 2.6 | 2.6 | 3.1 | 2.8 |
| Jwaneng | 0.1 | 0.5 | 0.6 | 0.8 | 0.8 |
| Total | 100 | 100 | 100 | 100 | 100 |

Note: 'N', 'C' and 'S' refer to north, central and south educational regions found within the Central District.

Source: Various education statistics reports

Table A3.2 District development and recurrent expenditure

| | 1980 | 1985 | 1989 | 1995 | 1999* |
|----------------------------|-------------|-------------|-------------|-------------|--------------|
| Central District | | | | | |
| Development expenditure | 36.56 | 54.00 | 53.87 | 20.31 | 37.82 |
| Recurrent expenditure | 35.19 | 27.09 | 24.94 | 31.23 | 32.47 |
| Operating and maintenance | 7.37 | 3.73 | 4.35 | 5.68 | 15.80 |
| Books and stationery | 27.82 | 23.36 | 20.60 | 25.56 | 16.67 |
| Ghanzi District | | | | | |
| Development expenditure | 5.23 | 7.44 | 0.00 | 7.15 | 0.21 |
| Recurrent expenditure | 3.62 | 4.50 | 4.43 | 2.61 | 1.35 |
| Operating and maintenance | 2.19 | 3.39 | 3.24 | 1.63 | 0.51 |
| Books and stationery | 1.43 | 1.11 | 1.19 | 0.98 | 0.84 |
| Kgalagadi District | | | | | |
| Development expenditure | 5.77 | 3.85 | 0.00 | 7.68 | 8.45 |
| Recurrent expenditure | 3.10 | 3.03 | 3.86 | 4.03 | 3.45 |
| Operating and maintenance | 1.07 | 1.10 | 2.08 | 2.32 | 3.08 |
| Books and stationery | 2.04 | 1.93 | 1.78 | 1.71 | 0.37 |
| Kgatlang District | | | | | |
| Development expenditure | 6.23 | 4.57 | 0.00 | 34.64 | 4.03 |
| Recurrent expenditure | 6.03 | 5.63 | 5.37 | 5.23 | 5.43 |
| Operating and maintenance | 1.65 | 2.16 | 2.31 | 2.40 | 3.45 |
| Books and stationery | 4.38 | 3.47 | 3.06 | 2.84 | 1.98 |
| Kweneng District | | | | | |
| Development expenditure | 12.56 | 22.03 | 32.08 | 4.20 | 21.15 |
| Recurrent expenditure | 7.74 | 12.38 | 12.66 | 13.30 | 9.73 |
| Operating and maintenance | 3.05 | 3.83 | 4.10 | 2.61 | 5.62 |
| Books and stationery | 4.68 | 8.55 | 8.56 | 10.70 | 4.11 |
| North East District | | | | | |
| Development expenditure | 5.55 | 4.37 | 0.00 | 4.28 | 1.02 |
| Recurrent expenditure | 5.29 | 5.25 | 4.83 | 2.95 | 2.88 |
| Operating and maintenance | 0.70 | 2.26 | 2.13 | 0.00 | 2.22 |
| Books and stationery | 4.59 | 2.99 | 2.70 | 2.95 | 0.66 |
| North West District | | | | | |
| Development expenditure | 15.22 | 7.93 | 0.00 | 9.02 | 16.57 |
| Recurrent expenditure | 8.08 | 7.26 | 7.36 | 6.83 | 11.40 |
| Operating and maintenance | 2.62 | 2.25 | 2.89 | 0.00 | 7.84 |
| Books and stationery | 5.45 | 5.00 | 4.47 | 6.83 | 3.55 |
| South East District | | | | | |
| Development expenditure | 4.36 | 1.65 | 0.00 | 0.88 | 0.00 |
| Recurrent expenditure | 3.59 | 3.39 | 3.67 | 1.59 | 3.53 |
| Operating and maintenance | 1.23 | 1.31 | 2.19 | 0.00 | 2.25 |
| Books and stationery | 2.35 | 2.08 | 1.48 | 1.59 | 1.28 |

