## EDUCATION

## Introduction

The vision of the Western Cape Education Department (WCED) is to provide effective education for all. The delivery of this important function results in the WCED being personnel driven with 37000 employees making up $55 \%$ of the total number of employees of the Western Cape Provincial Government.

## Spending Trends

In Table 1, the Department's actual expenditure from 1997/98 to 2001/02, voted expenditure in 2002/03 and current MTEF allocations for 2003/04 and 2004/05 are shown.

Table 1:Expenditure 1997/98 to 2004/05 (Nominal Rand Value)

| PROGRAMME | Actual |  |  |  |  | Voted | Medium-term estimate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { 1997/98 } \\ \text { R'000 } \end{gathered}$ | $\begin{gathered} \text { 1998/99 } \\ \text { R'000 } \end{gathered}$ | $\begin{gathered} \text { 1999/2000 } \\ \text { R'000 } \end{gathered}$ | $\begin{gathered} \text { 2000/01 } \\ \text { R'000 } \end{gathered}$ | $\begin{gathered} \text { 2001/02 } \\ \text { R'000 } \end{gathered}$ | 2002/03 <br> R'000 | 2003/04 <br> R'000 | $\begin{gathered} \text { 2004/05 } \\ \text { R'000 } \end{gathered}$ |
| Administration | 122835 | 73244 | 75422 | 71142 | 96845 | 106406 | 110288 | 115982 |
| Public Ordinary School Education | 3147898 | 3052635 | 3057610 | 3227285 | 3440317 | 3608391 | 3796386 | 3964754 |
| Independent School Education | 29977 | 38942 | 16762 | 16831 | 22112 | 23850 | 25043 | 26345 |
| Schools for learners with special educational needs | 269914 | 273956 | 263811 | 276410 | 293725 | 302694 | 317814 | 334340 |
| Further education and training | 86593 | 93829 | 107741 | 114104 | 125859 | 134350 | 142536 | 149948 |
| Early child and adult education | 21776 | 16257 | 68882 | 61159 | 36899 | 68091 | 70160 | 71808 |
| Curriculum planning | 20868 | 20197 | 39882 | 40959 | 75608 | 75428 | 83955 | 88270 |
| Specialised services | 19309 | 63955 | 35039 | 33064 | 42528 | 45318 | 47434 | 46444 |
| Education management and development | 51745 | 91600 | 99408 | 106399 | 103670 | 139586 | 144767 | 153032 |
| Teacher education | 70495 | 59573 | 42770 | 25256 | 35650 | 28849 | 27594 | 25821 |
| Total | 3841410 | 3784188 | 3807327 | 3972609 | 4273213 | 4532963 | 4765977 | 4976744 |
| Percentage differences - Nominal Growth |  |  |  |  |  |  |  |  |
| Administration |  | $(40,4)$ | 3,0 | $(5,7)$ | 36,1 | 9,9 | 3,6 | 5,2 |
| Public Ordinary School Education |  | $(3,0)$ | 0,2 | 5,5 | 6,6 | 4,9 | 5,2 | 4,4 |
| Independent School Education |  | 29,9 | $(57,0)$ | 0,4 | 31,4 | 7,9 | 5,0 | 5,2 |
| Schools for learners with special educational needs |  | 1,5 | $(3,7)$ | 4,8 | 6,3 | 3,1 | 5,0 | 5,2 |
| Further education and training |  | 8,4 | 14,8 | 5,9 | 10,3 | 6,7 | 6,1 | 5,2 |
| Early child and adult education |  | $(25,3)$ | 323,7 | $(11,2)$ | $(39,7)$ | 84,5 | 3,0 | 2,3 |
| Curriculum planning |  | $(3,2)$ | 97,5 | 2,7 | 84,6 | $(0,2)$ | 11,3 | 5,1 |
| Specialised services |  | 231,2 | $(45,2)$ | $(5,6)$ | 28,6 | 6,6 | 4,7 | $(2,1)$ |
| Education management and development |  | 77,0 | 8,5 | 7,0 | $(2,6)$ | 34,6 | 3,7 | 5,7 |
| Teacher education |  | $(15,5)$ | $(28,2)$ | $(40,9)$ | 41,2 | $(19,1)$ | $(4,4)$ | $(6,4)$ |
| Total |  | $(1,5)$ | 0,6 | 4,3 | 7,6 | 6,1 | 5,1 | 4,4 |

Source: 2002/03 WCED inputs for Intergovernmental Fiscal Review (IGFR); Western
Cape Provincial Budget, 2002

Comparing actual expenditure in 2001/02 to budgeted funds in 2002/03, a nominal increase of $6,1 \%$ in total expenditure for the vote is discerned. Assuming a $6,9 \%$ inflation rate, this constitutes a drop of $0,8 \%$ in real terms from 2001/02 to 2002/03. By implication it means that WCED has fewer funds available this year than they had available for the 2001/02 financial year. This is, however, not a concern as close to $90 \%$ of the WCED budget is spent on personnel, which was assumed to have a potential growth (salary increase) of 6\% as opposed to inflation of $6.9 \%$.

