

MUSTER

Multi-Site Teacher Education Research Project

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Discussion Paper

10

Costs and Financing of
Teacher Education in
Lesotho

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Multi-Site Teacher Education Research Project (MUSTER)

MUSTER is a collaborative research project co-ordinated from the Centre for International Education at the University of Sussex Institute of Education. It has been developed in partnership with:

- The Institute of Education, University of Cape Coast, Ghana.
- The Institute of Education, The National University of Lesotho.
- The Centre for Educational Research and Training, University of Malawi.
- The Faculty of Education, University of Durban-Westville, South Africa.
- The School of Education, The University of the West Indies, St. Augustine's Campus, Trinidad.

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MUSTER is focused on generating new understandings of teacher education before, during and after the point of initial qualification as a teacher. Its concerns include exploring how new teachers are identified and selected for training programmes, how they acquire the skills they need to teach effectively, and how they experience training and induction into the teaching profession. The research includes analytical concerns with the structure and organisation of teacher education, the form and substance of teacher education curriculum, the identity, roles and cultural experience of trainee teachers, and the costs and probable benefits of different types of initial teacher training.

MUSTER is designed to provide opportunities to build research and evaluation capacity in teacher education in developing countries through active engagement with the research process from design, through data collection, to analysis and joint publication. Principal researchers lead teams in each country and are supported by three Sussex faculty and three graduate researchers.

This series of discussion papers has been created to provide an early opportunity to share output from sub-studies generated within MUSTER for comment and constructive criticism. Each paper takes a theme within or across countries and offers a view of work in progress.

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ABSTRACT

This monograph explores the costs and financing of teacher education in Lesotho. First it develops an overview of the national context for teacher education and profiles the education system. Second, it describes the teacher education system and identifies recent trends in development. Third the system of funding is analysed. Fourth, aspects of the internal efficiency of the NTTC are explored. Fifth, data on the selection of trainees and their subsequent performance are discussed. Sixth, information on the utilisation of newly qualified teachers is presented. Seventh, an analysis is developed of the characteristics of supply and demand for new teachers and the costs of meeting the training needs created by planned educational development. The last section reaches some preliminary conclusions, which are as follows. Firstly, there is a need to continuously monitor enrolment growth and teacher supply and demand, as current supply is insufficient. Secondly, the costs of expanding existing training provision are unsustainable. Thirdly, in light of the fact that more new teachers need to be trained at lower cost, NTTC could significantly improve internal efficiency and consider reducing the length of full-time tuition during training and increasing teaching practice; a greater degree of autonomy may also assist in this goal. However, even with changes NTTC is unlikely to be able to meet demand so there is a need to consider alternative approaches to teacher training, such as mixed-mode distance delivery.

CHAPTER 1

OVERVIEW OF NATIONAL ISSUES

Lesotho is a small land locked country surrounded by South Africa. It occupies an area of 30,355 Sq.Km and its population was estimated to be 2 million in 1995 (Bureau of Statistics 1996:76) with a historic growth rate of about 2.6%. Much of the country is mountainous and the population is concentrated in low lying areas close to the border. Only 24% of the population is urban and life expectancy has reached 59 years. The majority population are Basotho and use Sesotho and English for communication and for official purposes.

In 1995 the GNP per capita of Lesotho was \$170 (\$1780(PPP) and it had grown at about 1.5% per annum over the previous decade. The gross enrolment rate (GER1) at primary level was 92% for males and 105% for females, and at secondary level 22% and 34% respectively. Primary enrolment rates appear to have been dropping over the last decade (GER1 110% – 99%) whilst enrolment rates at secondary have increased modestly (GER2 23% - 28%). Dependency rates are high with the 0-14 year old population constituting 78% of the population 15 years – 65 years old. Adult literacy was estimated at about 55% for females and 38% for males in 1996 (Bureau of Statistics 1996:41). These figures showed no change since the 1985 National Literacy survey. The estimates of illiteracy are thought to be over estimates and some sources (e.g. UNDP 1999) give lower estimates¹. About 30% of males and 15% of females have no schooling, and a further 30% of both have only completed grades 1-4. Access to schooling remains problematic for remote groups located in the mountains and for parents who cannot afford to pay fees.

Economically Lesotho is very dependent on South Africa. In the 1980s as many as 160,000 workers, constituting over half of the male labour force, were employed in South Africa mainly in mines. Their remittances accounted for over 40 % of Lesotho's GNP. Large numbers of Basotho miners have been retrenched as the mines have contracted and South African migration policy has changed under the new democratic government. As a result unemployment has risen and is now estimated to be as high as 50% of the labour force (Education Sector Development Plan 1998/99 – 2000/2001). The Lesotho government is considered to be the largest domestic employer. Government employed about 10,000 teachers and 15,000 civil servants in the early 1990s, which can be compared to manufacturing which accounted for a total of about 14,000. 161,000 people were in the informal sector while casual labour supports a further 6,000 households.

Since democratisation in South Africa in 1994 migration to South Africa has favoured the highly qualified who have been able to move to more lucrative jobs in those parts of the South African economy which are experiencing acute shortages of African professionals. It is also the case that some parents have taken advantage of kin relationships amongst the Basotho people to arrange for children to be educated in South Africa. As a poor agricultural and pastoral society the Lesotho economy is

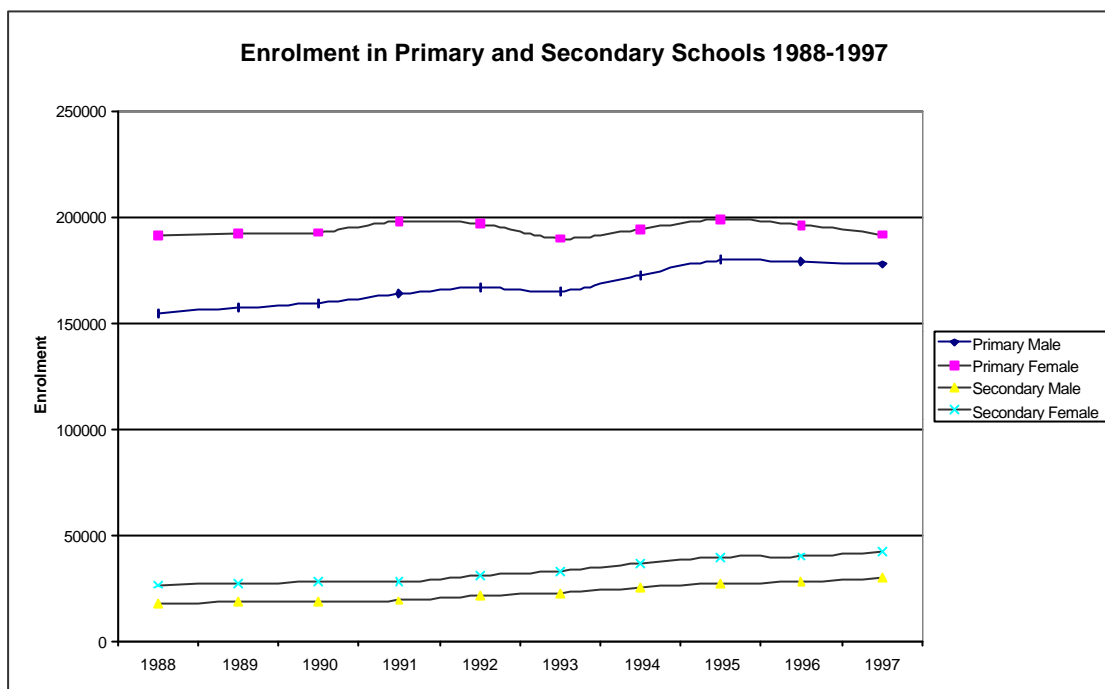
¹ The reliability of and source of these estimates is not clear.

vulnerable to the vagaries of the climate. It has also suffered in the recent past from a degree of political instability and occupation by South African armed forces. The Highlands Water Scheme, which supplies water to South Africa, has become a major source of government revenue, though it employs relatively few people.

The education system of Lesotho has developed from missionary and colonial origins in the nineteenth century. Since independence in 1966 it has been substantially reshaped to reflect the aspirations of the Basotho people. Education remains a joint venture between the government and the churches. The latter own and operate 97 % of the primary and 86 % of the secondary schools. The Sixth National Development Plan (1997) makes it clear that the legal framework, financial and academic control of the formal education and training system are vested in the Ministry of Education. The Ministry therefore provides teacher training and pays government teachers salaries. It is also responsible for formulating educational policies, laws and regulations governing schools, providing infrastructure, developing, monitoring, implementing curricula and providing supervision of teaching through an inspectorate. The Churches are represented on many committees including the Advisory School Committee, the Teaching Service Commission, the Joint Reference Committee and the National Curriculum Committee. Their Education Secretariat organises and manages learning in their respective schools. The Churches appoint teachers whose salaries are not paid by government. The only university in the country, the National University of Lesotho (NUL), is administered by an independent Council. The MOE provides the bulk of its recurrent budget and is represented on the University council.

The Lesotho education system consists of seven years of primary education, five years of secondary education (three years of junior secondary and two years of senior secondary) and four to six years of higher education. The education pyramid continues to be very broad at the primary level and very narrow at tertiary. Of the 445,000 students participating in formal education 368,900 (83 %) are enrolled at the primary level; 71,500 (16%) at the secondary level and 4,600 (1 %) at tertiary level (Education Statistics, 1997:2). The evolution of enrolments is shown in the Figure 1.

Figure 1: Enrolment in Primary and Secondary Schools 1988 - 1997



Enrolment at primary has grown at a slow rate over the period, increasing by only 6% over 10 years. In the most recent period it has declined. Secondary enrolments have expanded more smoothly by more than 70% over the same period. Gender disparities in enrolment are apparent at both levels with females consistently favoured. These differences have diminished slightly at primary but have grown at secondary.

It has been suggested that the fall in primary enrolments is related to migration to South Africa and to the arrangements made with relatives to school some children in South Africa where it is believed standards may sometimes be higher and that fees can be less expensive. There is no data which enables these speculations to be tested though both undoubtedly have some effect. The 1996 census does show that the size of the school age group was declining in the mid 1990s. Whilst the number of 12 year olds was about 52,700, the population of 6 and 7 year olds was estimated to be only 45,000 (Bureau of Statistics 1996:31). Some part of the reason for declining enrolments is therefore likely to be linked to these reductions in the size of the age group. Lesotho is located in a region with some of the highest incidences of HIV/AIDS in the world and it may be that part of the reduction in the size of the school age cohort is also related to lowered fertility. UNDP (1999) reports data that shows that amongst blood donors 11% of high school students and 21% of adults are sero-positive. This suggests that rates in the general population including teachers are unlikely to be much lower. This will have a significant impact in enrolment growth rates over time as fertility declines. It may have a more immediate impact of teacher attrition depending on what rates of infection actually apply.

Lesotho has 1,259 primary schools catering for 368,900 pupils. 8,100 teachers are employed resulting in an average pupil-teacher ratio of 45.6:1 Of these teachers 22.5% are unqualified. As noted above most schools are under the management of Church authorities as Table 1 shows.

Table 1: Distribution of Schools by Proprietor 1997

Name of Proprietor	No. of Primary Schools	No. of Secondary Schools
Government & Community Schools	30	16
Lesotho Evangelical Church (RCC)	476	61
Anglican Church of Lesotho (ACL)	173	32
Roman Catholic Church	505	73
AME	23	5
Other Missions	33	8
Total	1240	195

Source: Ministry of Education Statistical Report 1995

The fifth Five-Year Education Sector Development Plan, 1991/92 – 1995/96, sought to improve the quality of primary education by reducing pupil-teacher ratios. During the plan period the pupil-teacher ratio was reduced from nearly 60:1 in 1988 to 46:1 in 1997. Through a massive classroom construction programme the pupil classroom ratio was reduced from over 100 to 71:1. The number of teachers per class averages about 1:1. At secondary level pupil-teacher ratios have risen slightly from 20:1 to 23:1, as have classroom pupil ratios from 37:1 to 41:1. The number of teachers per class is between 1.7 and 1.9:1 (See Figure 2).

The age distribution of pupils is wide (Figure 3). The MOE admissions policy for Standard 1 is that children must be 6 years old when they begin primary education. There are situations where pupils start either below or above 6 years old. In extreme cases, children might be as old as 16 years when they enrol for the first time in primary education. Most of the children who start school late are male. This is often because they are involved in looking after livestock.