| | | | | | |
|----------------------------|-------|-------|-------|-------|-------|
| Southern District | | | | | |
| Development expenditure | 13.75 | 1.60 | 14.06 | 19.00 | 10.95 |
| Recurrent expenditure | 9.62 | 14.95 | 11.40 | 8.54 | 7.05 |
| Operating and maintenance | 2.41 | 5.59 | 3.44 | 0.00 | 5.81 |
| Books and stationery | 7.22 | 9.36 | 7.97 | 8.54 | 1.24 |
| Francistown Council | | | | | |
| Development expenditure | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Recurrent expenditure | 5.14 | 2.83 | 4.57 | 5.17 | 6.77 |
| Operating and maintenance | 3.55 | 2.12 | 2.36 | 2.30 | 4.58 |
| Books and stationery | 1.59 | 0.71 | 2.21 | 2.87 | 2.19 |
| Gaborone Town Council | | | | | |
| Development expenditure | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Recurrent expenditure | 7.22 | 7.45 | 9.63 | 13.08 | 8.54 |
| Operating and maintenance | 5.31 | 4.22 | 5.93 | 7.55 | 4.92 |
| Books and stationery | 1.91 | 3.22 | 3.70 | 5.54 | 3.62 |
| Selebi Phikwe Town Council | | | | | |
| Development expenditure | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Recurrent expenditure | 3.62 | 4.24 | 4.19 | 2.11 | 2.62 |
| Operating and maintenance | 2.63 | 2.47 | 2.50 | 0.00 | 1.28 |
| Books and stationery | 1.00 | 1.77 | 1.70 | 2.11 | 1.34 |
| Lobatse Town Council | | | | | |
| Development expenditure | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Recurrent expenditure | 1.76 | 2.00 | 2.15 | 1.97 | 2.61 |
| Operating and maintenance | 0.88 | 0.88 | 1.12 | 1.11 | 1.90 |
| Books and stationery | 0.88 | 1.13 | 1.03 | 0.85 | 0.71 |
| Jwaneng Town Council | | | | | |
| Development expenditure | | | 0.00 | 0.00 | 0.00 |
| Recurrent expenditure | | | 0.93 | 0.98 | 1.92 |
| Operating and maintenance | | | 0.60 | 0.62 | 1.42 |
| Books and stationery | | | 0.33 | 0.36 | 0.50 |

* 1999 figures are estimates

Source: District Councils Recurrent Budgets, City and Town Councils Recurrent Budgets, Financial Statements, Tables and Estimates of the Consolidated and Development Fund Revenues

Table A3.3 Proportion of untrained teachers by district

| | 1980 | 1985 | 1989 | 1995 | 1999 |
|------------------|-------------|-------------|-------------|-------------|-------------|
| Central 'N' | 38 | 30 | 25 | 20 | 12 |
| Central 'C' | 35 | 25 | 22 | 17 | 7 |
| Central 'S' | 34 | 27 | 28 | 22 | 7 |
| Kweneng | 39 | 31 | 24 | 15 | 13 |
| Southern | 46 | 26 | 23 | 21 | 11 |
| Francistown | 23 | 13 | 12 | 7 | 1 |
| Gaborone | 26 | 18 | 14 | 9 | 8 |
| Ghanzi | 36 | 26 | 31 | 34 | 13 |
| South East | 17 | 22 | 9 | 10 | 8 |
| Kgalagadi | 25 | 34 | 19 | 54 | 11 |
| North East | 44 | 30 | 24 | 24 | 10 |
| North West | 43 | 21 | 31 | 29 | 19 |
| Lobatse | 13 | 19 | 8 | 3 | 1 |
| Kgatleng | 40 | 26 | 9 | 34 | 10 |
| Selebi Phikwe | 32 | 22 | 11 | 8 | 5 |
| Jwaneng | 0 | 9 | 10 | 2 | 6 |
| National average | 31 | 24 | 19 | 19 | 9 |

Source: Various education statistics reports

Table A3.4 Student per classroom ratios by district

| | 1980 | 1985 | 1989 | 1995 | 1999 |
|------------------|-------------|-------------|-------------|-------------|-------------|
| Central 'N' | 51 | 49 | 50 | 51 | 46 |
| Central 'C' | 59 | 45 | 47 | 48 | 32 |
| Central 'S' | 56 | 45 | 50 | 49 | 39 |
| Kweneng | 48 | 49 | 54 | 48 | 35 |
| Southern | 57 | 52 | 51 | 44 | 35 |
| Francistown | 54 | 52 | 45 | 42 | 39 |
| Gaborone | 64 | 44 | 47 | 42 | 38 |
| Ghanzi | 41 | 35 | 31 | 31 | 28 |
| South East | 47 | 41 | 46 | 35 | 23 |
| Kgalagadi | 38 | 43 | 39 | 36 | 29 |
| North West | 58 | 51 | 51 | 47 | 41 |
| North East | 46 | 41 | 40 | 35 | 21 |
| Lobatse | 58 | 56 | 52 | 38 | 34 |
| Kgatleng | 49 | 40 | 41 | 39 | 30 |
| Selebi Phikwe | 54 | 49 | 50 | 44 | 22 |
| Jwaneng | 10 | 28 | 33 | 23 | 29 |
| National average | 49 | 45 | 45 | 41 | 33 |