Between 1997/98 and 2001/02 a nominal annual average increase of 2,7\% constitutes a real decrease across the period, decreasing in each individual year. From 2001/02 to 2004/05 the annual nominal movement is $5,2 \%$, but the mostly negative year-on-year real movements ( $0,8 \%$ to 2002/03; $0,6 \%$ to 2003/04; $0,3 \%$ to 2004/05) give us a clearer picture of the relative availability of funds to this Department.

## Public Ordinary School Education 1997/98 to 2004/05

Programme 2: Public Ordinary School Education accounts for $80 \%$ of the total spending of the Vote. The movement in Programme 2 affects the movement of the Vote as a whole, as the major function of WCED is included under this programme, namely to provide public ordinary school education. Total movement for Programme 2 from 1997/98 to 2001/02 shows an annual average increase of $2,2 \%$ in nominal terms, whereas there are real decreases through the years with 2001/02 showing a break even of funds in real terms compared with 2000/01.

For the period 2001/02 to 2004/05 there is an annual average nominal increase of $4,8 \%$, which constitutes an overall reduction of funds for the Vote in real terms.

## Conditional Grants

As is evident from Table 2, conditional grants increased annually but WCED's ability to spend the earmarked funds decreased from 100\% in 1999/2000 to 65\% of budget in 2001/02. Note must be taken of the fact that R5,273 million roll-over funds from 2000/01 (R1,474 million for HIV/Aids and R3,799 million for Financial Management) are included in the 2001/02 budget. Five months or $42 \%$ into the 2002/03 financial year, $23 \%$ of the total conditional grant funds are spent, suggesting that a projected full spending of 2002/03 earmarked funds may not be achieved. As at 31 August 2000, 36\% of the Financial Management and Quality Enhancement grant was spent with only 17,96\% spent on Early Childhood Development (ECD) and 7,75\% on HIV/Aids.

The underspending is not entirely due to the non-performance of the department as some reasons are beyond the control of the Department.

Table 2: Conditional grants (Nominal Rand Value)

| CONDITIONAL GRANT | Actual |  |  |  | Voted | Medium-term estimate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{c\|} \hline \text { 1998/99 } \\ \text { R'000 } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { 1999/2000 } \\ \text { R'000 } \\ \hline \end{array}$ | $\begin{gathered} \hline 2000 / 01 \\ \text { R'000 } \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { 2001/02 } \\ \text { R'000 } \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { 2002/03 } \\ \text { R'000 } \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { 2003/04 } \\ \text { R'000 } \end{gathered}$ | $\begin{gathered} \hline \text { 2004/05 } \\ \text { R'000 } \end{gathered}$ |
| Budget <br> Early Childhood Development |  |  |  | 1659 | 5040 | 6952 |  |
| Financial Mgt | 1551 | 15168 | 15168 | 20626 | 21721 | 18519 | 19630 |
| HIV/Aids |  |  | 2297 | 6491 | 16318 | 9275 | 9869 |
| Total | 1551 | 15168 | 17465 | 28776 | 43079 | 34746 | 29499 |
| Spending |  |  |  |  |  |  |  |
| Early Childhood Development |  |  |  | 727 | 905 |  |  |
| Financial Mgt | 1551 | 15168 | 11369 | 16626 | 7819 |  |  |
| HIV/Aids |  |  | 823 | 1391 | 1265 |  |  |
| Total | 1551 | 15168 | 12192 | 18744 | 9989 | - | - |
| Budget spent | 100,0\% | 100,0\% | 69,8\% | 65,1\% | 23,2\% | 0,0\% | 0,0\% |

Source: Western Cape IGFR 2001; In-Year Monitoring at 31 August 2002; Western Cape Provincial Budget, 2002

The Early Childhood Development (ECD) conditional grant phases out at the end of the 2003/04 financial year, whereafter it will become part of the equitable share funding.

## Personnel Spending

In Table 3 below, expenditure on personnel vis a vis non-personnel is set out. The educator numbers in institutions have decreased from a total of over 34000 during 1997/98 to a current figure of approximately 27600 . This is mainly due to the decrease in real terms of funds available to the WCED as well as an attempt to correct the personnel : non-personnel ratio. A measure to reduce the number of educators was to offer voluntary severance packages (VSP) from 1997/98 as well as mutually agreed severance packages (MASP) as from 2001/02 for qualifying educators in an attempt to further reduce educator numbers.