Figure 2: Pupil-teacher Ratios and Class Teacher Ratios 1988 - 1997

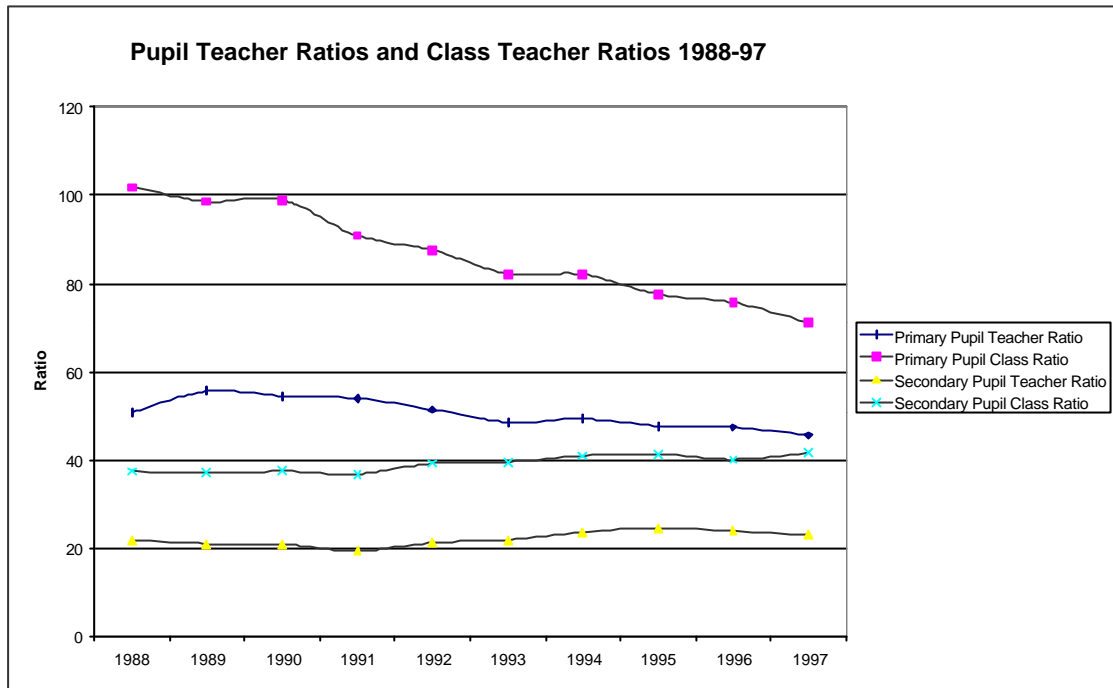
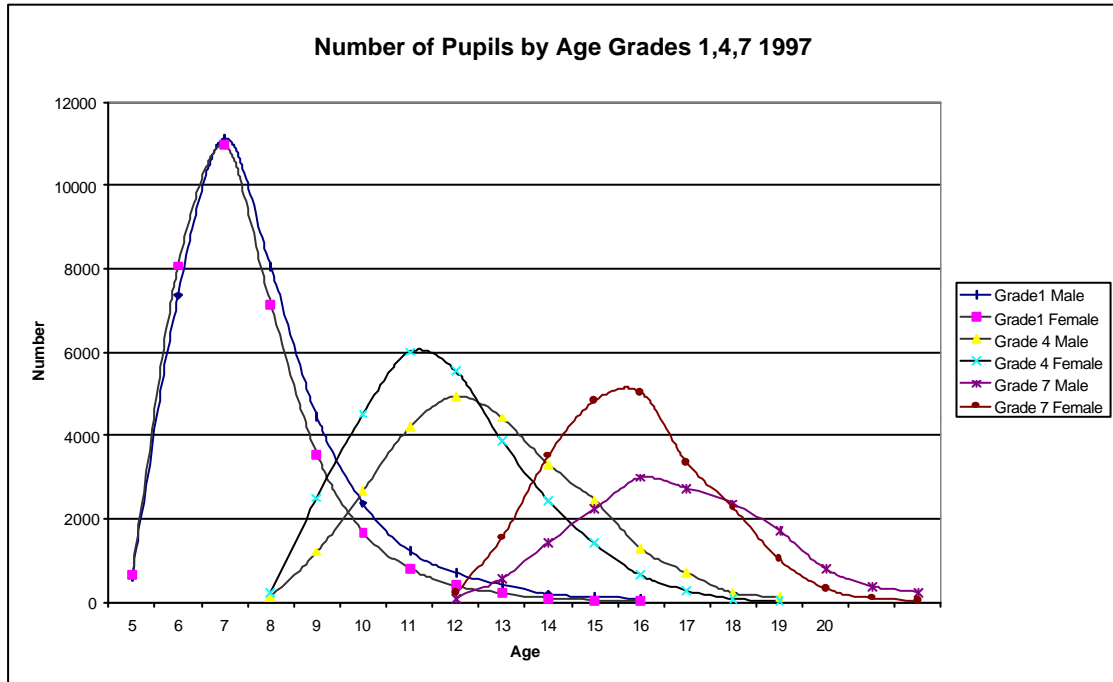


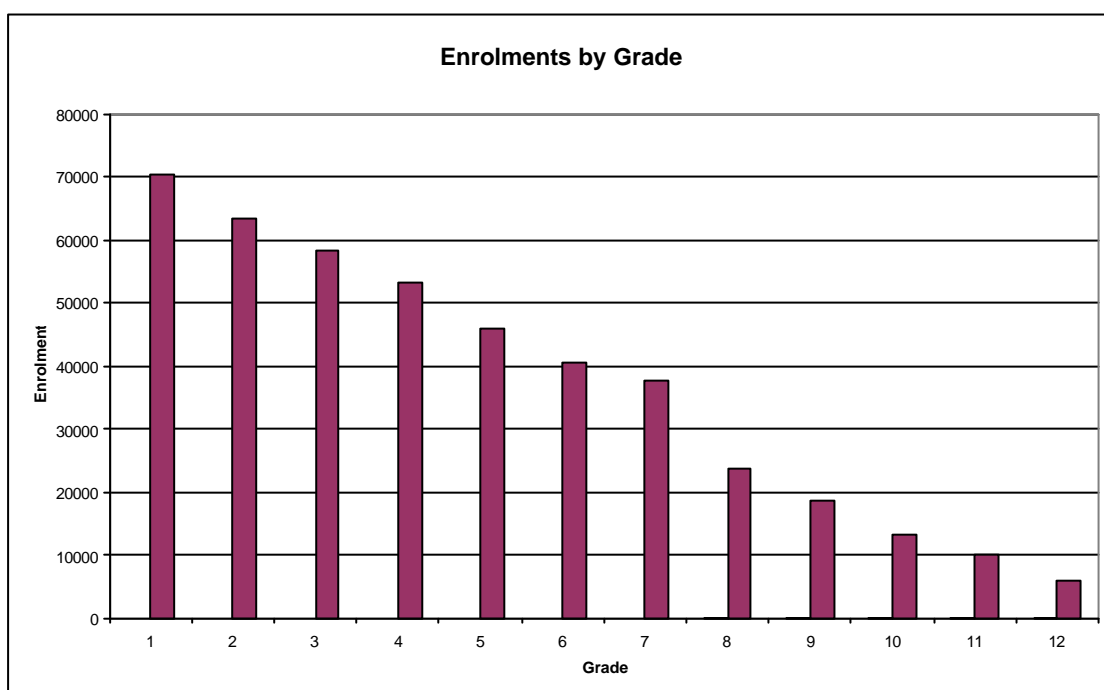
Figure 3: Number of Pupils by Age Grades 1,4,7 1997



Rates of repetition and dropout are high and continue to represent a major source of inefficiency. Both are related to the quality of instruction and hence the effectiveness of teacher education. Cohort analysis indicates that of 1000 pupils entering grade 1,

only about 450 will complete grade 7 (Bureau of Statistics 1996²). The average primary graduate will have spent nearly nine years in the system, and the average dropout only 4 years. On average over 20% of students are repeating grades. Dropout is high in grades 1 and 6 (10%) and averages 7.5% over the primary cycle. At secondary level enrolments in grade 8 (Form A), the first year of secondary, are 23,500. By grade 11 these have dwindled to 10,000 and at the end of secondary (grade 12) to 5,900. Thus as many as 33% of students dropout over the first three years and a further 24% after the fourth year. The pattern of enrolments by grade shows how steep the decline in participation is (Figure 4).

Figure 4: Enrolments by Grade



Repetition rates have not been declining significantly. In 1996 the pattern by grade was as shown in Chart 5. It can be seen that repetition is consistently higher for males than females. It is greatest in grades 1 to 4, and increases in grade 7 as a result of examination retaking. Average rates of repetition do not seem to have fallen much since 1993 when there was a campaign to reduce the amount of repetition. The only significant changes subsequently have been in an increase in the rate for grade 7 related to the PSLE examination. Some repetition is the result of pupils returning to school to re enrol after a period and being placed in the class they last attended for a second year, rather than that more appropriate to their age. The argument is that these pupils will not cope with higher level work after a break from schooling.

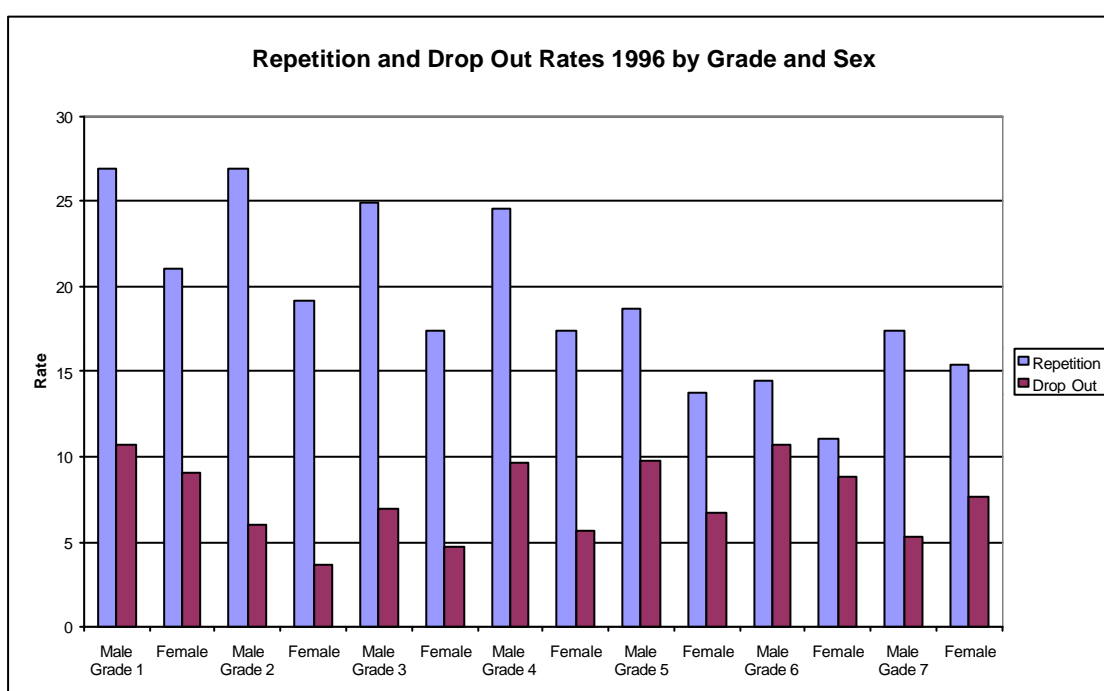
Repetition is a result of school level decisions on whether to promote pupils based on school tests at the end of each grade. These tests are not standardised and it is likely that decisions on repetition are made on different standards in each school. The amounts of repetition reflect some consensus amongst teachers about the proportion

² Other analyses put the graduation rates higher though arrive at similar average years for graduation and drop outs (MOE Planning and Statistics May 1997 Indicators for Educational Planning and Policy Formation).

of pupils who have failed to assimilate the curriculum sufficiently to proceed to the next grade. Rates over 25% suggest that there is a curriculum issue, and a learning and teaching problem. If more than one in four children fail to reach a minimum level to proceed in some grades then learning is not effective for as many as a quarter of all children. Arguably the curriculum is inappropriate for the capabilities of these pupils and/or the delivery of the curriculum fails to recognise their learning needs sufficiently. At the very least this is an issue that teacher education needs to consider seriously.

Dropout rates are also shown in Figure 5. Again these are consistently higher for males than females. They are greatest in grade 1, and in grades 4,5, and 6. Dropout rates appear to have risen from 1993 to 1995 in all grades. The reasons for this are not clear. There may be an effect related to the democratisation of South Africa if significant numbers of children were placed in schools in South Africa. It may also be that austerity has resulted in a marginal decline in enrolment related to inability to pay school fees. There is no systematic data that enables the reasons for dropout to be unpacked. However, as elsewhere several studies show a clear relationship between poverty and dropout so it is plausible that rising school fees in the context of a stagnant economy may have been a contributory factor.

Figure 5: Repetition and Dropout Rates 1996 by Grade and Sex



Promotion rates between grades in primary schools have fallen slightly since 1993. This is a direct consequence of increased dropout. These rates are consistently higher for females (Table 2). In several grades female promotion rates are fully 10 percentage points better than those for males. Nearly 40% of males are not promoted from grade 1 to grade 2 each year.

Table 2: Promotion Rates by Grade and Sex 1996

	Grade 1		Grade 2		Grade 3		Grade 4		Grade 5		Grade 6		Grade 7	
	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.
Prom. Rate	62.4	69.9	67.1	77.3	68.2	77.9	65.9	77	71.6	79.5	74.8	80.2	77.3	77

At the end of the primary cycle pupils sit the Primary School Leaving examination which determines selection into secondary school. Average pass rates for 1995-97 were about 76% (Table 3). These pass rates were lower than those in the early 1990s which tended to fall between 85% and 90%. The number obtaining first class passes was around 9%, second class 16% and third class 51%.

Table 3: Pass Rates for the Primary School Leaving Examination 1995-97

	Enrolment in Std 7	No. Sitting	1st Class	2nd Class	3rd Class	Pass Total	No Failed	% Passed	% of Enrolment Passed
1995	35798	35018	2764	4619	17774	25157	9875	71.8	70.3
1996	39271	38216	3762	7744	18774	30280	7936	79.2	77.1
1997	38418	36885	3217	5458	19955	28630	8255	77.6	74.5
Average	37829	36706	8.8	16.2	51.3	76.3	23.7	76.2	74.0

In 1996 the transition rate into grade 8 was 70% and the claimed net enrolment at secondary 31%. The Junior School Certificate is held at the end of the lower secondary cycle (grade 10) and typically about 70% pass. Those who survive to grade 12 take the Cambridge Overseas School Certificate Examination which can qualify them for higher education. Pass rates at this level have been falling with only 33% qualifying for full certification in 1998 amounting to about 2000 students. Others may qualify at lower levels because they fail English language and/or are unable to obtain minimum standards across five subjects.

The financing of education in Lesotho is shared by the government, parents (mainly through student fees), the churches, and bilateral and multilateral agencies. Total GOL expenditure on education increased under the 1991/92 – 1995/96 Education Sector Development Plan. About a third of all GOL recurrent expenditure goes to education. The government's contribution covers administration expenditures of the Ministry of Education (MOE), teachers' salaries at all levels³, operating costs of schools, most recurrent costs of the National University of Lesotho (NUL) and the cost of student loans and bursaries, and the National Teacher Training College (NTTC). The MOE's share of government recurrent expenditure ranged between 16.4 % in 1989 and 36.0 % in 1994, and was 33.7 % in 1997/8. These amounts represented nearly 6% of GNP in 1996 (Table 4).

³ Except for early childhood provision.

Table 4: Total Government Expenditure and Expenditure on Education 1988-1997 (Maloti⁴)

Year	Govt Total Expenditure Million Maloti	Actual Expenditure on Education Million Maloti	% Expenditure on Education
1988/89	320800	64898	20.2
1989/90	425000	69649	16.4
1990/91	348246	69719	20.0
1991/92	437102	99346	22.7
1992/93	524083	147788	28.2
1993/94	621083	213431	34.4
1994/95	807029	290933	36.0
1995/96	1159741	335431	36.0
1996/97	1179000	370900	28.9
1997/98	1351445	455240	33.7

The share of the budget for primary education was increased to 54.4 % of the total education budget during the financial year 1991/92. Since then the proportion allocated to primary has declined despite the commitment to expand access and participation at the first level and now stands at 41%. Reallocation has favoured the University level, whilst secondary support has remained fairly constant. Budget allocations to different levels in the past five years are reflected in Table 5. The budget for NTTC in 1997 was between 2% and 3% of the total education budget.

Table 5: Percentage Recurrent Expenditure by Level as a % of Total

Financial Year	First Level (Primary)	Second Level (Secondary)	Technical/ Vocational	Third Level University	Non-Formal
1992/93	54.4	26.2	2.6	15.9	0.2
1993/94	47.7	29.3	2.9	18.4	1.7
1994/95	42.0	22.6	7.4	25.7	2.3
1995/96	43.6	23.7	6.6	25.0	1.0
1996/97	41.2	25.8	5.6	26.5	0.9

The cost per student has grown over the same five year period as shown below. These figures are not corrected for inflation. They show that university costs per student have grown relative to other levels and now exceed 100 times those at primary. The National University enrolls about 2,000 students who are therefore very favoured when compared to students at other levels (Table 6).