Source: Various education statistics reports

Table A3.5 Percentage of classroom shortages³¹ by district

| | 1980 | 1985 | 1989 | 1995 | 1999 |
|-------------------|------|------|------|-------|-------|
| Central 'N' | 33.3 | 28.5 | 32.3 | 39.3 | 33.6 |
| Central 'C' | 43.8 | 24.4 | 29.5 | 35.3 | 9.7 |
| Central 'S' | 37.9 | 25.1 | 31.3 | 36.6 | 24.5 |
| Kweneng | 34.6 | 31.8 | 36.5 | 36 | 15.9 |
| Southern | 44.2 | 38.7 | 37.2 | 33.1 | 20.8 |
| Francistown | 27.2 | 24.9 | 21.6 | 19.8 | 21.1 |
| Gaborone | 37.2 | 16 | 22 | 24.1 | 18.1 |
| Ghanzi | 20.7 | 19.7 | 7.1 | 18.5 | 9.8 |
| South East | 22.1 | 13.7 | 16 | 7.6 | -25.6 |
| Kgalagadi | 31.8 | 26.7 | 26.8 | 30.8 | 18.7 |
| North West | 47.7 | 39.7 | 37.4 | 37.6 | 27.1 |
| North East | 33.9 | 26.1 | 24.2 | 19.2 | -26.2 |
| Lobatse | 33 | 27.4 | 25.2 | 6.7 | 3.9 |
| Kgatlang | 36.8 | 22.9 | 18.8 | 23.7 | 3.8 |
| Selebi Phikwe | 28.4 | 21.9 | 24.2 | 21.9 | -39.2 |
| Jwaneng | 25 | -7.5 | 14.3 | -13.8 | 3.1 |
| National shortage | 38 | 28 | 29.7 | 30.7 | 16.2 |

Source: Various education statistics reports

Table A3.6 Repetition rates by district

| | 1980 | 1985 | 1989 | 1995 | 1999 |
|------------------|------|------|------|------|------|
| Central 'N' | 11.4 | 8.5 | 6.1 | 5.7 | 6.9 |
| Central 'C' | 21.4 | 19.6 | 16.4 | 18 | 18 |
| Central 'S' | 8.8 | 6.3 | 7.4 | 7.9 | 5.8 |
| Kweneng | 7.8 | 13.2 | 12.9 | 12.2 | 12.2 |
| Southern | 11.4 | 16.2 | 17.2 | 13 | 11.2 |
| Francistown | 2.7 | 3 | 2.1 | 5.1 | 2.4 |
| Gaborone | 3.6 | 4.6 | 6.3 | 5.9 | 5 |
| Ghanzi | 2.4 | 1.3 | 1.5 | 1.8 | 2.7 |
| South East | 5.7 | 1.6 | 1.8 | 1.4 | 2.7 |
| Kgalagadi | 4.6 | 4.2 | 4.1 | 4.2 | 3.7 |
| North West | 6.3 | 6.6 | 7.5 | 10.2 | 16 |
| North East | 4.1 | 3.9 | 3.2 | 2.2 | 2.1 |
| Lobatse | 1.2 | 2.9 | 3.2 | 1.2 | 1.2 |
| Kgatlang | 6.5 | 5.1 | 7.9 | 5.4 | 5.5 |
| Selebi Phikwe | 1.9 | 2.6 | 1.9 | 3.2 | 2.3 |
| Jwaneng | 0 | 0.7 | 0.3 | 1.8 | 1.5 |
| National average | 6.3 | 6.3 | 6.3 | 6.2 | 6.2 |

Note: 'N', 'C' and 'S' refer to north, central and south educational regions found within the Central District.

Source: Various education statistics reports

³¹ Classroom shortages per region are obtained by subtracting physical classrooms available from classes made up of students enrolled. Percentage shortages are derived from dividing classroom shortages by the total number of classes in the region. A negative percentage reflects excess classrooms over classes.