Table 3: Personnel vis a vis Non-personnel Expenditure 1997/98 to 2004/05

| CLASSIFICATION | Actual |  |  |  |  | Voted | Medium-term estimate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { 1997/98 } \\ \text { R'000 } \end{gathered}$ | $\begin{gathered} \text { 1998/99 } \\ \text { R'000 } \end{gathered}$ | $\begin{gathered} 1999 / 2000 \\ R^{\prime} 000 \end{gathered}$ | $\begin{gathered} \hline \text { 2000/01 } \\ \text { R'000 } \end{gathered}$ | $\begin{gathered} \text { 2001/02 } \\ \text { R'000 } \end{gathered}$ | $\begin{gathered} \text { 2002/03 } \\ \text { R'000 } \end{gathered}$ | $\begin{gathered} \text { 2003/04 } \\ \text { R'000 } \end{gathered}$ | $\begin{gathered} \text { 2004/05 } \\ \text { R'000 } \end{gathered}$ |
| Personnel | 3411905 | 3373501 | 3317911 | 3541816 | 3715541 | 3896495 | 4082660 | 4260397 |
| Non-personnel | 429505 | 410687 | 489416 | 430793 | 557672 | 636468 | 683317 | 716347 |
| Total | 3841410 | 3784188 | 3807327 | 3972609 | 4273213 | 4532963 | 4765977 | 4976744 |
| Ratio | 89:11 | 89:11 | 87:13 | 89:11 | 87:13 | 86:14 | 86:14 | 86:14 |
| Inclusion of IT and Works |  |  |  |  |  |  |  |  |
| Personnel | 3411905 | 3373501 | 3317911 | 3541816 | 3715541 | 3896495 | 4082660 | 4260397 |
| Total Nonpersonnel | 499778 | 449819 | 527134 | 486600 | 643148 | 754226 | 803941 | 850309 |
| Non-personnel | 429505 | 410687 | 489416 | 430793 | 557672 | 636468 | 683317 | 716347 |
| IT | - | - | 4592 | 4920 | 25000 | 40000 | 42295 | 42295 |
| Works | 70273 | 39132 | 33126 | 50887 | 60476 | 77758 | 78329 | 91667 |
| Total | 3911683 | 3823320 | 3845045 | 4028416 | 4358689 | 4650721 | 4886601 | 5110706 |
| Ratio | 87:13 | 88:12 | 86:14 | 88:12 | 85:15 | 84:16 | 84:16 | 83:17 |

Source: Western Cape IGFR 2001; Western Cape Provincial Budget, 2002
The recent upward quarterly review of home owners' allowances affected the personnel budget of WCED negatively. By the beginning of April 2002, approximately 15500 (42\%) WCED personnel received home owners' allowances. The full effect of this pressure will be felt into the 2002/03 financial year as the interest rates rise, giving rise to an increase when housing allowances are revised quarterly.

A higher than expected increase in medical aid contributions will also have an effect on the WCED's budget as the Department will have to accommodate resultant increases in expenditure from available funds. The unknown annual increase may increase the personnel budget and lead to further cuts in nonpersonnel spending. Approximately 20000 (54\%) personnel make use of medical schemes.

The increase in personnel expenditure from 2001/02 to 2002/03 is $4,9 \%$, which accounts for the provision for the Improvement of Conditions of Services (ICS). The increase in non-personnel expenditure is higher (14,1\%), indicating that more funds are allocated for service delivery in line with WCED's aim of moving towards (and beyond) the 85:15 ratio ${ }^{1}$.

The aim of WCED is to reach the $85: 15$ ratio of personnel to non-personnel spending in 2005. The ratio was 89:11 in 1997/98, dropping to 87:13 in 2001/02, and is projected to reach 86:14 in 2002/03. The fact that WCED funds located under the Works and Information Technology branches are excluded from this calculation should be taken into account. The inclusion of these funds results in the desired personnel to non-personnel ratio having already been reached in

[^0]2001/02. It is projected to decrease even further over the MTEF period and should reach 83:17 by 2004/05.

## Educator: Learner Ratio

In 1997 there was a total of 905976 learners and this total decreased to 878475 in 2001. The projected learner numbers from 2002/03 and through MTEF is 880000 , which will have to be revised upwards in view of recent tendencies and revised admission ages. The average educator: learner ratio for primary schools alone moved up from 1:36 in 1997 to 1:39 in 2001 and the ratio for secondary schools currently stands at 1:33.

## Learners in the Schooling System

Learners entering the education system have decreased in recent years. One reason for the decline is that primary school learners starting with grade 1 decreased by 30000 in 2000 when the admission age for learners changed from 6 to 7 years. This would have meant a carry-through effect in the following years as these learners progress up to grade 12 and exit the system. However, the admission age has reverted back to learners aged 6 years entering the school system, the full effect of which will only be felt in 2004.