⁴ 1 USD = 6.0 Maloti in 1999.

Table 6: Cost per Student per Year 1992-1997 (Maloti)

Sector	1992/3	1993/4	1994/5	1995/6	1996/7	1997/8
First Level Primary	240	244	326	388	384	514
Second Level Secondary	807	962	1045	1198	1331	1481
Third Level University	15786	18573	39305	41984	45044	56614
Ratio of Cost per Student to Unit Cost of Primary						
First Level Primary	1.0	1.0	1.0	1.0	1.0	1.0
Second Level Secondary	3.4	3.9	3.2	3.1	3.5	2.9
Third Level University	65.8	76.1	120.6	108.2	117.3	110.1

The trends in sub-sectoral allocations and unit costs are a cause of concern. They are clearly counter to the intentions of the Five Year Plan to invest more at the first level. They carry implications for the financial support available for the development of teacher education. Budget estimates for 1999/2000 suggest that allocations to primary are planned to 48% of the total, and secondary to 28%, with a consequent fall in tertiary level allocations.

The breakdown of recurrent and capital expenditure within the MOE in 1997 was as follows. Teacher's salaries account for 52% of recurrent expenditure and grants and bursaries for students a further 33%. Capital allocations have been increasing and now stand at 14% of the total education budget (Table 7).

Table 7: Table Distribution of Budget Allocations 1997/98

Category	Millions	Percentage
Teachers Salaries	239.4	52.0
Non Teaching Staff	30.3	6.6
Grants and Bursaries	152.8	33.2
Travel and Transport	5.7	1.2
Operating Costs	27.3	5.9
Special Expenditure	4.9	1.1
Total Recurrent	460.4	100.0
Capital	73.9	0.0
Capital as % Total	994.7	13.8

The Government of Lesotho has committed itself to a number of targets to be achieved by 2011 with the assistance of donors over the next fifteen years. These include:

- Enrolling all children of school age in primary schools
- Enrolling 40% of school age children in secondary schools
- Expanding coverage of early childhood provision to 50% of the Basotho population between the ages of 4 and 6 years old
- Increasing levels of achievement in basic literacy to ensure 80% of the population are literate.

Subsidiary targets to be achieved by 2006 include increasing net enrolment rates in primary to 85%; decreasing primary pupil-teacher ratios to 40:1; reducing primary dropout to half its current value and reducing repetition by 25%; ensuring that over 70% of recurrent expenditure is allocated to primary and secondary education; and increasing the number of qualified teachers by at least 20% (World Bank 1999, Ministry of Education 1997). It has been announced that primary education will become free from the year 2000 and that fees will therefore be abolished.

All these objectives carry implications for teacher education. Increased participation and retention will increase the demand for teachers as will the need to replace the untrained. Expansion of secondary enrolments at current cost levels will put the education budget under pressure and constrain resources for training and upgrading. New demands for training will arise for early childhood development and from an emphasis on improving literacy in and out of school.

CHAPTER 2

THE TEACHER EDUCATION SYSTEM

The National Teacher Training College was established by Government Order in 1974 when it was decided to replace the Teacher Training Colleges run by different missions by a single institution. This decision was taken in response to a long-felt need for a centralised teacher training centre for both pre-service and in-service work. Since its creation in 1975, the college has been a department of the Ministry of Education and its recurrent budget had been provided by the government. Donors have supported some of the capital costs and have periodically provided technical assistance. The college is the only provider of initial training for primary school teachers in Lesotho. It also trains junior secondary school teachers and secondary school teachers of technical subjects.

The priority given to the college by the fifth Five-Year Plan was to revitalise primary teacher education. Attention was to be given to four broad areas: (a) management and administration, (b) staff development (c) capacity building and (d) academic development. Suggestions have been made repeatedly over the last ten years that the NTTC should be given a measure of autonomy from the MOE in order to strengthen its administration and management and improve its efficiency. Legislation granting autonomy to NTTC has been passed and a number of consultations are taking place in preparation for the implementation of autonomy. This would move the NTTC out of the direct control of the MOE. If autonomy is granted matters pertaining to finance, staffing, teaching, governance and general organisation of the college will fall under the control of an independent board. It is anticipated that a greater proportion of student fee income would flow directly to the NTTC and that it would develop a degree of financial autonomy.

The college currently offers four full-time teacher training programmes. Each of the programmes is of three years' duration and three provide initial teacher certification. The NTTC is affiliated to the National University of Lesotho which ratifies the awards. The programmes offered are the Diploma of Education (Primary) (DEP) which is a new course in its first year. This has replaced the former Primary Teacher Certificate (PTC). It provides initial training for those entering directly from completing COSC. The second primary training programme offered is the Diploma in Primary Education (DPE). This in-service course is for those who have experience but who are not qualified at Diploma level. It is offered to those holding PTC. The secondary training programmes offered are the Secondary Teachers Certificate (STC) and the Diploma in Technology Education (DTE).

In addition to the full-time programmes, the college runs two part-time programmes, one for unqualified teachers and another for Head teachers. The former programme is the Lesotho In service Training Primary Teachers Certificate (LIET PTC) and the latter is known as LIET VI. Both programmes are run through a combination of distance mode and face to face teaching during school vacations and district workshops. The duration of the LIET PTC is three and a half years and that of LIET VI two and a half years (Table 8).

Table 8: NTTC Programmes

Course	Start Date	Entry Requirements	Duration	Description
PTC	1975	COSC: 2 Credits plus 3 passes or LIET or equivalent	3 Years Full-time	Initial teacher training. Many entrants have taught as untrained teachers for several years
DPE (replaced APTC)	1994	2 nd class pass in either PTC, APTC and LIET VI plus two years teaching experience	3 Years Full-time	Up grade programme for teachers with PTC and other qualifications below Diploma level.
DEP (replaced PTC)	1999	COSC: 4 Credits and one pass	3 1/2 Years Full-time	Initial teacher training. Entrants from COSC directly.
STC	1975	COSC with 4 Credits plus 3 passes or LIET or equivalent	3 Years Full-time	Initial teacher training. Entrants from COSC directly and some are upgrading.
DTE (replaced STTC)	1990	COSC with 4 Credits and one of the following: A pass in a technical subject at JC or COSC or craft certificate STTC part 2 or equivalent A pass in COSC Maths and Science if not included in COSC credits	3 Years Full-time	Initial teacher training for technical subjects. Entrants from COSC directly.
LIET PTC	1992?	JC with second class pass or ACE	2 1/2 Years Part time	In service qualification for JC holders to qualify at certificate level
LIET 6	1986	PTC plus 3 Years head teachers experience or PH plus 3 Years as principal LPTC plus 5 Years as principal	3 1/2 Years Part time	Head teacher training

Since its establishment in 1975, the college has produced 4,521 teachers in its full-time programmes. The output consists of 1,481 at STC level; 2,518 at PTC level; 156 at STTC level; 66 at DTE level; 271 at APTC levels; and 92 at DPE level. The STTC⁵ and APTC⁶ programmes have been replaced by DTE and DPE respectively. Recent changes have replaced one of the longest pathways for training in Africa by a progression which is similar to that elsewhere. Formerly trainees could spend three years acquiring a PTC, teach for a period, return for three years on the APTC, teach again and then enrol for a Diploma level award. Now there is direct entry from COSC to the DEP programme for three years.

Admission into the various NTTC programmes is stated under each programme in terms of minimum entrance qualifications, though those with higher qualifications have precedence. There have been repeated efforts to raise entry standards but these have often been thwarted by the shortage of suitable applicants.

⁵ Secondary Technical Teachers Certificate

⁶ Advanced Primary Teaching Certificate

Thus Primary Teachers Course (PTC) originally required a good pass in Junior Certificate. Applicants who had taught before and held the required level of passes were also considered for admission; as were those with appropriate in-service qualifications. In 1992 the entry standard was raised to a minimum of GCE: two credits plus two passes translated into four subject passes. The Advanced Primary Teachers' (Administration) Course (APTC) required a teacher's certificate with post-training teaching experience. This criterion was important since the course was aimed at training principals of primary schools. The Secondary Teachers' Course (STC) is available to those with a Cambridge Overseas School Certificate (COSC) with four credits.

The Diploma in Primary Education (DPE) programme considers applicants with a minimum of a second class pass in APTC, PTC or LIET Level 6 award. Teaching experience is considered an important element of the admissions criteria. The new Diploma in Education (Primary) (1998 entry) requires Cambridge Overseas School Certificate with credits in four subjects and a pass in a fifth subject. Since this programme is intended for high school leavers, teaching experience is not a requirement

The NTTC has a general admission regulation concerning passes in English. In Lesotho English is one of the subjects which students of all levels of education have to pass in order to proceed to the next level of study. Thus applicants with a pass, or credit in English Language or in English Literature have higher chances of being admitted into the college programmes than those without. In addition, all entrants undergo an Entrance Selection Test, the objective of which is to measure candidate's aptitude for Teacher Education.

Enrolments in the NTTC from 1993 are shown in Table 9. The gender balance during the academic years 1992 to 1997 has varied. For example, in 1995 there were 249 males and 546 females as compared to 1997 when there were 217 males and 683 females. Over the past five years 24% of the intake has been male and 76% female.

Table 9: Enrolment at the National Teacher Training College for 1993 -1997 by Course and Sex

Name	1993		1994		1995		1996		1997	
	M	F	M	F	M	F	M	F	M	F
PTC	38	320	52	312	61	300	71	298	57	358
APTC	6	101	14	90	17	38				
STC	61	132	52	149	70	144	90	156	80	184
Dip. In Prim	7	51	8	50	30	74	24	129	22	131
Dip Tech. Ed. I	3	11	14		9	3	10	2	29	5
Dip Tech. Ed. II	4	10	14		10	3	12	2		
Dip. Tech. Ed III							11	2	29	5
Total	119	625	154	601	197	562	218	589	217	683
Change (%) from previous year	27.9	13.3	29.4	-3.8	27.9	-6.5	10.7	4.8	-0.5	16.0

In 1999 the NTTC had a total enrolment of 917 students. Of these 596 are enrolled on primary teacher training programmes divided between the Diploma in Primary

Education (DPE; 165), the Diploma in Education Primary (DEP; 101), the Primary Teachers Certificate (PTC; 310), and the Early Primary Specialisation (E.P.S.; 20).

Statistics on pass rates suggest that failure rates are low. Table 10 shows these. In some cases this may over estimate the failure rate since candidates who fail may subsequently resit and retrieve their positions.

Table 10: Certificates Awarded at the National Teacher Training College, Total Number of Candidates and the Percentage Pass 1993-97

Name	1993		1994		1995		1996		1997		1998 ⁷
	No.	Pass	No.	Pass	No.	Pass	No.	Pass	No.	Pass	No
PTC	130	64.6	115	73	125	99.2	125	79.2	138	92	125
APTC					59	100	59	84.7			
STC	61	96.7	61	96.7	51	100	51	100	86	97.7	81
Dip. In Prim									46	100	45
Dip Tech. Ed.	7	57.1	5	100	14	92.9	14	78.6	17	88.2	15
Total	198	74.2	181	81.8	249	99.2	249 ⁸	84.7	298	95	

The NTTC currently employs 106 academic staff for its pre-service and in-service programmes. Of these, 63 are deployed in Primary Teacher Education. Table 11 shows how the lecturers are graded and distributed across programmes. There are 19 senior lecturers, 14 lecturers, and 43 assistant lecturers. As a department of the Ministry of Education the NTTC salary structure follows the GOL civil service scales. The three levels of appointment are remunerated at grades 9 – 10, 11 and 13 respectively. The average salaries for assistant lecturer, lecturer and senior lecturer are M 36, 984; M 46,812 and M 59,460 respectively.

Table 11: Distribution of Academic Staff by Grade and Programme

Programme	No of Lecturers	Senior Lecturer	Lecturer	Assistant Lecturer
Primary (pre-service)	43	9	17	17
Primary (in-service)	20	2	11	7
Secondary	39	8	15	16
Technical	3		1	2*
Computer	1			1
Total	106	19	44	43

*1 expatriate ungraded

The qualifications held by NTTC staff are shown in Table 12. In the past five years the qualifications of several lecturers have been upgraded from Diploma to Bachelors, from Bachelors to Masters, while a few lecturers are pursuing doctoral studies. However, the criteria for grading academic staff are not clear. Some staff with Masters degrees are assistant lecturers; others with junior degrees are lecturers. There

⁷ Pass rate not available.

⁸ 445 graduated from the LIETPTC in 1996 and 100 from the LIET VI programme in 1996.

being no system of staff appraisal and no clear guidelines for promotion it can only be noted that academic staff qualifications range from Diploma to Masters degree. It is not uncommon for academic staff to stay in one grade level for more than ten years and be superseded by some one who has just joined the college. This might be the reason for the high turnover of staff from the college. In 1998 14 staff left and 13 new staff were appointed; in 1999 the figures were 12 resignations and 20 appointments. This represents a turnover of around 15 staff per year. About 5% can be accounted for by retirement. If there is 10% turnover amongst younger staff this may be some cause for concern in building stable programmes with consistent teaching inputs.

Table 12: Qualifications of NTTC Staff 1998

Highest Qualification	Number	Percent
Diploma	2	5
BA/BSc	23	61
Honours	3	3
PGCE/PGDE	2	5
Masters	7	18
PhD	1	3

Amongst the NTTC staff 71% are female. The age distribution of staff indicates that 12% are below 40 years, 40% between 40 and 50, 21% between 50 and 60, and 8% over 60 years old. Fully 50 % have less than 5 years service and 29% have over 10 years.

In addition to the academic staff there are about 15 posts allocated to management and senior administrators. A further 75 non-academic staff are employed by NTTC. Academic, administrative and senior management staff salaries are responsible for about 85% of the salary bill.

Recent developments on the NTTC's site have been designed to increase capacity. Facilities have been extended in order to increase output from all of the programmes. Additional classrooms, hostels and office accommodation have been provided. Capital costs for classroom were financed by the European Union development fund in 1996. An office complex suited to the needs of the college was erected with support from Irish Aid in 1997. Construction of student hostels is in progress with funding from Japanese Aid. The intention is to increase the NTTC's full capacity from 650 full-time students to 1100 which would give an output of just over 350 per year for three year courses. This target has not been met. So far it has not been possible to meet the entry quota for the newly established diploma programme which will train the bulk of new students. In 1998 many applicants apparently did have the minimum of four credits and two passes needed.

