TWENTY YEAR REVIEW

SOUTH AFRICA

1994 - 2014

BACKGROUND PAPER:

EDUCATION

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Acronyms and Abbreviations

ABET	Adult Basic Education and Training
ANA	Annual National Assessments
ASIDI	Accelerated Schools Infrastructure Delivery Initiative
CAPS	National Curriculum and Assessment Policy Statement
DBE	Department of Basic Education
CEO	Chief executive officer
DHET	Department of Higher Education and Training
DoE	Department of Education
DPME	Department of Monitoring and Evaluation
ECD	Early childhood development
FET	Further education and training
GDP	Gross domestic product
GETC	General Education and Training Certificate
GPI	Gender parity index
HDI	Historically disadvantaged institution
HEI	Higher education institution
HSRC	Human Sciences Research Council
Indlela	Institute for National Development of Learnerships Employment Skills and Labour Assessments
JIPSA	Joint Initiative for Priority Skills Acquisition
MDG	Millennium Development Goal
NC(V)	National Certificate (Vocational)
NEET	Not in employment, education or training
NQF	National Qualifications Framework
NSC	National Senior Certificate
NSDS II	National Skills Development Strategy II
NSF	National Skills Fund
NSFAS	National Student Financial Aid Scheme
NSNP	National School Nutritional Programme
PALC	Public Adult Learning Centre
PED	Provincial education department
PoA	Programme of action
SAIRR	South African Institute of Race Relations
SAQA	South African Qualifications Authority
SASA	South African Schools Act
SET	Science, engineering and technology
SETA	Sector Education and Training Authority
SGB	School governing body
Stats SA	Statistics South Africa
TIMSS	Trends in International Mathematics and Science Study

Policy Summary

The following is a headline view of selected key policies that have impacted on education and skills development since 1994:

1995: The White Paper on Education and Training enabled the Minister of Education, working with the provinces, to set the political agenda and determine the national norms and standards for education planning, provision, governance, monitoring and evaluation.

1996: The South African Schools Act (SASA) provided for a uniform system for the organisation, governance and funding of schools. It sought to ensure that all learners have the right of access to quality education without discrimination, and it made schooling compulsory for all children from the year they turn seven to the year in which they turn 15 (or the end of Grade 9).

2006: The Further Education and Training Colleges Act (Act 16 of 2006) regulated further education and training, which was defined as all learning and training programmes leading to qualifications at levels 2 to 4 of the National Qualifications Framework (NQF) or such (other) levels determined by the South African Qualifications Authority (SAQA)

2006: The aim of the No-fee Schools Policy was to bring financial relief to the parents of school-going children who cannot afford to pay school fees (these children would otherwise have been denied access to schools). The policy is currently being implemented in school quintiles 1, 2 and 3.

2009: The Human Resource Development Strategy 2010–2030 sought to dramatically improve learning attainment at all levels of the schooling system.
2009: Education and skills were identified as one of the ten key priorities in government's strategic agenda for the period 2009–2014.

2012: The Green Paper for Post-school Education and Training identified the problem of poor Mathematics and Science results as a barrier to post-schooling education. Working with the universities, further education and training (FET) colleges could offer bridging or foundational programmes to students who wish to enter university, but who require upgrading in particular subjects, especially Mathematics, Science and languages.

Executive Summary

Since 1994, government has implemented major policy reforms to redress past inequalities in education, transform the education system and respond to the need to increase the skills and life opportunities of all South Africans. Nineteen different education departments were unified into one education system. Government introduced policies to deracialise schools, and developed a new curriculum. It further introduced a new funding model to replace the race-based and inequitable funding model of the apartheid era.

The education system inherited by the democratic government in 1994
When South Africa became a democracy in 1994, the education system was racially differentiated, with fragmented departments organised along racial lines. These departments were treated unequally and had unequal outputs. Funding was disproportionately allocated according to race, with the major share dedicated to the education of the white minority. The system from basic education through to higher education and training was generally unequal in terms of access, infrastructure, internal efficiency, input and output.

In 1994, only 54 percent of the African teachers were qualified, compared to 99 percent of white teachers, 93 percent of Indian and 71 percent of coloured teachers (Department of Education, 2004). In the higher education sector, 80 percent of the professional staff was white, in comparison with 12 percent black, 4 percent coloured and 4 percent Indian. Women were generally under-represented, and only constituted 34 percent of the staff corps (Organisation for Economic Cooperation and Development, 2008).