## Classroom Shortages

Table 4: Classroom Shortages

| Actual | Projected |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1997/98 | 1998/99 | 1999/2000 | $\mathbf{2 0 0 0 / 0 1}$ | 2001/02 | 2002/03 | 2003/04 | 2004/05 |
| Class shortages | 560 | 650 | 750 | 1250 | 2500 | 2000 | 1256 | 1373 |

Source: WCED budget office
The average learner: classroom ratio in schools is currently 28:1. In public schools on private land where owners receive rental for the number of classrooms necessary for enrolment, the norm used to calculate rent is 39:1 for primary schools and $33: 1$ for secondary schools. There are areas with spare capacity and areas with a lack of capacity.

There are classroom shortages and plans have been put in place to attempt to address the 2500 instruction room shortage in the medium term. The shortage will be addressed by using a core school system, where good quality prefabricated classrooms are put in place relatively quickly making use of standard plans. Specialist facilities are then built later. Such schools become available within six months, whereas it takes 31 months to complete the planning and construction of permanent schools.

The shortage of classrooms increased consistently from 560 in 1997/98 to 2500 in 2001/02. The projection for 2002/03 and MTEF indicates that these shortages will decrease to 2000 in 2002/03 and even further to 1373 in 2004/05.

## Capital/Infrastructure spending overall (including amounts reflected under the Transport and Public Works vote)

The budget for capital projects and maintenance is provided for under Vote 10: Transport and Public Works. Since the inception of WCED during 1995, 64 new schools and 46 extensions have been built, resulting in an additional 2203 available classrooms.

The infrastructure backlog (new and maintenance) in education has been estimated at more than R1 100 million and will take several years to address, given budgeted funds of R77,758 million in 2002/03.

Spending on school maintenance totalled R61,863 million in 1997/98 and decreased to R21,761 million in 1999/2000. In 2001/02 an amount of R60,331 million was spent. Budgeted funds decrease to R52,584 million in 2002/03 and decrease even further over the MTEF to R18,497 million in 2004/05. Provision for day-to-day maintenance in 2002/03 is not included.

## Senior Certificate Candidates

Table 5: Learners Writing the Senior Certificate Examination

|  | Actual |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{1 9 9 7}$ | $\mathbf{1 9 9 8}$ | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ |
| Learner Numbers | 37,197 | 38,600 | 37,199 | 37,818 | 37,559 |
| Pass rate | $73,3 \%$ | $79,0 \%$ | $78,8 \%$ | $80,6 \%$ | $82,7 \%$ |

Source: WCED budget office
The average results of learners in the Senior Certificate Examination have been considerably better than those of the next best province for the last number of years. In 2001, however, the Western Cape had the second best pass rate even though the pass rate increased further to $82,7 \%$. The Western Cape had a $73,3 \%$ pass rate in the matriculation examination in 1997 and this rate improved to $82,7 \%$ in 2001 with only the Northern Cape achieving a better pass rate. The enrolments for the matriculation examination were fairly constant over the past five years, with enrolments dropping slightly by 259 learners between 2000 and 2001.

Schools that performed well in the Senior Certificate Examination relative to their socio-economic situation as well as schools whose performances in these examinations improved considerably were rewarded with participation in the Mathematics and Science project, which is part of the wider Khanya ${ }^{2}$ project. This reward system will continue in 2002 and over the MTEF as part of WCED's priorities contained in their strategic plan.

The Khanya project was started by WCED as a pilot project and receives priority within the Department. Its aim is to ensure that, by the start of the 2012 academic year, every educator in every school of the Western Cape will be empowered to use appropriate and available technology to deliver curricula to each and every learner. This project was also identified as a special need in the first Fiscal Policy (2001 - 2004) as well as the E-Com project and the Mathematics and Science project. Measures have been taken to ensure that, by the end of 2002, every school has at least one computer for administrative use as well as for electronic communication.

## Pass-Through Rates

As can be seen from Table 6, there was a constant decrease in learners passing through the schooling system. From the learners that entered grade 1, 63,59\% successfully completed primary school (grade 7) and only $25,5 \%$ eventually passed grade 12.