The fifth and sixth five-year plans have focused on enhancing the quality of the trainees. Consultancies have been undertaken (e.g. Burke, Sugrue, and Williams, 1994; IDM, 1997) and conferences have been held (e.g. Primary Teacher Education in Lesotho: 2000 and Beyond, 1995; Review of Secondary Teacher Training Curriculum, 1998) to develop means of achieving this goal. The recommendation from the Burke et al (1994) study to start a Diploma in Education (Primary) to replace the PTC was implemented in 1998. The review of the STC Programme is aimed at upgrading it to the diploma level.

CHAPTER 3

THE SYSTEM OF COLLEGE FUNDING AND SOURCES OF COSTS

The education sector in Lesotho is funded by a mixture of public funds, parental contributions and donor monies. The GOL has designated the World Bank as the leading donor agency for education (World Bank, 1999). Generally speaking, recurrent expenditures in the school system are covered by the government and parents, while most capital costs are met by donors. The NTTC is run like any other department of the MOE. Through its various departments the college prepares budget estimates, which are submitted to the MOE. Here they will be subjected to cuts and/or revisions to keep them within budgetary limits while ensuring that priority items are funded. Budgeting is thus conducted on an essentially historic basis with each year reflecting incremental gains on the previous year. The MOE indicates a percentage increase which reflects inflation and any special demands on the NTTC, and the NTTC prepares a budget bearing this in mind which it presents to the MOE for negotiation. Formula funding related to activities is not employed. Nor has a zero base budget exercise been carried out. In the past five years the college's expenditure and the institutional unit cost stood thus (Table 13):

Table 13: NTTC Expenditure and Unit Costs (1992 – 1997)

Year	Expenditure (Maloti Millions)	Cost per Student (Maloti)
1992/93	5.0	6,901
1993/94	5.6	7,457
1994/95	7.3	9,385
1995/96	7.7	10,116
1996/97	7.7	9,514
1997/98	10.3	11,922

The bulk of college funds are used for salaries and for the up-keep and the running of college activities. Salaries account for 53% of recurrent expenditure. Upkeep of the institution is the largest other cost at about 20% which taken with other operating costs accounts for over 40% of expenditure. Budget estimates for the college which were approved by the government for the current financial year (1997/98) are given here below in Table 14.

Table 14: 1997/1998 Approved Estimates for NTTC (in Millions of Maloti)

	Maloti (Millions)	% of Total
Personnel		
Salaries – In post	5.63	41.79
Salaries – Vacant posts	1.00	7.45
Allowances	0.45	3.33
Local Training	0.04	0.30
Sub Total	7.12	52.87
Transport		
Maintenance and Repairs	0.06	0.48
Fuel and Lubricants	0.04	0.28
short-term hire	0.04	0.30
Motor mileage	0.01	0.07
Fares (local)	0.03	0.21
subsistence (local)	0.06	0.44
Sub Total	0.24	1.77
Operating Costs		
Power	0.89	6.61
Communications	0.05	0.40
Printing	0.18	1.36
Stationery	0.14	1.04
Maintenance of public assets	0.44	3.26
Upkeep of Institutions	2.66	19.73
Running Costs	0.10	0.74
Purchase/Production of Materials	0.37	2.71
Minor works	0.44	3.23
Counterpart Contribution	0.19	1.43
Drugs	0.01	0.04
Dressings	0.00	0.02
Sub Total	5.46	40.57
Special Expenditure		
Office Equipment	0.08	0.59
Books and Publications	0.01	0.08
Vehicles, Cycles and Engines	0.55	4.11
Sub total	0.64	4.78
Grand Total	13.46	100.00

Actual expenditure appears to have been less than this estimate and is accounted for at 11.7 million Maloti. The revised budget for 1998/9 is 14.1 million Maloti and for 1999/2000 the approved estimate is now 13.7 million Maloti. Currently therefore NTTC is experiencing some measure of budgetary restraint.

Student fees provide the second source of funding for NTTC. Boarders pay M1,087, M660 and M1,162 in the first, second and third year of study respectively. Day students on the other hand pay M705, M462 and M870. Table 15 shows a breakdown

of student fees. Total fees for boarding students represent about 10% of the total cost per student.

Table 15: Student Fees at NTTC (Maloti)

	Boarding			Non Boarding		
	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Registration Fee	16	16	16	16	16	16
Tuition fee	437	292	437	437	292	437
Room and Boarding Fee	525	265	252			
Lunch Fee				233	81	233
Activities Fee	58	43	58	58	43	58
Caution Fee	50	50	50	50	50	50
Graduation Fee			76			76
Total	1087	666	1162	794	482	870

In-service accounts do not break down expenditure. PTC in-service students pay M206 per course parts (2 parts constitutes an academic year) which comes to M1,442 for the three and a half years programme. LIET VI students pay M1,030 for the two and a half years programme. The last part of both programmes includes a graduation fee of M76. The total for PTC is therefore M1,518 and for LIET VI it is M1,106.

Based on these figures it is possible to estimate the budgeted cost per student. Taking 1998 enrolments lead to the following calculation.

Fee Income

554 boarding students	=	M516,838
563 non-boarders	=	M251,838
401 in-service PTC	=	M608,718
70 LIET VI	=	M 77,420
Total Student Payments	=	M1,454,814
Total NTTC Budgeted Allocation	=	M14,100,000
Total no. of NTTC students	=	1388
Number corrected for part time ⁹	=	1212
Average cost per student (excluding fee contribution)	=	M11,633¹⁰
Average cost per student (including fee contribution)	=	M10,430

⁹ Corrected by pro rata adjustment related to teaching hours i.e. student full time equivalents rated by the proportion of a full time student's teaching hours they receive.

¹⁰ The NTTC does not receive fee income into its budget. However the MOE does.

This represents the public cost per full-time student per year and is equivalent to about US\$1660 (including fee contribution). It assumes that there are no other public costs. The Institute of Development Management (IDM 1997) report draws attention to a variety of methods of calculating costs taking into account different types of student subsidy and opportunity costs. Its estimates are consistent with this analysis. It should be noted that students at the NTTC forego income equivalent to a primary school teacher's salary of M10,000 – M20,000 whilst they are on full-time courses. Students receive an allowance for dependants which gives them a full salary for six months and half salary thereafter. For those who qualify the cost of this is likely to be between M7,500 and M10,000.

Two further points need noting. First, these are costs per year. The full-time course last for three years and thus the cost per trained teacher graduate assuming no failure is three times greater i.e. about M31,500 or about US\$5,000.

Second these unit costs are an average across all programmes at NTTC. The secondary training programmes have smaller enrolments and teaching group sizes. They are therefore more expensive. The staffing of NTTC allocates 63 academic staff to primary and 44 to secondary. Assuming average salary costs are similar across the two groups then about 59% of salary costs can be attributed to primary and 41% to secondary. However, the number of full-time equivalent students is split in the ratio 73% to 27% in favour of primary. As a result the weighted average cost of primary students will be about 80% of the calculated figure (M8,360 per annum), and those of secondary about 50% greater (M15,670 per annum). If average secondary lecturers' salary costs are higher than those of primary lecturers, these cost differences will be larger.

Total salary costs to the GOL per student in the full-time and part-time programmes at the primary teacher training level can be calculated by considering the student-teacher ratio and the salaries of teaching staff. The enrolment in the two programmes in 1998 was as shown in Table 16.

Table 16: Enrolment for NTTC Primary Full-time and Part-time Programmes

Full-time	Enrolment
Diploma in Primary Education	165
Diploma in Education (Primary)	101
Primary teachers Certificate	330
Total	596
Part Time	
LIET PTC	401
LIET VI (Headteachers Programme)	70
Total	471

As noted above there are 43 lecturers on the full-time primary programme and 20 on the part time giving student teacher ratios of 13.9 and 23.6 respectively. Using current lecturer's salaries, the salary cost per student in the full-time programmes is M3,510 and for the part-time programmes it is M1,986. These are costs per year. This is about one third of the simple NTTC costs per student. Other costs are therefore associated with non-salary and non-teaching salary costs.

The NTTC budget is not presented according to the various departments of the college. However the number of hours of taught time on each programme is specified (Table 17). If the cost of a teaching hour does not vary widely then each course shown below will have similar costs (noting the differences between part time and full-time courses). Total course costs will vary with the size of the course roughly in the ratio of the number of student hours committed.

Table 17: Courses, Enrolments and Number of Student Hours Taught.

	PTC	DPE	DEP	STC	DTE	PTC (LIET)	LIET VI	Total
Student/hrs per programme	2025	2250	2160	2025	2190	1200	857	12707
Enrolment	330	165	101	281	40	401	70	1388
Total student hours	668250	371250	218160	569025	87600	481200	59990	2455475

If the basic assumptions indicated above do not hold and the cost of a teaching hour does vary widely, then course costs will differ. This may occur if there is a wide range of lecturer's salaries. More likely the organisation of teaching may take place in such a way that teaching group size varies widely and this will result in high costs for courses with small groups. Data from NTTC can be used to establish the extent to which this occurs.

It is clear that in principle the cost of a trained teacher could be reduced (or conversely more teachers could be trained for the same cost) if the length of training was reduced, or if the cost of a teaching hour was diminished. It has been suggested that a distance education programme may be introduced under the next World Bank agreement. According to the World Bank Appraisal Document the Distance Teacher Education Programme which is to be funded by the World Bank would improve upon the existing part-time programmes in that:

- the length of training required will be reduced from three and a half years to two years for the certificate programme
- certified teachers will progress to the Diploma level after 1-2 years of study
- the annual intake will increase from 200 to 500 teachers
- LIET VI will be upgraded
- most of the training will be school-based

The programme is yet to be costed. If its length is shorter than existing programmes it should be cheaper. It cannot be assumed that the costs of delivery are necessarily cheaper per year. Some distance programmes are cheaper than conventional PRESET but some have proved more expensive. It all depends how they are organised (Rumble 1997).

CHAPTER 4

INTERNAL EFFICIENCY OF THE NTTC

The NTTC offers four courses of immediate interest to this study. These are the DPE, DEP, PTC and PTC (EPS). The number of students on each of these courses in each year is shown below for 1999 in Table 18. The students are divided into groups according to the alphabetical order of their names in each programme and the groups are paired during lectures. Students in PTC II for example, have been divided into six groups of about thirty students each. Two of these groups are taught together in a class of 60 students. In PTC III there are five groups since the total enrolment is smaller in year 3 than year 2. Year 1 of PTC has only 9 students who are repeating the first year. There is no new intake for PTC. The dropout rate in NTTC is very low so student groups tend to remain the same size.

Table 18: Student Distribution by Number in Each Programme in 1999

Programme	Year 1	Year 2	Year 3	Total
DPE	48	62	55	165
DEP	101			101
PTC	9	187	114	310
PTC (E.P.S)			20	20
Total	158	249	189	596

Overall there are 43 teaching staff members in the primary division at NTTC. Each member of the teaching staff teaches on one or two of the primary programmes. They usually take responsibility for one or two groups in a programme. Sometimes they cover all the groups depending on the numbers. The overall staff-student ratio at NTTC is 1:14 for the primary division. This should allow the convening of staff in ways that enables a rich curriculum to be delivered to groups of students that are not excessively large. However, the teaching and groups sizes are unevenly distributed over the different programmes and this gives rise to some problems. Staff members who are teaching the diploma groups are handling smaller numbers than those who are teaching the PTC groups and this causes an imbalance in the loads in terms of student hours. There are also differences between subjects.

Table 19 shows the number of student-teaching hours delivered for the majority of staff members. In addition to these loads teaching practice preparation and supervision can take five hours a week. Different arrangements are made in different departments to subdivide year groups. Thus, for example, for PTC year 2 there are 187 students. These need to receive 3 hours of science per week. The group is taught for one hour as a whole group (187), and then subdivided into three groups of about 62 for two hour sessions. The total contact time for the students is therefore three hours; the staff member teaches for seven hours. Similar arrangements exist for other groups. The length of periods varies according to department.

Table 19: Staff Teaching Loads in Student Hours for Selected Departments in the First Semester of 1999¹¹.

Staff No.	Department	No. of students taught	Number of contact hours	Number of periods per week	Teaching load in student hours
1	English	101	10	8	1010
2	English	48	6	3	288
3	English	134	9	5	1206
4	English	187 + 1	6 + 3	6	1125
5	English	48 + 187	6 + 1	4	475
6	Science	134 + 21	5 + 1.5	4	701.5
7	Science	101 + 27	3 + 3	4	384
8	Science	21 + 31	3 + 2	4	125
9	Science	101 + 9	6 + 3	6	633
10	Science	187 + 21	7 + 1.5	5	1340.5
11	Science	31 + 31	3 + 3	4	186
12	Mathematics	134	7	7	938
13	Mathematics	187	7	7	1309
14	Mathematics	101	9	6	909
15	Mathematics	14	7	5	98
16	Mathematics	20	10	5	200
17	Prof. Studies	134	7	6	938
18	Prof. Studies	187 + 9	7 + 5	7	1354
19	Prof. Studies	62	6	3	372
20	Prof. Studies	62 + 9	3 + 3	3	213
21	Prof. Studies	101	7	4	707
22	Sesotho	101	9	6	909
23	Sesotho	187	6	3	1122
24	Sesotho	62	7	4	434
25	Sesotho	48	9	5	432
26	Sesotho	134	7	4	938
27	Health	101 + 9	9 + 3	8	936
28	Health (P.E)	187	14	8	2618
29	Art & Craft	101 + 134	8 + 7	5+4	1746
30	Art & Craft	187	4	4	748
31	DS	62 + 62	1 + 4	3	310
32	DS	61 + 114	1 + 4	4	517
33	DS	64 + 48	1 + 6	4	352
34	DS	187 + 20	1 + 1	3	207
35	Agric	134	6	6	804
36	Agric	101	9	6	606
37	Agric	187	3	4	748
38	Music	187	9	7	1683

The NTTC follows normal government practice and working hours are from 8.00 am to 4.30 pm with a one hour lunch break. The number of working hours available is therefore 7.5 hours a day or 37.5 hours a week. The data indicates that on average staff have 7.6 contact hours with student groups each week, or about one and a half

¹¹ Data on Religious Education missing

hours per day (Figure 6)¹². The range is between 2 and 15 hours per week. In addition to this they must prepare and mark work. The overall load in student-hours (the sum of the number of students in each group times the number of hours they are taught) shows that the average load is 780 student-hours per week (Figure 7). This is equivalent to 7.8 hours teaching with a group of 100. The range is very wide and varies between 98 and 2600 per week.

There is no specialisation in the PTC and DEP programmes. Lecturers on these programmes have large student hour loads since the group sizes are large. The greatest student hour loads are in Music, Art and Craft and Health. These departments have a history of under staffing in terms of the number of lecturers so all students are taught by few lecturers. Four NTTC graduates have been sent for training in these specialisations. The next largest loads are in English Mathematics, Science and Professional Studies.