Table A3.7 Drop-out rates by district

| | 1980 | 1985 | 1989 | 1995 | 1999 |
|------------------|------|------|------|------|------|
| Central 'N' | 18.8 | 11.8 | 6.6 | 10.8 | 7.3 |
| Central 'C' | 10.5 | 18.9 | 18 | 18.1 | 16.7 |
| Central 'S' | 8.1 | 6.9 | 7.4 | 8.2 | 6.8 |
| Kweneng | 12.6 | 11.6 | 17.1 | 18.5 | 20.4 |
| Southern | 21 | 17.7 | 15.4 | 13.5 | 13 |
| Francistown | 7.5 | 1.1 | 0.5 | 4.9 | 1 |
| Gaborone | 0.3 | 6.3 | 3.8 | 4.7 | 2.2 |
| Ghanzi | 1.1 | 1.8 | 4.5 | 2.4 | 6.4 |
| South East | 1.2 | 1.3 | 2.1 | 0.5 | 1 |
| Kgalagadi | 3.5 | 3.3 | 5.2 | 3.8 | 3.7 |
| North West | 3 | 5.7 | 6 | 8.9 | 14 |
| North East | 6.9 | 2.5 | 4.1 | 1.6 | 1.8 |
| Lobatse | 0 | 1.9 | 1.9 | 1.2 | 0.6 |
| Kgatlang | 2.7 | 2.5 | 3.1 | 2.1 | 2.4 |
| Selebi Phikwe | 2.9 | 5.4 | 1.6 | 0.6 | 2.6 |
| Jwaneng | 0 | 1.2 | 2.8 | 0 | 0.1 |
| National average | 6.3 | 6.2 | 6.3 | 6.2 | 6.3 |

Note: 'N', 'C' and 'S' refer to north, central and south educational regions found within the Central District.
Source: Various education statistics reports

Table A3.8 Regional trends in education outcomes by Standard 7 pass rates

| | 1980 | 1985 | 1995 | 1999 |
|------------------|------|------|------|------|
| Central | 64 | 67 | 63 | 72 |
| Kweneng | 75 | 78 | 72 | 79 |
| Southern | 83 | 67 | 67 | 76 |
| Francistown | 55 | 84 | 83 | 86 |
| Gaborone | 77 | 87 | 87 | 88 |
| Ghanzi | 54 | 57 | 43 | 63 |
| South East | 64 | 82 | 79 | 84 |
| Kgalagadi | 68 | 66 | 58 | 74 |
| North West | 82 | 64 | 74 | 77 |
| North East | 79 | 79 | 84 | 85 |
| Lobatse | 77 | 79 | 84 | 80 |
| Kgatlang | 70 | 71 | 72 | 82 |
| Selebe Phikwe | 66 | 75 | 74 | 85 |
| Jwaneng | | | | 89 |
| National average | 68 | 72 | 70 | 79 |

Source: Various education statistics reports.