Table 6: Pass-Through Rates Pupils Ages 6 and 7

| Grades | Calculated Western <br> Cape Index | Annual pass rate | Annual failure rate |
| :--- | :---: | :---: | :---: |
| Grade 1 | 100,00 | 90,54 | 9,46 |
| Grade 2 | 90,54 | 94,12 | 5,88 |
| Grade 3 | 85,21 | 92,26 | 7,74 |
| Grade 4 | 78,61 | 91,98 | 8,02 |
| Grade 5 | 72,31 | 93,87 | 6,13 |
| Grade 6 | 67,87 | 95,51 | 4,49 |
| Grade 7 | 64,82 | 98,09 | 1,91 |
| Grade 8 | 63,59 | 88,50 | 11,50 |
| Grade 9 | 56,28 | 86,24 | 13,76 |
| Grade 10 | 48,53 | 79,15 | 20,85 |
| Grade 11 | 38,41 | 82,80 | 17,20 |
| Grade 12 | 31,81 | 80,17 | 19,83 |
| Pass Gr 12 | 25,50 |  |  |

Source: De Villiers (1997, 1999), Research Institute for Education Planning (1999), Western Cape School Surveys and as further calculated by the author

Of the total number of learners that entered secondary schools, $50,02 \%$ reached grade 12 and only $40,10 \%$ of the learners that entered grade 8 eventually passed the matriculation examinations.

It is evident that most of the learners fail to complete their secondary schooling, as there is a sharp decline from grade 8 to grade 12 in the pass-through rates. The pass rates in secondary schools are lower relative to those of learners in primary schools. The impact of migration is not quantified in the above table.

## Section 21 Status

On 1 January 2000, WCED started a programme to convert schools to section 21 status in terms of the South African Schools Act, 1996. Their aim was to afford 100 schools section 21 status for that year and to progressively ensure that all schools achieve section 21 status over an estimated eight-year period (ending 2007). Transfer payments are made to section 21 schools, which allows the school budgetary discretion in relation to its specific needs, as well as greater inyear manoeuvrability. Section 21 schools must comply with predetermined criteria, compile quarterly reports and submit financial statements at year-end in order to retain their status. Currently 747 out of 1551 schools ( $48 \%$ ) are run as section 21 schools. The recently established Education Management and Development Centres (EMDCs) monitor the compliance by schools with section 21 requirements.

Table 7: Section 21 versus Non-Section 21 Schools

| DESIGNATION | Actual |  |  |  |  |
| :--- | :---: | :---: | ---: | ---: | ---: |
|  | $1997 / 98$ | $1998 / 99$ | $1999 / 2000$ | $\mathbf{2 0 0 0 / 0 1}$ | 2001/02 |
| Section 21 | - | - | 493 | 643 | 747 |
| Non-section 21 | - | - | 1058 | 908 | 804 |
| Total | - | - | 1551 | 1551 | 1551 |
| Section 21\% |  |  | $31,79 \%$ | $41,46 \%$ | $48,16 \%$ |

Source: WCED budget office
The allocations to schools in terms of the norms and standards for the funding of schools increased from R112 million in 2000 to R129 million in 2001 and further to R200 million in the 2002 school year.

## Other important issues

## Learner Support Materials

Changes in school curricula where the textbooks need continuous updates in order to meet requirements seriously affects Learner support materials (LSM) backlogs. The department utilises all funds saved on other items to allocate to LSM in order to reduce backlogs.

At school level, no problems were experienced with the delivery of LSM except for a few cases where books were out of print or not available. An amount of R62,218 million was spent on LSM (textbooks and stationery) in 1997/98 and this amount increased to R98,441 million in 2001/02. In 2001 an amount of R50 million was spent to redress past inequities as part of the process of eliminating learner materials backlogs (equipment and inventories) in previously disadvantaged schools. Budgeted 2002/03 funds amount to R114,857 million and increase over the MTEF to R132,146 million in 2004/05.

## Spending per learner

Spending per learner in the Western Cape used to be by far the highest of all provinces, but has fallen and WCED currently spends third most per learner. The decrease in real terms in funds available to the Western Cape province, and in effect to the WCED, as its equitable share, has resulted in this situation. Another factor affecting spending is the number of learners enrolled in a province.

## Early Childhood Development

As far as addressing Early Childhood Development (ECD) is concerned, there has been an increase in the number of subsidised Grade $R^{3}$ delivery sites in the poorest areas. As ECD teachers leave the system (retire, normal attrition, packages etc.), these posts are abolished and replaced with a subsidy that is allocated to delivery sites. The White Paper on ECD is also in the process of being taken up in a Bill and all indications are that the Act should follow before or during the 2003/04 financial year. According to the White Paper, delivery sites will receive per capita subsidies or a grant-in-aid, with WCED still exercising its discretion as to which funding mechanism to use.

## Adult Basic Education and Training

The Adult Basic Education and Training Act was enacted in 2000 and its main purpose was to improve literacy amongst adults, enabling them to improve themselves, and to assist with their possible entrance into fields of higher education. ABET centres are opened by communities themselves, and WCED only supports the running of such centres.