¹² These calculations exclude the Religious Education Department on which there was no data.

Figure 6: Number of Contact Hours by Staff Member

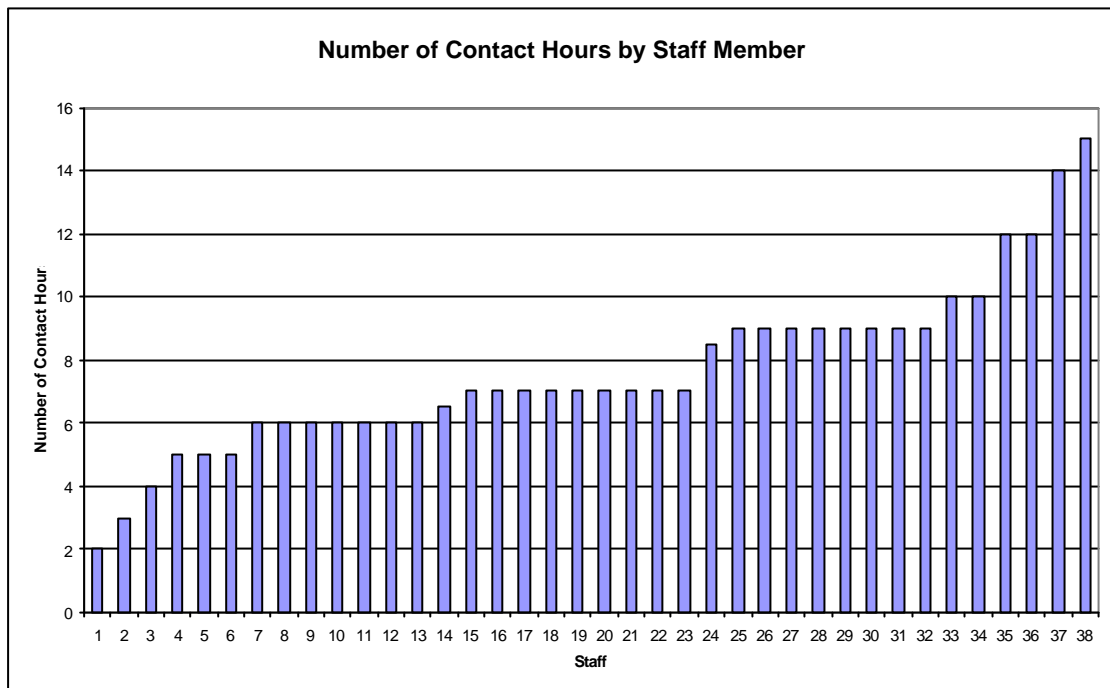


Figure 7¹³: Teaching Load in Student Hours per Week

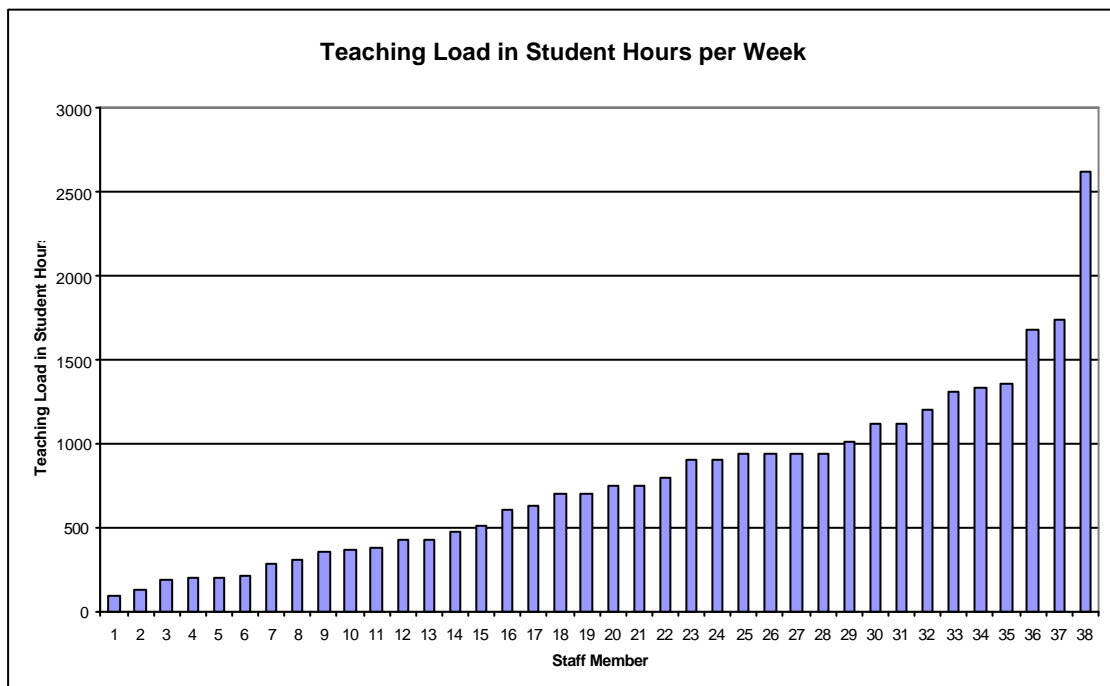


Table 19 shows that teaching group sizes vary widely from 190 to less than 10. There are reasons why some groups are very small. A few students are repeating the first year of the PTC which has no new intake. Some are taking options which attract few students. Large lectures are used for whole year group teaching. When these groups are sub-divided for follow-up sessions group sizes still remain large and are often over

¹³ Staff are numbered in a different order to Table 19.

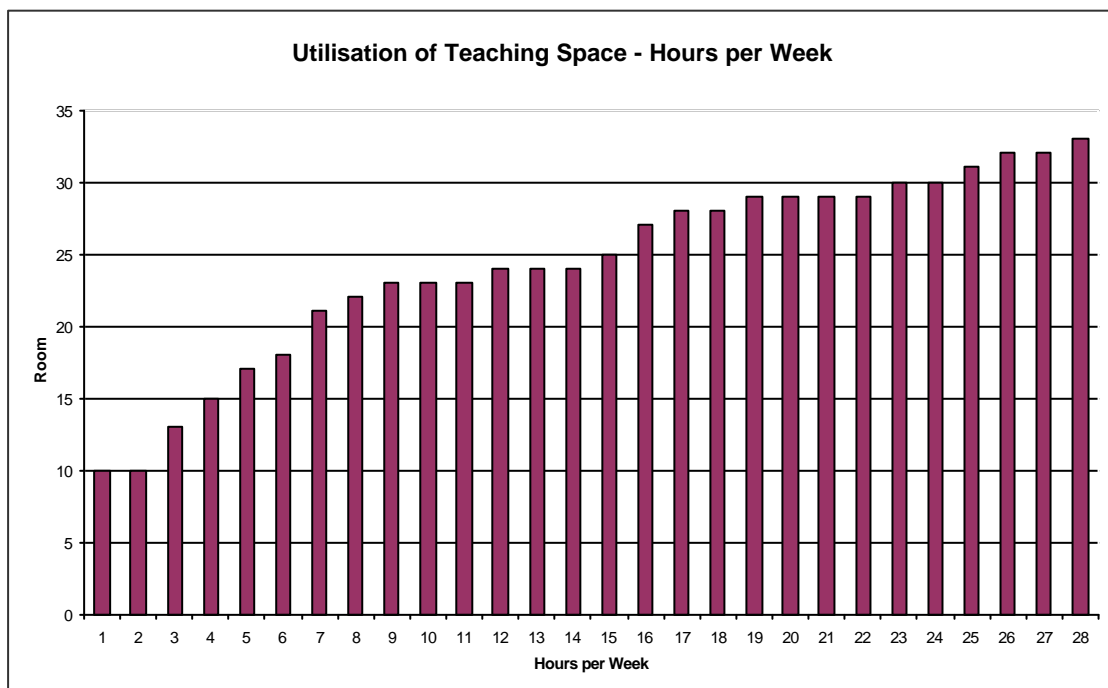
60. This pattern of teaching must constrain opportunities to develop approaches that engage students directly in small group interaction and varied methods of training which cannot be managed with large groups. If more contact hours were taught each week group sizes could be reduced.

The first semester of the 1999 academic year was 12 weeks long. At the beginning of each semester students are given two days to register, after which classes begin. The 12 weeks making up the first semester include one week for revision and two weeks of examinations. The actual teaching time is therefore about nine and a half weeks with occasional interruptions due to national holidays.

Students are timetabled for between 25 and 33 hours a week depending on the course. This allows a limited amount of time for self-study and forms of peer learning. The result of this is that, for example, each group in year two of the PTC has 26 hours of contact time plus 5 hours of teaching practice preparation each week for 9 weeks. Each group has 6.5 hours of free time per week based on the 7.5 hours government/civil service working hours per day. This means that these students are on task 31 hours per week out of the 37.5 government working hours/ time.

An attempt was made to assess the utilisation of space in NTTC. Figure 8 shows how many hours per week rooms in NTTC are timetabled for teaching activity. On average teaching space appears to be in use for about 25 hours a week.

Figure 8: Utilisation of Teaching Space – Hours per Week



This analysis suggests that the 28 teaching spaces included in the analysis is well utilised. It should be noted that this analysis is based on periods when the NTTC is in session and students are being taught. Out of session (i.e. about 20 weeks a year) these teaching rooms will not be occupied by normal course students. It should be noted

that if the preceding analysis of contact hours is correct a total of about 290 hours are delivered each week by 38 primary staff. This would require 28 rooms to be occupied for about 10 hours a week each. The estimates of space utilisation include the space occupied by the secondary programmes. A full analysis would separately account for this. It also needs to account for any space used for teaching practice preparation, student self-study, and the teaching activities of the staff members not currently included in the analysis of contact hours.

New hostel accommodation has been built at NTTC and the existing accommodation is to be refurbished. When this work is complete the residential capacity will approach 1000 students. An analysis is needed to determine what the constraint will then be on enrolment growth. It may be that teaching accommodation needs to be expanded.

In conclusion this analysis of internal efficiency draws attention to the profile of teaching loads (averaging 7.6 hours contact per week at primary); the level of student-hour teaching loads (which on average are equivalent to 7.8 hours a week with 100 students); the wide variation in loads between staff members; and the rate of space utilisation (relatively high during semester time). The overall NTTC student teacher ratio is about 14:1 at primary. There are 43 staff allocated to the primary section who will graduate about 190 students in 1999. This translates into an output of a little more than four trained teachers per full-time person-year of staff time. A similar analysis for secondary suggests that about 40 staff will graduate a little less than 100 secondary teachers giving a secondary output of about 2.5 trained teachers per staff member per year.

The questions that remain are therefore whether teaching could be organised more efficiently to provide for greater output with similar numbers of staff. Is it possible to timetable courses such that very large group sizes are minimised to allow for more varied training methods which include more interactive work in smaller groups? Can teaching loads be more evenly distributed and should contact hours be revised? To what extent can space be utilised during periods when the NTTC is not in session¹⁴?

¹⁴ This is already the case but no data was available on the extent of utilisation.

CHAPTER 5

SELECTION AND PERFORMANCE IN THE NTTC

The NTTC selects candidates for primary teacher training from the pool of those who apply each year. Different programmes have different criteria for selection. This section looks more closely at aspects of the selection process and analyses the performance of those selected to see to what extent there is a correlation between performance at entry and how well students do subsequently. Three programmes are considered: The Primary Teacher's Certificate (PTC), the Advanced Primary Teacher's Certificate (APTC), and the Diploma in Education Primary (DPE). The PTC programme is being phased out and being replaced by the Diploma in Education Primary (DEP) programme; APTC has been replaced by the DPE.

5.1 The Primary Teachers' Certificate

The PTC programme is a pre-service training programme. Admissions in 1993-1995 fluctuated between 100 and 130. Target numbers are set by government, and NTTC admits up to these numbers. Often it has proved not possible to find a sufficient number of qualified candidates. About 12% were male, the average age of entrants was 24 years and they had on average slightly less than three years teaching experience as unqualified teachers before joining NTTC. The minimum academic requirement for admission to the PTC is at least two credits and three passes in the Cambridge Overseas School Certificate (COSC) examination, or completion of the LIET course, or an equivalent qualification. Consideration is given to applicants' performance in the Junior Secondary School Certificate (JC) examination in which a candidate must have at least a second class pass. Years of relevant experience are also taken into account when considering each applicant for admission.

In 1993, besides these academic requirements, some of the candidates were interviewed by an admissions panel. In subsequent years only academic results were used for selection. The panel considered and rated each applicant on the following characteristics:

- fluency in oral English;
- ability to communicate orally;
- grooming, which is understood to mean the extent to which the candidate presents his/herself professionally in terms of how he/she dresses or comports him/herself;
- physical fitness as perceived by the panel members;
- emotional fitness as perceived by the panel members;
- substance abuse, this is the perception of the panel members the extent to which they think the candidate looks as if he/she has been exposed to any form of drug abuse; and

- pregnancy, which is the perception of panel members whether or not the candidate is pregnant¹⁵.

Information on these characteristics was combined with candidates' academic results to arrive at a decision on selection. Information on about 100 candidates was available¹⁶. Candidates selected for admission in 1993 had a mean score of 5.9 credits and 1 pass in the JC examination, and a mean of 1.8 credits and 3.3 passes in the COSC examination¹⁷. The performance of those admitted was therefore below expectation. The mean weighted COSC performance of 8.7 was not significantly lower than the expected minimum value of 9.0¹⁸, though of course this means many were below the minimum value. Those who failed to meet the minimum would probably have been compensated for other related qualifications. In the 1993 cohort candidates had on average 2.2 years of teaching experience. Their ratings on fluency on oral English, as well as on ability to communicate orally were rated as 2.5 or higher on a four point scale. The ratings on the other non-academic characteristics were all over 3.

The 1994 entrants had a slightly improved profile on the quality of their COSC qualifications. They had a mean number of credits and passes of 2.5 and 3.0 respectively. This gave an overall mean of weighted COSC performance of 10.3, which was above the minimum threshold value of 9.0. At JC level the means were 1.2 passes, and 5.8 credits, giving a weighted mean of 18.5. Some of those selected had other qualifications. This group had an average of 3.7 years of teaching experience. This group of applicants did not go through any interview.

The 1995 entrants were similar to the 1994 group (COSC 2.5 credits and 3.2 passes; JC 5.6 credits and 1.4 passes; mean COSC performance of 10.7). Five of them had certificates in mathematics, one had a computer studies certificate, another one had a home economics certificate, while four had other in-service qualifications. They had, on average, only 2.9 years teaching experience.