Table A3.9 Regional trends in education outcomes by grades

| | 1980 | | | | 1985 | | | | 1995 | | | | 1999 | | | | |
|---------------|--------|-----|-----|-----|--------|-----|-----|-----|--------|-----|-----|-----|--------|-----|-----|-----|----|
| | Grades | | | | Grades | | | | Grades | | | | Grades | | | | |
| | A | B | C | D | A | B | C | D | A | B | C | D | A | B | C | D | E |
| Average level | 5% | 25% | 38% | 32% | 6% | 28% | 38% | 28% | 8% | 24% | 38% | 29% | 10% | 30% | 39% | 21% | 2% |
| North East | 4 | 32 | 43 | 22 | 4 | 37 | 38 | 21 | 10 | 35 | 39 | 15 | 9 | 35 | 41 | 14 | 1 |
| Central | 4 | 23 | 37 | 36 | 5 | 25 | 38 | 33 | 6 | 20 | 37 | 37 | 7 | 26 | 39 | 25 | 2 |
| Kgatlang | 5 | 26 | 39 | 30 | 5 | 25 | 40 | 29 | 10 | 26 | 36 | 28 | 10 | 33 | 39 | 17 | 1 |
| Kweneng | 5 | 30 | 40 | 25 | 5 | 32 | 40 | 22 | 7 | 23 | 42 | 27 | 10 | 29 | 40 | 19 | 2 |
| Southern | 17 | 36 | 30 | 17 | 4 | 25 | 38 | 33 | 5 | 22 | 40 | 32 | 8 | 29 | 39 | 22 | 2 |
| South East | 2 | 22 | 40 | 35 | 17 | 38 | 28 | 18 | 11 | 27 | 41 | 22 | 14 | 36 | 34 | 14 | 2 |
| Kgalagadi | 2 | 25 | 41 | 32 | 4 | 26 | 36 | 34 | 3 | 17 | 38 | 42 | 6 | 26 | 42 | 25 | 2 |
| Ghanzi | 1 | 14 | 39 | 47 | 2 | 16 | 39 | 43 | 2 | 11 | 30 | 57 | 4 | 20 | 39 | 34 | 2 |
| North West | 10 | 37 | 35 | 18 | 2 | 24 | 37 | 36 | 5 | 24 | 45 | 27 | 6 | 27 | 44 | 21 | 1 |
| Gaborone | 6 | 32 | 39 | 23 | 17 | 34 | 36 | 13 | 21 | 34 | 32 | 13 | 18 | 36 | 34 | 11 | 1 |
| Francistown | 2 | 16 | 37 | 44 | 8 | 38 | 37 | 16 | 15 | 33 | 35 | 16 | 15 | 36 | 35 | 14 | 1 |
| Lobatse | 9 | 35 | 33 | 23 | 11 | 32 | 36 | 21 | 12 | 29 | 43 | 15 | 11 | 31 | 38 | 19 | 1 |
| Selebi Phikwe | 6 | 20 | 40 | 34 | 9 | 29 | 37 | 25 | 10 | 24 | 40 | 26 | 14 | 40 | 31 | 14 | 1 |
| Jwaneng | | | | | | | | | | | | | 26 | 35 | 28 | 10 | 1 |

Source: Various education statistics reports

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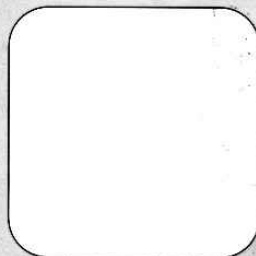
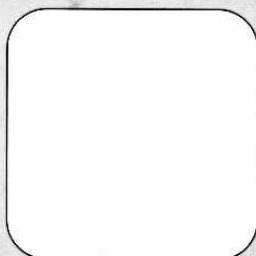
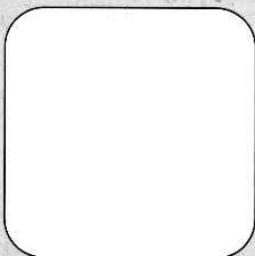
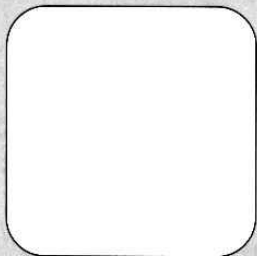
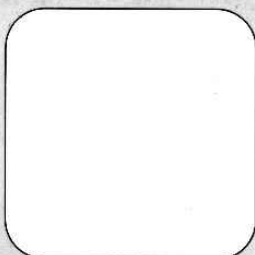
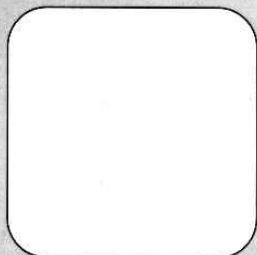
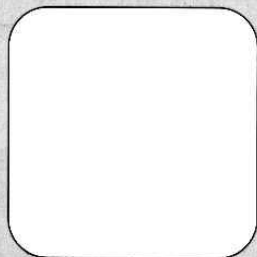
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The international development target of achieving primary education for all by 2015, which has recently been reaffirmed, contrasts sharply with experience in sub-Saharan Africa, where education enrolments and quality in about half of the countries in the region have deteriorated since 1990. It has been argued that, in some cases, this has been caused by under-spending by governments on primary schooling, and in others, significant changes in the cost structure of education provision are required to make education for all affordable.

The report presents the Botswana country case-study findings from a wider research project aiming to explore the relationship between public education spending and education outcomes at the primary level in developing countries. Case studies were also carried out in Uganda and Malawi. The case-studies provide important insights into how primary school expansion has been achieved from a financing perspective and practical lessons for other African countries attempting to achieve primary education for all. A synthesis report, comparing the experiences in the three case-study countries is also available.



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