## Hostels

Hostels are now managed to be financially self-sustaining. WCED subsidises needy and indigent learners and pays the salaries of the hostel personnel, whilst hostels use their own income to cover running costs. Allocations to hostels decreased in real terms as a result of a more effective and revised funding system where funds are paid over for learners' boarding rather than for catering.

## Training for teachers

The phasing out of the remaining teacher education college, namely the Western Cape College, over three years began on 1 January 2001, resulting in provision still being made for this college under WCED until 2003 year end. Other teacher education colleges were incorporated into Higher Education Institutions from 1 January 2001 as a result of the National Education Minister's declaration of the phasing out of teacher training colleges. It should be noted that the continued funding of this college is for the provision of in-service training for teachers, hence a change in focus. This is a pilot project aimed at empowering teachers already in the employ of the WCED, thereby improving much needed capacity.

[^1]
## Education in the Western Cape

This section was drawn up by Professor Servaas van der Berg to provide an overview and outline some key issues affecting education performance in the Western Cape. The economic perspective on school education can be determined from the discussion.

Much of what is problematic at national level also applies at provincial level in the Western Cape, even though the Province performs better in terms of matriculation results. The Western Cape pass rate ( $82,7 \%$ ) and exemption rate (25,0\%) in 2001 was well above the national average (61,7\% and 15,1\% respectively). From 1994 to 2001 the Western Cape increased its share of national matriculation passes from 8,9 to 11,2\%, and of exemptions from 9,9 to $13,9 \%$, even though the Province's performance in this regard was not spectacular (see Fig. 1). Even more than at national level, access to education is no longer a major issue, as virtually all children of school-going age are at school, at least to about age 15 or 16 .

Figure 1: Matriculation passes and exemptions, South Africa 19882001


Nonetheless Western Cape educational performance is far from ideal. This is well illustrated by the MLA Numeracy Test carried out in 1995 at Grade 4 level in all provinces and in various African countries (Figure 2). Though the Western Cape performed best of all South African provinces and outperformed the worst (Mpumalanga - also shown in the graph) by far, its performance was only marginally better than two of the participating African countries, and worse than the other nine.

Figure 2: Western Cape performance in Grade 4 MLA numeracy test in South African and African perspective, 1995


Within the Western Cape, the effect of past patterns of privilege is still felt. Largely white schools still outperform others, and very few A-aggregates (a measure of quality) are obtained in other schools. Of the almost 6000 university exemptions in 1997, more than $60 \%$ were from mainly white schools. Thus entrance into universities perpetuates past patterns of privilege, and even more so if subject choice at school is also considered. Failure rates are highest in mainly black schools.

If socio-economic background as reflected in school fees is considered, a similar picture emerges (Figure 3). A-aggregate performances and university exemptions are very scarce in poor schools, and A-aggregates especially are concentrated in schools with fees above R1 000 per year, to which few poor children have access.

Figure 3: Matriculation results by school fee category, Western Cape 1997


The same applies with respect to performance in Mathematics, a crucial subject for further education (Figure 4). A surprisingly large proportion of pupils, even in more affluent schools, elect not to do Mathematics or take it at the Standard Grade, thus closing the door on possible further studies in the Natural Sciences, Engineering, Medicine and some other fields. Of the slightly more than 2000 pupils who passed Mathematics at the Higher Grade in 1997, $80 \%$ were from schools with school fees above R1 000, and $83 \%$ from mainly white schools. In contrast, just 20 pupils from mainly black schools passed Mathematics at the Higher Grade.

Figure 4: Mathematics results by school fee category, 1997


At national level, regression analysis has shown that matriculation pass rates of schools are influenced by the socio-economic background of pupils (measured by school fee levels), by availability of teachers (pupil-teacher ratio), by teacher quality (as reflected in their average salary levels), and by the racial composition of schools. Together these factors statistically explain about $56 \%$ of variation in pass rates amongst schools. ${ }^{4}$ Racial composition may reflect the continued effect of the past on school performance. Thus mainly black schools still appear to be functioning comparatively poorly even considering their lower socio-economic background and fewer inputs of teacher resources.

[^2]Even after allowing for the effect of other influences on school results, the Western Cape outperforms equivalent schools nationally by 8\%. Analysis shows that this results mainly from coloured schools in the Western Cape outperforming their national counterparts by $10 \%$. White schools also do better than equivalent schools nationally, but statistically black schools did not perform statistically significantly better than nationally. Socio-economic status has a somewhat smaller impact on performances in the Western Cape than nationally, but more and better qualified teachers seem to have a greater positive effect in the Western Cape.