The performance of 1993, 1994, and 1995 intakes was analysed for each of the three years of the course. Scores on College tests were consistently higher than might be expected from the profile of COSC results. Mean scores fluctuated around 65% which would be sufficient to obtain high grade credits in COSC. 1994 and 1995 candidates seem to have performed marginally better than 1993 probably as a result of more rigorous application of admission standards following the curriculum review of 1993.

Thus, for the 1993 students, their first year performance ranged from a low of 62.4% in Year 1 science to 71.8% in Year 1 mathematics, with a weighted overall mean of 65.5%. In their second year, their mean performance ranged from a low of 58.8% in Year 2 English to 74.0% in Year 2 Sesotho, with a weighted overall mean of 65.4%.

¹⁵ Unmarried students who fall pregnant are suspended from the College under the regulations. They can apply for readmission. If they fall pregnant a second time they are liable to dismissal. This practice followed the schools' Students Discipline and Residence Regulation Nos. 8 and 9 of 1988.

¹⁶ Correlation coefficients etc. are available in a separate statistical appendix for this and subsequent sections.

¹⁷ At COSC aggregates scores of 1 to 6 are rated as credits passes, while 7 and 8 are rated as ordinary passes.

¹⁸ Each of the 2 credits expected was weighted 3, while each of the 3 expected passes was weighted 1.

No trainee failed the teaching practice undertaken during the second year. Their performance for the third year ranged from a low mean of 57.5% in Year 3 development studies, to a high mean of 72.1% in Year 3 science with an overall weighted mean of 65.5%. The mean score for their graduation class was 1.90¹⁹. Only 7 (10%) of the students had first class, 66 (90%) had second class, and nobody in the sample had third class.

The results for the 1994 and 1995 groups fell within a similar range for most subjects between 60% and a little over 70%. The mean graduation class score for the 1994 students was 1.84. Sixteen (17%) students had first class, 73 (80%) had a second class, while two (3%) had a third class. For the 1995 group the average graduation score was 1.85, with 20 (17%) students having first class, 97 (82%) having second class, and two (1%) having a third class.

For Year 1 generally, students' performance in JC examination correlated directly and significantly only with their first year performance in mathematics²⁰, while performance in COSC did not correlate significantly with their performance in any subject in the first year. This might stem from the fact that COSC examination tests these subjects at a higher level than the primary school teacher trainees were taught in their first year during college. Even so, the result is nevertheless surprising. For some subjects (e.g. the professional studies courses) the fact that these are not part of the secondary school curriculum might be thought responsible for lack of correlation. Interestingly the number of years of teaching experience was found to correlate significantly with performance at professional studies but nothing else. This was what might be expected given the relationship between experience and this part of the curriculum. None of the non-cognitive characteristics which were rated during the admission interview in 1993 were found to be related significantly to performance in any of the first year subjects in the college. This calls to question the use of such non-cognitive variables for admission and selection into NTTC.

The general conclusion of the analysis is that the academic performance characteristics considered during the selection of candidates for the PTC course had few significant relationships with the students' first year performance across all the subjects. Except for correlations between the trainees' Year 1 performance in development studies and Sesotho (which was significant but negative), performance in all the other college subjects inter-correlated positively and significantly suggesting the examinations might be measuring a similar underlying attribute.

For the second year of college work, years of teaching experience correlated negatively but significantly with second year performance on the aggregate of optional subjects, while overall JC results correlated positively and significantly with performance in Sesotho, mathematics, agriculture, and science. COSC results, on the other hand, correlated significantly and positively only with performance in agriculture, the aggregate of optional subjects, and with the second year weighted mean average. Again, as in the first year, trainees' performances across college subjects were generally found to inter-correlate significantly.

¹⁹ In a system in which first class = 1, second class = 2, and third class = 3.

²⁰ Correlations reported here and subsequently are at the 5% level or better.

During their third year in college, the number of years of teaching experience was found to relate positively and significantly only with the trainees' performance in Sesotho. Their performance in JC was not found to relate significantly to performance in any college subject during this year. Similarly, their performance in COSC was found to relate significantly only to the overall graduation weighted mean. As for the previous two years there were generally significantly positive inter-correlations among the trainees' performance in the subjects they offered. Overall, COSC performance was weakly correlated with overall weighted mean graduation performance.

The trends in the data on admission and performance suggest that:

- (i) non-cognitive variables do not significantly predict trainees' performance at college;
- (ii) years of teaching experience provides a significant predictor of only first year performance at college;
- (iii) performance at JC examination only predicts trainees' performance at the early years of college training at which level what is taught is at par with what was taught at the JC level; and
- (iv) performance at COSC seems to be the best predictor of trainees' performance at college from those criteria used for selection.

The associations are not strong or consistent across subjects however. It should be noted that no data was available on those who were not selected from those who applied. It cannot be concluded that the students who were excluded would necessarily have performed worse than those accepted.

5.2 The Advanced Primary Teachers' Certificate (APTC)

This programme is now being replaced by the Diploma in Primary Education (DPE). It was an in-service training programme for primary school teachers who needed to improve their teaching skills. In 1993, 49 trainees were admitted under this programme. Of this number about 12% were males. The average age at admission was 39.7 years. Admission to this programme was based only on the number of years a candidate has taught after acquiring the PTC or an equivalent teaching qualification. Those admitted in 1993 had an average of 15 years experience. All but one had a PTC, 28 had general secondary education up to the JC level, while only four had COSC. Their weighted average JC and COSC performances were 13.9 and 7.3 respectively.

The data shows that the level of trainees' performance in the subjects they offered in the College was generally high and comparable to the PTC group. In the first year, this ranged from a low of 59.6% in agriculture to a high of 69.3% in mathematics. The weighted mean performance of 64.7%. In the second year, the performance ranged from a low of 58.5% in agriculture to 77.4% in mathematics, with a yearly weighted mean of 67.6%. In the last year, mean scores ranged from a low of 59.8% again in agriculture, to a high of 76.1% again in mathematics. The weighted mean performance was 69.7%. The cumulative overall weighted mean for the three years

was 65.3%. At graduation, 7 (14%) had a first class, 31 (63%) a second class, and 4 (8%) a third class pass.

For the few trainees that had the JC, their performance during the first year at college in Sesotho, development studies, science, English, the aggregate of optional subjects grouped together, and the weighted mean performance for the year related significantly to performance in the JC examination. Contrary to expectations, years of teaching experience (on which selection for admission is based), was not found to relate significantly to first year college performance in any of the subjects. Teaching experience may help in the area of pedagogy and not content based subjects. In most college subjects the trainees' first year performance inter-correlated significantly.

In the second year, performance in JC examinations related significantly only to performance in the aggregate of optional subjects grouped together. Again years of teaching experience was found to have no significant relationship with their performance on any of the subjects at college. In this year there was a weakening of the inter-correlations among trainees' performance in their college subjects possibly due to the range of option choice and the pattern of take up. In all, only 7 of the 15 inter-correlations reported, or about 47%, were significant.

Trainees' performance in JC examinations was found to be significantly related to their third year college performance in professional studies, Sesotho, mathematics, the aggregate of other subjects, as well as to their weighted mean performance for the year. As before years of previous teaching experience did not relate significantly to performance in any of the subjects offered in their third year at college. Of the 28 inter-correlations among performance in college subjects reported, only 13 or about 46% of them were found to be significant. Performance in science did not contribute significantly to their third year weighted mean average. Except for science and English, trainees' third year performance in all other subjects inter-correlated significantly as in previous years.

5.3 The Diploma in Primary Education (DPE)

The DPE programme is designed to replace the APTC. Like the PTC, this is a three-year programme with similar admission criteria. Since the APTC was discontinued, those who had PTC and wished to improve themselves were admitted into this programme. In 1994 and 1995, 59 and 44 teacher trainees were admitted. In 1994, 14% were males and in 1995 16%. The average age at admission for the 1994 entrants was 36.8 years and for 1995 entrants 32 years.

The basic entry requirements for this programme were at least 2 credits and 3 passes at the COSC examinations. However, to reduce the backlog of PTC holders who needed to get a diploma in primary school teaching, PTC was also considered as an admission qualification for this programme. For the 1994 cohort 56 had PTC, and for 1995, 40 had PTC. Of the total number of candidates admitted for these two years, 29 had JC level qualification and 10 had COSC level. Their weighted mean performance at JC examinations was 15.5, while that at COSC it was 7.2. This is below the least expected COSC score of 9.0. Admission might have been based on their PTC results, details of which were not available in the College records.

As in the previous two programmes trainees' performance appeared high. In the first year of college work, their scores ranged from a low of 57.8% in science to a high of 78.8% in mathematics. Their yearly weighted mean result was 66.9%. This general trend was also obvious in their second year during which their performance ranged from a low of 59.1% in science to a high of 75.0% in professional studies. Their weighted mean result for the year was 67.4%. In the third year, their scores ranged from a low of 65.5% in English to a high of 74.4% in professional studies. This year's performance gave a weighted mean score of 68.1%. The average overall graduation mean was 68.0%. For the 1994 cohort 20 (36%) had first class pass, 34 (62%) had a second class pass, and only one had a third class pass. For the 1995 group 8 (19%) had first class pass, and 34 (81%) had a second class pass.

None of the three entry characteristics, JC, COSC performance, and years of teaching experience, had any significant relationship with trainees' performance in any subject at college in any of the three years. Of the 20 inter-correlations among trainees' performance in subjects offered at college in the first year, only eleven (55%) were significant. Performance in each of the subjects interrelated significantly in all years. Years of teaching experience was found to relate significantly only with second year performance in Sesotho. Of the 22 inter-correlations among trainees' performance in year two college subjects, 11 (50%) were significant. Only three inter-correlations among trainees' third year performance in their college subjects were significant.

In summary the findings from this analysis of performance give cause for reflection. We can note that:

- Performance levels expressed in terms of percentage scores appear high when compared from what might be expected from candidates with relatively low grade JC and COSC profiles. It is not clear why this should be the case, especially in subjects which are similar to those taken in secondary school. It may be that NTTC examinations are more generous in awarding marks or in the facility of questions than at COSC level.
- COSC does seem to have some predictive power for performance on the PTC. Other selection criteria generally do not. This may be the result of NTTC and COSC essentially testing similar things in written examinations. There is scope to revisit the training College curriculum to establish whether a broader range of attributes might be tested, especially those appropriate to a professional training programme which offers different learning experiences to those provided by school subjects.
- The fact that length of teaching experience does not relate to performance on the APTC brings into question whether it should have been the only criteria for selection.
- If none of the entry criteria for the DPE are related to subsequent performance it may be that the criteria should be reconsidered.

CHAPTER 6

UTILIZATION AND DEPLOYMENT OF NEWLY TRAINED PRIMARY TEACHERS

Data was collected on a sample of graduating students from the PTC programme of NTTTC. Those attending the graduation ceremony in 1998 were asked a series of questions about their future employment as teachers. The sample consisted of 98 graduates from the PTC and Diploma courses and represented about 60% of all the graduates. The sample was 80% female. All students were trained to teach English, Sesotho, mathematics and science. 66% took options in development studies, and 57% in home economics.

The pattern of job application suggested that on average the students had made four applications, excluding the 20% who declined to answer this question. Since 93% of the sample did have jobs it can be assumed that this 20% had acquired their positions without applying i.e. they had received an offer before they completed training and/or they had already been teaching and were returning to the same school. 80% of these graduates were teaching in a primary school, and 6% in a pre-school. Only one had a non-teaching job. 6% indicated they had no job. When the graduates were asked what they would be doing in two years time 32% indicated they would be teaching in a primary school, 3% a secondary school, and 1% a pre-school. 62% said they would be studying for a higher qualification, presumably whilst they were teaching.

It is often argued that newly qualified teachers are discouraged by the prospect of having to work in remote areas. In this sample over 30% had actually found employment in Maseru as the Table 20 shows. These newly qualified teachers were over represented in Maseru and under represented in districts like Quthing and Thaba-Tseka (Table 20).

Table 20: Table Destinations of Graduates

District	Number of Graduates	% Graduates	% Pupil Population	% Schools	% Qualified Teachers
Maseru	34	35	20	17	22
Qacha's Nek	2	2	4	7	4
Leribe	5	5	17	13	17
Berea	8	8	13	9	13
Mafeteng	9	9	12	11	12
Mokhotlong	3	3	4	8	5
Mohale's Hoek	9	9	10	12	9
Thaba Tseka	2	2	6	9	5
Butha Buthe	5	5	7	6	7
Quthing	7	7	7	9	6

Contacts with friends and with school principals were the two major means through which the NQTs secured job after graduation. Contact with school secretariats, and education officers, as well as radio advertisement were other means of securing a job.

About 4% of the graduates apparently went back to work in the schools they taught in before (Table 21).

Table 21: Means of Finding a Job

Means	Percentage
School Secretariat	12
Previous School	6
School Principal	19
Recruitment Drive in College	1
Newspaper Advert	2
Radio Advert	5
Contact with Friends	27
Contact with Family Members	1
Contact with Education Officers	2
Missing	16

The views of graduates on teaching were assessed using a 4-point Likert-type scale as indicated in Table 22. This shows the response pattern including the mean and standard deviation for the sample. The results suggest a number of things.

It seems that a large majority of the sample agree that teaching is the best job they can do. The group were split over whether they would pursue a higher qualification and look for a job. Overwhelmingly they preferred to teach in a primary school. Opinions were mixed on whether teaching is an easy job and whether it was difficult to do well. Most thought their friends would think them lucky to be a teacher and the majority wanted to work in the areas from which they came (Table 22).

Table 22: Opinions of New Graduates from the NTTC

	S Agree	Agree	Disagree	S Disagree
I think teaching is the best job I can do	46	34	7	7
I would rather get a higher qualification and get a different job	24	15	28	26
I would rather teach in secondary than in primary school	9	6	43	34
Teaching is a very difficult job to do well	23	17	29	25
Teaching is easier than many other jobs I could do	25	23	23	22
My friends think that I am lucky to be a school teacher	47	36	6	5
When I qualify as a teacher, I want to work in my home area	37	27	20	10

CHAPTER 7

TEACHER SUPPLY AND DEMAND

The number of qualified and unqualified teachers is shown in Table 23. The proportion of unqualified teachers has fluctuated from 26% to 22% over the last five years and has not been declining systematically. In 1997 there were about 8090 primary teachers of whom about 1820 were unqualified. Table 24 shows the situation in secondary. Here the number of untrained teachers has fallen from 27% to 17% over the last five years. In 1997 there were 3100 secondary teachers of whom about 530 were untrained.

Over 57% of primary teachers are concentrated in the age range 30-50 with only 18% under 30 years old. Of these 63% are unqualified. The average age of qualified primary teachers is 44 years and of unqualified teachers 32 years²¹. This draws attention to the high average age of teachers and the age profile of the cadre which suggests that many are approaching retirement age. Fully 16% are beyond or within five years of retirement age, and a further 9% are within 10 years. Fully 10% of qualified teachers are over 55 years old and will presumably retire soon. 12% of secondary teachers have more than 20 years' service. Expatriates still comprise over 16% of secondary teachers, especially in the science area.