When analysing the performance of Western Cape schools only, it is unsurprising that the coefficient of determination $\left(R^{2}\right)$ is much higher (about 0.67) given the lesser extent of heterogeneity within the Western Cape. This implies that about two-thirds of the variation in performance between schools in the Province can be explained by variables reflecting socio-economic status, teacher resources and racial composition. But it is noticeable that the pupil-teacher ratio is not a statistically significant predictor of matric performance, keeping all other factors constant.

For the Western Cape as well as nationally, poor educational output stems mainly from inadequate performance in a large part of the school system that has historically been neglected. However, within the same category of schools, many perform quite well. Figure 5 shows 37 schools which in 1997 were all poor (school fees below R100); all were historically disadvantaged, with similar resources and past neglect. Yet performance varied dramatically. Nine of these schools even performed better than the provincial average (shown by the top horizontal line; the lower line shows the average provincial pass rate for such poor schools). Given that some schools in this category are able to perform so well, the performance of many of the others is a source of concern.

Figure 5: Matriculation pass rates amongst poor schools (school fees below R100) arranged from worst to best performance, Western Cape 1997


## Growth and volatility in enrolments

Educational planning is complicated by volatility in pupil numbers at school level, particularly in metropolitan areas where close proximity of schools opens up possibilities of transfers between schools. Overall enrolments increased by just over 1100 in 2001 (from 875299 to 876 435), after a decline of almost 19000 in the previous year (from 894067 ). But this decline was a partly artificial situation resulting from the increase in the school-going age working its way through the system (Figure 6). In all educational districts, aggregate enrolments hardly changed.

Figure 6: Enrolments by grade, 1999, 2000 and 2001


The overall problem is not so much growth in overall enrolments as volatility in individual schools. Two perceptions dominate with regard to volatility:

- That there are large inflows of pupils from the Eastern Cape
- That enrolment fluctuations are a response to schools' reputations (good matriculation results reputedly induce transfers from less successful schools).

Table 8 distinguishes schools by geography (EMDCs) and by dominant home language. Immigration from other provinces (18 000 pupils) made up $2,1 \%$ of all pupils in 2000, concentrated in mainly Xhosa language schools, where $6,6 \%$ of pupils were new arrivals from other provinces. Geographically, this immigration was concentrated in Metropolitan Central and Metropolitan East EMDCs. Figure 7 shows exceedingly high transfers from other provinces in secondary grades, well above $10 \%$ in Grades 8 to 10, which accords with the view of education-driven immigration from the Eastern Cape.

Table 8: Transfers from other provinces as percentage of overall enrolments by EMDC and dominant home language of schools, 2000

|  | Dominant home language |  |  |  | Total |
| :--- | :---: | :---: | ---: | ---: | :---: |
|  | Afrikaans | English | Xhosa | None |  |
| Metropolitan Central | $0,5 \%$ | $2,5 \%$ | $10,5 \%$ | $1,8 \%$ | $3,2 \%$ |
| Metropolitan East | $0,9 \%$ | $1,1 \%$ | $7,3 \%$ | $1,8 \%$ | $3,9 \%$ |
| Metropolitan North | $0,8 \%$ | $1,8 \%$ | $10,7 \%$ | $1,4 \%$ | $1,4 \%$ |
| Metropolitan South | $0,7 \%$ | $0,8 \%$ | $4,6 \%$ | $1,2 \%$ | $1,9 \%$ |
| Overberg | $0,5 \%$ |  | $5,1 \%$ |  | $1,0 \%$ |
| Southern Cape/Karoo | $1,1 \%$ | $3,9 \%$ | $5,5 \%$ | $3,6 \%$ | $1,8 \%$ |
| West Coast/Winelands | $0,7 \%$ | $2,5 \%$ | $7,4 \%$ | $2,5 \%$ | $1,3 \%$ |
| Total | $\mathbf{0 , 8} \%$ | $\mathbf{1 , 7 \%}$ | $\mathbf{6 , 6 \%}$ | $\mathbf{1 , 6 \%}$ | $\mathbf{2 , 1 \%}$ |

Figure 7: Transfers from other provinces as proportion of enrolment in each grade, 2000


In contrast, mobility between schools was high throughout the Province, with all EMDCs recording relatively large percentages ( $8-11 \%$ ) of pupils who transferred from other WCED schools at the beginning of the year (Table 9). The aggregate figure of about 85000 transfers between schools was affected by transfers in Grade 8, the entry grade for most secondary schools; not all schools treated such transfers consistently. Figure 8 shows a fairly constant pattern of intraprovincial transfers across grades (apart from grades 1 and 8), with relatively fewer transfers in the last two school years. The pattern for dominantly Xhosa schools is virtually indistinguishable from that for the Province as a whole up to Grade 9, but considerably above the norm in secondary schools. But this level of transfers
is nevertheless too low to support the view that perceived quality considerations as deduced from matriculation results have a strong influence on school choice even in Grades 9 to 12, transfers between schools in mainly Xhosa schools are under $10 \%$ per annum.