The main implication of the data is that, especially at primary level, the supply of newly qualified teachers has been insufficient to reduce the proportion who are untrained. It may also be a concern that the average age of qualified teachers is so high. Older teachers may be less inclined to innovate and adopt new methods that require retraining and reconceptualising the curriculum.

²¹ Assuming the average age of those over 60 is 63

Table 23: Teachers in Primary Schools by Age and Qualification 1993 – 1997

Age Group	1993		1994		1995		1996		1997	
	Qual	Unqual	Qual	Unqual	Qual	Unqual	Qual	Unqual	Qual	Unqual
15-19	2	11	1	25	1	9	2	10	5	14
20-24	60	373	51	334	63	379	68	338	77	317
25-29	465	584	411	604	404	682	365	648	451	572
30-34	920	339	889	379	803	473	778	525	800	472
35-39	1065	142	994	173	1068	218	987	230	1036	217
40-44	956	79	1000	71	955	84	1005	102	1015	84
45-49	764	23	800	37	895	52	877	54	969	53
50-54	553	21	602	12	637	12	684	20	671	24
55	128	5	85	3	134	5	70	2	172	3
56	63	2	123	3	82	4	128	5	76	1
57	87	4	60		123	6	82	3	135	3
58	71	5	81	2	63	1	116	5	83	2
59	53	1	69	3	88	2	58	1	124	4
=>60	501	55	536	80	603	96	641	94	658	51
Total	5688	1644	5702	1726	5919	2023	5861	2037	6272	1817
%	78	22	77	23	75	25	74	26	78	22

Table 24: Teachers in Secondary Schools by Local or Expatriate and Qualification 1993 – 1997

Age Group	1993		1994		1995		1996		1997	
	Qual	Unqual	Qual	Unqual	Qual	Unqual	Qual	Unqual	Qual	Unqual
Local	1348	602	1557	535	1737	472	1871	466	2082	498
Expat	502	74	473	32	442	58	429	51	490	31
Total	1850	676	2030	567	2179	530	2300	517	2572	529
%	73	27	78	22	80	20	82	18	83	17

The number of new primary teachers needed can be estimated with reference to data on the size of the age cohort, the desired pupil-teacher ratio, and the number of unqualified teachers who need to be replaced. It has been noted earlier that enrolments in primary schools have been declining. From a peak in 1995 of 378,000 they contracted to 368,000 in 1997, the last year for which data is available. This represents a decline of about 1.5% per year. The difficulty is that without knowing the reasons for this decline it is not easy to determine whether or not it will continue.

Some analyses seem to suggest that the decline could be arising from permanent or temporary migration to South Africa of parents and/or pupils and reductions in the size of the age cohort as a result of a decline in the birth rate. There is no evidence to suggest that declining enrolment is a result of a failure of demand for schooling at this level since it seems unlikely that many parents have become less enthusiastic about sending grade 1 children to school. Nor have changes taken place in repetition and dropout rates that would explain the decline. It can be anticipated that the migration that may have occurred in the mid 1990s will slow as South Africa becomes more

restrictive about immigration, and as the main source of jobs for Lesotho nationals (mining) declines in importance. This would have the effect of increasing primary enrolments over what they would otherwise be.

There is evidence that birth rate and therefore the size of the age cohort is declining. This may be because the propensity to have children has declined and /or because of the effects of high rates of HIV/AIDS in the population. The population projections from the 1996 census have three variants which are shown in Table 25. In the low variant the number of 5-9 year olds first grows and then declines as a result of a lower population of 0-4 year olds. This is also true for the mid and high variants over the period.

Table 25: Population Projections by Age Group 1996-2006²²

Age Group	1996	2001	2006
Low			
0-4	302474	274865	310314
5-9	286105	295287	268956
10-14	260437	283735	293036
Medium			
0-4	302474	285269	337232
5-9	286105	295116	284211
10-14	260437	283689	292876
High			
0-4	302474	290859	345762
5-9	286105	295241	278652
10-14	260437	283724	292722

Other analyses see the main causes for dropout and enrolment decline in poverty (Mathot et al 1999). This is plausible, especially in a period where major retrenchment is taking place in South Africa resulting in job losses for migrant workers. Although migrant workers may return with their children, it is thought most left their children in Lesotho. The ability of families to pay school fees will decline with loss of income and it may be that this is a significant cause of the enrolment decline observed.

The neutral assumption used as a starting point at this stage is that the effects of a decline in migration will be offset by a decline in the growth of the school age cohort. If so the enrolment in primary would remain largely unchanged. Projections in the 1997 Education Statistics suggest that the school age population (6-12 years) will grow from 392,800 in 1997 to 408,700 by 2001. This is consistent with the above and is presumably based on the mid-variant. After that time the school age population will begin to decline.

Table 26 projects teacher demand. First let us consider column A. It shows that to achieve a pupil-teacher ratio of 40:1 with current (1997) enrolments would require

²² The reliability of this census data has been challenged e.g. Mathot et al 1999:66. No more recent or reliable projections were available at the time of writing.

9,225 teachers (line 5)²³. This is 1,136 more than the number in post (line 6). In addition it would be necessary to replace those who retire, die in service or decide to follow other careers. If the teacher attrition rate is 5%²⁴ then an additional 461 teachers will be needed (line 8); if it is 10% then the number is 923 (line 10). Thus the total demand for new teachers in 1997 would seem to lie between 1,597 and 2,059. It should be noted that if all unqualified teachers are to be replaced by qualified teachers then it will be necessary to train an additional 1,817 (line 12) teachers who are already in service in schools.

Columns B to E show the additional demand for new teachers that will arise from changes in the projected size of the school age group assuming enrolments follow the same pattern. The number of new teachers required each year from 1998 declines from about 600 to 560 (line 9) or 1,070 to 1,000 (line 11) depending on the attrition assumption. These numbers are in addition to those who need to be trained identified in column A.

The total demand for initial teacher training over the period can be estimated by adding across rows 9 or 11. This produces the result that for 5% attrition 3942 new teachers would be needed and for 10%, 6,229. If these numbers were translated into annual targets for output over each of the next five years would be 788 and 1,246 respectively. The 1,817 untrained teachers (line 12) would need to be trained at a rate of about 360 per year if they were all to be trained within five years.

Table 26 Primary Teacher Projections 1997-2001

		A	B	C	D	E
		1997	1998	1999	2000	2001
1	Age group 6-12 years	392800	398500	403100	406600	408700
2	Primary Enrolment	369000	374355	378676	381964	383937
3	Qualified Teachers	6272				
4	Unqualified Teachers	1817				
5	No. needed at pupil-teacher ratio of 1:40	9225	9359	9467	9549	9598
6	No. in post	8089				
7	New Teachers needed as a result of growth and achieving 1:40	1136	134	108	82	49
8	Retirement etc. at 5%	461	468	473	477	480
9	New Teachers needed	1597	602	602	581	560
10	Retirement etc at 10%	923	936	947	955	960
11	New Teachers needed	2059	1070	1055	1037	1009
12	No. unqualified needing training	1817				

²³ 40:1 has been chosen as the target used in the most recent World Bank simulations (World Bank 1999 Annex 4, Scenario 1.

²⁴ The World Bank uses 5% attrition. This appears not to factor in the effects of rising levels of HIV/AIDS. It is also lower than previous plan estimates. 10% may be more realistic.

There are a number of considerations that should be noted in interpreting these results. The calculations assume that dropout and repetition remain the same as currently. Both are planned to fall. The total enrolments in primary in 1997 (369,000) were not much less than the size of the age group (392,000). However we have noted that only about half of those who enter grade 1 complete grade 7 successfully. The demand for teachers will be affected by reductions in repetition (enrolments will fall) and dropout (enrolments will rise). The net effect will depend on the rate at which these events unfold. It may be easier to reduce repetition than dropout since this is more directly under the control of schools and the MOE. Repetition reduction targets are foreshadowed in the Education Sector Development Plan 1998/99-2000-2001 (1997:12). This suggests that repetition should fall to less than 10% by 2000 but to date there is no evidence that this is happening. If it did it, would significantly reduce the demand for new teachers.

The MOE plans to abolish school fees at primary level from next year. If it does so demand and retention may be expected to rise. The abolition is to be phased grade by grade. The safest assumption at this stage seems to be that this will have an effect on teacher demand as enrolments increase. This may have an immediate impact. Some estimates suggest that as many as 30,000 additional new pupils will enter the system in grade 1 when the policy is implemented. This would generate a need for as many as 750 new teachers. It may also be that repetition in grade 1 will temporarily rise as pupil refrain from entering grade 2 in order to take advantage of fee-free education. The subsequent effects on retention of free education are speculative but seem likely to reduce dropout (Mathot et al 1999:67) and therefore increase enrolments.

The estimates of teacher demand do not take into account that some teachers withdraw from teaching to study for higher qualifications (to upgrade to Diploma or higher levels). If they do so full-time this would increase the demand over the period they are studying. The effect will not be large but could increase demand by 5% or so.

Neither do the estimates account for the possible increase in retirement rate that is likely to occur with the introduction of pensions for teachers. Previously primary school teachers did not receive pensions and there was therefore an incentive to continue to teach up to and beyond retirement age. There were over 650 teachers over 60 in 1997. Since 1998 a scheme has been introduced to provide pensions which will encourage those close to retirement to take their pensions.

Some estimates of enrolment growth are higher than the fairly neutral assumption made above. The World Bank (1999 Annex 4) assumes growth of between 1.5% and 2%²⁵ over the next five years. This would increase the demand for new teachers by up to 200 per year. World Bank projections for teacher demand are however lower than the estimates presented above. They appear not to include the need to qualify the unqualified and they use lower attrition rates. Other projections (Mathot et al 1999:75) suggest the demand for new teachers will be smaller and within the range of current output. The latter assumes improved repetition rates and less dropout with a net effect that will reduce enrolment growth over what it would otherwise be²⁶. Attempts to

²⁵ This appears to be based on different assumptions about the rate of change in repetition and drop out than those made here where their effects on enrolments are assumed to cancel each other out.

²⁶ These projections use a target of 1:45 for the pupil teacher ratio and this is responsible for a large part of the difference in estimates. 1:45 pupil teacher ratio is likely to imply class sizes averaging well

reduce repetition since the early 1990s have not been successful and dropout appears to have been increasing despite attempts to reduce its incidence.

On balance the comments above suggest that the estimates presented are reasonable. In the short term the major factors which will influence them upwards (introduction of fee-free education, increased teacher attrition) seem to outweigh those that could reduce enrolments (significant reductions in repetition, shrinkage of the age group). They may therefore be regarded as minima. It seems unlikely that overall demand will be less than about 800 per year and might exceed 1200 if enrolments do grow faster than projected²⁷.

These estimates of demand for primary training can be compared with the output from the NTTC and data on the destinations of graduates. The fifth Five-Year Plan projected a yearly output of 250 primary teacher graduates. However, lack of adequate hostel facilities at the NTTC and other constraints proved to be an impediment in the realisation of this target. Table 27 below shows the NTTC's primary teachers' graduation rate between 1993 and 1997. Thus the output of newly qualified primary teachers has varied from about 85 to 185, and has been higher in later years. The new DEP programme, which is designed to replace the PTC, has a first year enrolment of 100. The new recruitment for the DEP course in 2000 should exceed 150. This remains below the historic level of new enrolment of the PTC.

Secondary level qualified teachers have been produced at a lower rate than for primary from NTTC of between 50 and 80 per year. When this output is combined with the degree level output from the National University it is clear that overall more secondary than primary teachers are being trained. This is anomalous given the pattern of demand indicated by the number of teachers who need to be trained at either level.

over 50. These lower estimates do not seem to apply an attrition rate to new teacher demand. If so they are under estimates. Neither do they account for the need to qualify the unqualified.

²⁷ Even if the higher target of a pupil teacher ratio of 45:1 were adopted, rather than 40:1, this would only make a difference to these estimates of about 200 fewer teachers per year.

Table 27: Number of Teachers Trained by Qualification for 1993 –1997²⁸

Course	1993		1994		1995		1996		1997	
	Admit	Grad	Admit	Grad	Admit	Grad	Admit	Grad	Admit	Grad
Primary NTTC										
PTC	130	84	115	84	125	124	125	99	138	127
APTC					59	59	59	50		
DPE									46	46
Total	130	84	115	84	184	183	184	149	195	184
Secondary NTTC										
STC	61	59	61	59	51	51	51	51	86	84
STTC	11	11								
DTE	7	4	5	5	14	13	14	11	17	15
NUL Degree										
BAED		60		58		3				
BSCED		18		24		22		38		35
BED		36		64		64		44		73
PGCE		14		14		2		10		12
MED		5		9		4		3		3
Total		207		233		159		157		222

From MOE records we have tried trace the graduates from primary courses in NTTC from 1993 to 1997. The result is shown in Table 28.

Table 28: Graduates from NTTC and Career Destinations

	No. Qualifying	No. Employed as Teachers	No. Unaccounted for in Records	% Attrition
1993	84	66	18	21
1994	84	79	5	6
1995	183	153	30	16
1996	149	118	31	21
1997	184	157	27	15

The records show that the output of trained teachers from the PTC and DPE who can be traced into teaching varies from 66 to 157 per year. These may be slight underestimates since it is possible that changes in name have confounded the analysis. Nevertheless the number of new teachers each year cannot be more than the number qualifying and DPE teachers are not new. The implication of the Table is that between 5% and 15% of primary teachers fail to enter the teaching profession after qualifying. In addition the failure rate on the NTTC training programmes has tended to be between 5% and 15% after resits. It would therefore seem that training targets have to be between 10% and 20% higher than the number of teachers required. Thus to produce 1,000 new teachers per year may require annual admission targets of 1,100 to 1,200. These figures are up ten times larger than current output (or four to five times projected enrolment on the DEP of 250 entrants each year).

²⁸ Based on information in yearly Educational Statistics, Planning Unit, Ministry of Education, Maseru, Lesotho and excluding LIET upgrading.

It is therefore evident that the output is significantly below the estimates made above of the need for training and for new teachers. The difference may be even larger than suggested if free primary education has a large impact on demand and attrition rates grow as a result of HIV and other factors²⁹. This implies clearly that the pupil-teacher ratio will rise in the future unless the output of qualified teachers is increased substantially to a number nearer the level of projected demand.

Currently the cost per year of training a teacher at primary level is about M10,000³⁰. To produce 1,100 new teachers a year in the existing system would require an enrolment of 3,300 at a cost of about M33 million. This would represent more than 7% of MOE total expenditure without including the cost of secondary training, or of qualifying the unqualified.

In addition to these costs the resources needed to upgrade the unqualified have to be considered. It is proposed that the successor to LIET PTC should enrol about 250 students on an annual basis from 2001 (LIET PTC accepted 450 into a three-year cohort every three years). This would generate a similar output to the existing system spread over three years. The salary costs of the existing programme appear to be about half of those for full-time courses. Other costs depend on how the new programme is organised. If residential time is reduced (through the greater use of outreach centres) and travel, allowances and material costs are controlled, it may be that this training can be delivered for half or less of the unit cost per full-time initial student. This suggests that training of this kind might build up to a recurrent yearly cost of somewhat less than M4 million (excluding start up costs).

The same methods used to project primary teacher training needs can be used for secondary. It is anticipated that secondary enrolments will grow to meet the target of 40% of the school age group enrolled. The historic rate of growth in enrolments over the last decade has been about 6%. If this is continued it should be sufficient to reach the target assuming high rates of dropout are reduced. It would result in a gross enrolment rate of about 66% after five years which should allow the target of 40% net enrolment to be achieved.

The projection shows that in 1997 there were enough teachers to support a pupil-teacher ratio of 1:25³¹. This ratio has been retained for these estimates since the teacher per class ratio in secondary schools averages about 1.8:1 giving a typical class size of 45, which can be regarded as an upper desirable limit for secondary schools. The demand for new teachers is negative. If teacher attrition is 10% or more then a small number (44) of new teachers are needed. Between 1,253 and 2,120 new teachers will be needed over five years if enrolments grow as projected. This translates into an annual demand of 250 to 425. The lower figure is comparable to current output. If all

²⁹ Other countries in the region, which appear to have experienced high rates of HIV infection earlier than in Lesotho, have seen teacher attrition grow rapidly. This may or may not prove to be the case in Lesotho.

³⁰ If the NTTC primary unit costs is adjusted to take account of failure and early years attrition this would seem an appropriate estimate.

³¹ If this pupil teacher ratio were to fall to 1:30, the figure used in Scenario 1 World Bank 1999) this would reduce demand by around 100 per year. It would imply class sizes of 50 or more given typical teacher class ratios.

those who are unqualified were trained over five years this would require an annual upgrading programme for about 100 a year (Table 29).

Table 29: Secondary Teacher Projections 1997-2001

		A	B	C	D	E
		1997	1998	1999	2000	2001
1	Age group 13-17	250090	254313	258907	263748	268851
2	Enrolment Growth at 6%	71475	75764	80309	85128	90236
3	Qualified	2572				
4	Unqualified	529				
5	No. needed at ptr 1:25	2859	3031	3212	3405	3609
6	No in post	3101				
7	New Teachers needed as a result of growth and achieving pupil-teacher ratio of 1:25	-242	172	182	193	204
8	Retirement etc. at 5%	143	152	161	170	180
9	New Teachers needed	-99	323	323	342	363
10	Retirement etc at 10%	286	303	321	341	361
11	New Teachers needed	44	475	503	533	565
12	No. unqualified needing training	529				

The cost of training 250 secondary school teachers a year can be estimated. Those trained through STC are having unit costs around M18,000³² per year. Those trained in NUL may cost as much as M75,000 per year. If the training is divided equally between 3 year STC and 4 year degree routes the annual cost for an output of 250 will be M6.75 million (STC) + M28.13 million (Degree) = M34.88 million per year. Thus, despite the smaller numbers, this would cost marginally more than meeting the much larger demand for new primary teachers. It would represent a further 7% of the total education budget. It does not include the cost of upgrading unqualified teachers. If these were upgraded through similar methods to the proposed new distance teacher education project the recurrent costs could be less than 1M million per year if the training was spread over several years.

We note that it may be preferable to expand secondary teacher training at STC level for three reasons. First, STC is much cheaper to provide than degree level courses. Second, STC holders are much cheaper to employ since they are on lower salary scales. Third, it is believed that teacher attrition rates amongst STC holders are lower than amongst degree holders. These cost related reasons have to be balanced against the desire to staff secondary schools with university graduates, especially in the higher grades.

The demand for secondary teachers may be greater than is suggested. The main reason for this is that attrition rates at this level may be much higher. Recent research

³² Taking into account higher unit costs at secondary in NTTTC and probable rates of early career attrition

(Williams 1998:48) shows that gross attrition rates for those with STC have been over 50% during the first five years after qualifying. This implies that as many as twice as many teachers may need to be trained than those indicated by the pattern of demand.

The last observation relates to the supply side of the teacher training equation and affects both primary and secondary teacher supply. The numbers passing COSC have grown only slowly (Table 30). There were 1,980 successful candidates in 1998 who obtained class 1, 2 or 3 passes. It is clear that the recurrent demand for primary and secondary teachers cannot be met on a recurrent basis from these graduates. However, full COSC certification is not required for entry to teacher training. Four credits and one pass suffice. The reason many candidates are not fully certified is that they fail in English. In recent years almost all those admitted to NTTC have met these minimum requirements. Some have higher aggregates than those obtaining full certification. The new DEP programme has been able to recruit without finding difficulty in meeting its target numbers for 1999 (about 180 have been selected). The target from 2000 for this programme is 250 which is judged achievable without changing admissions standards.

Two points are salient. First there is some level at which the supply of qualified applicants may be problematic. It is difficult to ascertain what this is but it may well be below the level of demand projected, especially if it is remembered that the pool of qualified applicants includes those training for secondary who have similar entrance requirements. Second, the situation with regard to English passes may give rise to some concern. It may be that the COSC English examination is not a good indicator of proficiency sufficient to teach in English as a medium of instruction. If it is not then there would seem to be a case to develop an appropriate standardised test to perform this function.

Table 30: Pass Rates at COSC 1990-1998

	Class 1	%	Class 2	%	Class 3	%	Total SC	%SC Pass	GCE	%	Fail		Total
1990	74	2.3	243	7.5	581	18.0	898	27.8	2195	68.0	136	4.2	3229
1991	72	2.1	347	10.1	694	20.2	1113	32.3	2155	62.6	174	5.1	3442
1992	65	1.8	325	9.0	641	17.8	1024	28.4	2401	66.5	176	4.9	3608
1993	94	2.4	365	9.3	547	13.9	1006	25.6	2851	72.6	69	1.8	3926
1994	150	3.7	444	11.0	957	23.6	1551	38.3	2436	60.2	60	1.5	4047
1995	86	1.8	410	8.7	856	18.2	1352	28.8	3252	69.2	93	2.0	4697
1996	93	1.8	529	10.1	1181	22.5	1803	34.3	3343	63.7	105	2.0	5251
1997	95	1.8	598	11.0	1279	23.6	1972	36.4	3338	61.5	114	2.1	5424
1998	55	0.9	605	10.1	1319	22.0	1979	33.0	3903	65.1	110	1.8	5992

The implications from this analysis of supply and demand can be summarised.

- First, the primary teaching cadre contains over 20% (1,800+) unqualified teachers and this proportion has not been declining significantly. At secondary level the numbers unqualified have diminished from 27% to 17% over the last five years. The remaining unqualified teachers need training.
- Second, the growth rate in primary enrolments is uncertain. It seems most likely that numbers will increase at around the projected rate of school age population

growth. They may temporarily exceed this during the transition to free primary education

- Third, reasonable estimates of the demand for training at primary level appears to be at least 1,000 to 1,200 per year and may be more depending on the assumptions made. This translates into annual admission targets of about 1,200-1,400 accounting for wastage and early career attrition. It implies that total enrolment in primary training would need to be between 3,600 and 4,200 if three-year courses are maintained.
- Fourth, current and recent output has averaged less than 150 qualified primary teachers per year not all of whom appear to be teaching. Targeted output from the DEP is 250 per year by 2003. The comparison with projected demand is striking. Unless more teachers are trained pupil-teacher ratios will rise.
- Fifth, all untrained teachers could be qualified in-service over five years at an annual training rate of about 360 per year.
- Sixth, there is no serious shortfall in teacher training for secondary level. However, between 250 and 425 a year will have to be trained to meet likely enrolment growth. This estimate may be conservative if the attrition rate is much more than 10%.
- Seventh, the policy on teacher recruitment needs to recognise that there are limits imposed by the numbers of qualified candidates graduating from secondary schools who are likely to choose teaching as a career. It may also need to reconsider admission criteria relating to competence to teach using English as a medium of instruction.

CHAPTER 8

PRELIMINARY CONCLUSIONS

This analysis raises a number of issues relevant to costs and efficiency in planning the future of teacher education in Lesotho. The authors are aware that many of these are matters of current discussion. This research seeks to contribute to the debate on the ways forward.

This study has indicated how the teacher education system in Lesotho has developed. It has drawn attention to the evolution of initial training from a complex multi-stage process to one which provides a single pathway for school graduates into primary teaching and an upgrading route for those with PTC wishing to reach Diploma level. The output of new primary teachers has fluctuated but seems set to be consolidated at about 250 per year. NTTC has expanded its residential capacity and will shortly have facilities sufficient for more than 1,000 student teachers.

These changes have taken place against a background of educational development policy which has favoured the development of participation and quality improvement at primary level, but which has proved difficult to implement successfully. Progress has been slow on several fronts and hoped for reductions in repetition, dropout and class size have not been achieved to date. Macro-economic conditions have not been favourable to real growth in the education budget. Poverty, and hence the ability to pay school fees and those levied by the NTTC for tuition, has probably been increasing, not least as a result of retrenchment in South Africa.

New policy related to the Education Sector Development Plan identifies a range of targets for the MOE which will increase participation and retention, reduce class size and pupil-teacher ratios, improve the transition rate into secondary and ensure that all teachers are trained. These targets are ambitious. The analysis suggests that in order to reach them the output of the training system will have to increase.

We have selected eight issues for further comment in drawing this study together.

- First, it is clear that there is a need to continuously monitor enrolment growth and teacher supply and demand. The existing data is patchy and sometimes conflicting on key parameters that will affect teacher demand and supply. The key uncertainties have been identified. These include the extent of migration of families and pupils to South Africa, the characteristics of the demographic transition that may be taking place to lower birth rates, the prevalence of HIV amongst different groups including teachers, the rate of take-up of teaching posts and attrition in-service of qualified teachers, the effects of fee-free primary schooling, and the impact of policy to reduce repetition and dropout. All of these need careful periodic assessment to chart their impact on teacher demand.
- Second, it appears that teacher supply is inadequate to meet projected demand. The situation at primary level is serious if targets are to be met. Output would need to exceed 1,000 new teachers a year (implying an enrolment on three year

courses in excess of 3,000). This can be compared with the current output of less than 200 per year and the projected output of 250.

The supply of secondary trained teachers is much closer to projected demand. Relatively small increases in output would meet projected demand created by the planned expansion. It is anomalous that more secondary teachers are currently trained than primary.

- Third, the costs of expanding the existing training system are unsustainable. Meeting the lower levels of projected demand for both primary and secondary teachers could consume nearly 15% of the MOE recurrent budget at current cost levels. This excludes the cost of training the unqualified.
- Fourth, if planned targets are to be met then new teachers will need to be trained at lower costs and upgrading will have to be achieved efficiently. The capacity of primary initial teacher education will need to be expanded significantly. Demand appears to exceed the likely capacity of NTTC for full-time residential courses if this is bounded by a maximum of 1,000-1,200 full-time equivalent students.
- Fifth, it is possible that increases in internal efficiency could result in an NTTC output of perhaps double the existing level of less than 200 primary and 100 secondary teachers through timetable and course rationalisation, and more efficient deployment of staff and facilities. This alone would not generate enough additional capacity to meet plan targets. It would reap economies of scale on fixed costs and lower the cost per trained teacher. Greater increases in output might require additional staffing.
- Sixth, consideration should be given to reductions in the length of full-time tuition during training to the extent that these are consistent with maintaining quality. Reductions in course length could produce pro-rata reductions in costs. Increased periods of teaching practice may also produce savings (and professional benefits especially for those without teaching experience). The latter depends on how teaching practice is organised, whether it is remunerated, and how it is supported.
- Seventh, mixed-mode part-distance supported initial teacher training may be considered as an option to extend the reach of NTTC and to reduce the costs of training per qualified teacher. Currently it is used for in-service upgrading of unqualified teachers and this is likely to continue under a new pattern of course organisation. It is difficult to see how likely demand can be met without exploring ways of increasing the capacity of NTTC to support initial training. It should however be remembered that mixed-mode delivery may or may not result in cost savings which can be translated into greater output. This depends on the methods adopted and the quality of the programmes.
- Eighth, it is proposed that NTTC becomes semi-autonomous. This could be beneficial if it results in greater internal efficiency. The current historic funding system does not apparently provide incentives to increase efficiency and effectiveness. Formula funding based on an appropriate algorithm of admissions, output and successful employment might be advantageous. It would seem inevitable that most of the recurrent costs will continue to attract government

subsidy directly, or through subsidies to students. Teachers' salaries are unlikely to move to levels where private rates of return would generate sufficient applicants for full cost recovery.

REFERENCES

- Burke A, Sugrue C, and Williams T (1994) *Teaching and Learning at the NTTC* Consultancy Report, Maseru, Ministry of Education
- Government of Lesotho (1985) *National Literacy Survey*. Maseru
- Government of Lesotho (1996), Population Census Analytical Report Vol IIIB 'Socio-Economic Characteristics and Population Projections'. Bureau of Statistics, Maseru 1996.
- Government of Lesotho (1998) Pass List for Cambridge Overseas School Certificate. Examinations Council of Lesotho, Maseru
- Institute of Development Management (IDM) (1997) NTTC Costing Consultancy, Final Report, IDM Maseru
- Mathot G with Mohatla M, Gay J, and Hall D, (1999) *Poverty Assessment: Education Component*, Sechaba Consultants, Maseru
- Ministry of Education (1991), *Impact Assessment: The Education Sector Development Plan 1991/2-1995/6*, Planning Unit, Maseru
- Ministry of Education (1996) 'Indicators for Educational Planning and Policy Formation', .. Planning and Statistics Dept. Maseru
- Ministry of Education (1997a) *Education Sector Development Plan 1998/99-2000-2001* Maseru
- Ministry of Education, (1997b) *Education Statistics*
- Rumble G (1997) *The Costs and Economics of Open and Distance Education*. Kogan Page
- UNDP (1999) *Human Development Report for Lesotho*. UNDP Maseru.
- World Bank (1999) Project Appraisal Document: Education Sector Development. Project in Support of the First Phase of the Education Sector Program Feb 18th 1999. Africa Region. report No 18388-LSO Washington DC
- Williams T, (1998) *Secondary Teaching in Lesotho: Who Stays, Who Leaves?* NTTC Maseru

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