Table 9: Transfers from within Province as percentage of overall enrolments, 2000

|  | Dominant language |  |  |  | Total |
| :--- | :---: | ---: | ---: | ---: | ---: |
|  | Afrikaans | English | Xhosa | None |  |
| Metropolitan Central | $8,8 \%$ | $9,1 \%$ | $16,4 \%$ | $6,3 \%$ | $10,9 \%$ |
| Metropolitan East | $11,3 \%$ | $2,6 \%$ | $10,2 \%$ | $5,2 \%$ | $10,1 \%$ |
| Metropolitan North | $9,5 \%$ | $10,4 \%$ | $14,4 \%$ | $9,5 \%$ | $9,9 \%$ |
| Metropolitan South | $13,7 \%$ | $9,9 \%$ | $7,4 \%$ | $10,0 \%$ | $10,4 \%$ |
| Overberg | $9,9 \%$ |  | $9,3 \%$ |  | $9,8 \%$ |
| Southern Cape/Karoo | $9,0 \%$ | $1,9 \%$ | $6,1 \%$ | $6,9 \%$ | $8,4 \%$ |
| West Coast/Winelands | $8,2 \%$ | $1,2 \%$ | $8,7 \%$ | $0,0 \%$ | $8,0 \%$ |
| Total | $\mathbf{9 , 8 \%}$ | $\mathbf{9 , 1 \%}$ | $\mathbf{9 , 5 \%}$ | $\mathbf{1 0 , 6 \%}$ | $\mathbf{9 , 7 \%}$ |

Fig. 8: Transfers from within Province as percentage of enrolment in each grade, 2000


Volatility for the year 2000 can thus be summarised as follows:
New pupils in schools:
New pupils from other provinces 18283
Total transfers within Province
85141
Total transfers to schools:
103424
(11.8\% of enrolments)

There may also be substantial emigration from the Western Cape, as the WCED experienced no growth in overall enrolments in Grades 1-12 despite an inflow of just over 18000 pupils in these two years. Thus astonishing aggregate stability is combined with surprising volatility of enrolments in individual schools, particularly in black townships of the Cape Metropolitan Area. In 2001, 202 out of 1472 schools lost more than 35 pupils (the average number required for one teacher), whilst 169 schools gained as many. Thus one out of four schools either gained or lost more than 35 pupils in a single year. In 2000, losses of this magnitude were even more common (360) and gains fewer (129) as a result of stricter application of the age restrictions. Altogether 38 schools which had lost more than 35 pupils in 2000 gained more than that the next year, whilst 22 which had gained 35 or more in 2000 lost more in 2001 - there is seemingly no relation between enrolment changes in one year and the next. ${ }^{5}$ This places high demands on the educational system to adjust. The average gain or loss (i.e. absolute value) for all schools in 2001 was about 36, i.e. the average school's enrolment fluctuated by the equivalent of more than the number required to change its staff complement by at least one teacher.

## Conclusion

The Department received less funds in real terms in 2002/03 than they had spent in 2001/02.

Furthermore, the allocations drop slightly in real terms over the medium term.
Personnel expenditure constitutes about $87 \%$ of total expenditure (2001/02). Thus, calculated risks related to the management of personnel expenditure need to be carefully monitored to prevent budget overruns, as maneuvrability within non-personnel expenditure is limited.

Given the important role that education plays in a developing country, the Department's allocation over the medium term should be augmented to at least remain constant in real terms on condition that the Department provide clear benchmarks/indicators on how the quality of education will be improved, which they can be measured against over time. Moreover, it must be ensured that an appropriate proportion of the increase in the vertical split finds its way to provincial education budgets.

The challenge to the Department is to attain efficiency gains in the education system.

A further major challenge is to improve the "pass-through rate of pupils" and the quality of education as a whole over time.

[^3]
[^0]:    1 The ratio is a national target and reflects spending on personnel and non-personnel expenditure as a proportion of total budget.

[^1]:    ${ }^{3}$ Reception

[^2]:    4 See Van der Berg, Servaas. 2002. Education, Poverty and Inequality in South Africa. Paper for the Conference of the Centre for the Study of African Economies. Oxford, March; Van der Berg, Servaas \& Burger, Ronelle. 2002. Education and Socio-Economic Differentials in South Africa. Mimeo. Stellenbosch: Dept. of Economics, University of Stellenbosch.

[^3]:    5 There is virtually no correlation between changes in enrolment in 2000 and in 2001 ( $r=.07$ ), and for individual grades (apart from the lowest grades affected by the changing school age) there is a weak negative correlation (evidence that increases in one year were usually followed by decreases in the next).