At school level, infrastructure backlogs were immense, with 59 percent of schools without electricity, 34 percent without water on site, 12 percent without toilets on site, 61 percent without telephones, and 82 percent without libraries. The further education and training (FET) sector and historically black universities and technikons also lacked adequate infrastructure. The FET colleges lacked infrastructure, governance and management structures, administrative and organisational systems, quality training of trainers, linkages with industry, quality assurance and management information systems.

Progress on policy level
One major milestone since 1994 has been the unification of the 19 different departments of education into one department of basic education, with substructures. The unification of education was accompanied by policy reform to deracialise schools, as well as the development of a new curriculum and a new funding basis that reflects the principles of the new government. In the post-school arena, the focus was on the consolidation of institutions, and increasing access.

Between 2003 and 2005, the original 36 universities and technikons were merged into 23 institutions of higher learning.

By 2000, systems were set in place for the implementation of the National Skills Development Strategy (NSDS), which involved the introduction of sector education and training authorities (SETAs), and doing away with the industry training boards. The introduction of learning programmes, such as learnerships, was intended to close the gap between theoretical learning and workplace exposure.

Progress on basic education level

Since 1994, the education system has expanded to such an extent that the number of Africans aged 20 and older who had completed Grade 9 increased from only 48 percent in 1994 to 64 percent by 2011. Similarly, Africans in the same age group who had completed Grade 12 increased from 23 percent in 1994 to 64 percent in 2011.

Government implemented a number of interventions to facilitate access to education, especially for the poor. The introduction of no-fee schools has alleviated the burden of paying school fees on poor households. In 2010, about 70 percent of learners (over 8 million) in 81 percent of public schools (close to 20 000) benefited from the no-fee policy. Furthermore, the household data of Statistics South Africa (Stats SA) confirms that virtually all learners from poor households enjoy the benefits of a government-funded school lunch. This project makes it possible to provide nutritious meals to a total of 8 756 693 learners in 20 905 primary and secondary schools on every school day.

Two large government interventions in 2011 – aimed at increasing access to quality written material and assisting learners and teachers to understand and cover the curriculum – were the introduction of workbooks and the first full-scale implementation of the Annual National Assessments (ANA) Programme. By 2013, around 114 million full-colour national workbooks had been distributed to schools since the beginning of 2011. ANA represents government's attempt to make the entire system more accountable. The ANA results show that learners, particularly in poorer communities, perform far below the level set by the official curriculum.

Since 2009, Grade 12 pass rates have been increasing from 61 percent in 2009 to 74 percent in 2012. Average passes per year during the 2000–2002 period were around 288 000, against 374 000 in the 2010–2012 period. In the period between 2010 and 2012, the number of learners who obtained sufficient marks for university studies at bachelor's level was around 128 000 per year on average, compared to a figure of 70 000 for the period 2000–2002. In 2012, the figure was 136 047, constituting an increase of 15 280 from the 2011 figure (120 767), the highest it has ever been.

The results of the Trends in International Mathematics and Science Study (TIMSS) for 2011 indicate large improvements in the Mathematics and Science results of Grade 9 learners between 2002 and 2011. The increases over the two cycles of TIMSS in South Africa mean that learner performance has improved by one and a half grade levels. However, South Africa still achieves a low average in Mathematics and Science, which indicates that South African learners are performing far below the level expected for Grade 9 learners.

Progress in higher education and training

University enrolment has almost doubled in volume, increasing from 495 356 at universities, technikons and teacher training colleges in 1994 to 938 201 at public universities and universities of technology in 2011. Another statistic paints the story from a different perspective: in 1995, only 9 percent of Africans of university-going age were enrolled in universities, compared to 61 percent of the white population. In 2006, the number for Africans increased to 12 percent of the population and for whites marginally decreased to 59 percent of the population.

By 2011, women made up 54 percent of all students enrolled in contact university programmes. With regard to population groups, participation rates are still skewed in favour of white and Indian students. Only 14 percent of African and 14 percent of coloured students of university-going age are enrolled in higher education institutions (HEIs), as opposed to 57 percent white and 58 percent Indian students. Black (of both genders) and female students are under-represented in science, engineering and technology (SET), as well as in business and commerce programmes. Postgraduate studies are dominated by white males.

Government made huge strides in increasing access to higher education. As many as 991 759 student beneficiaries received R25 billion in National Student Financial Aid Scheme (NSFAS) loans and bursaries between 1991 and 2011.

Enrolments at FET colleges recently surged from 271 900 in 2000 to just more than 400 000 in 2011. Bursaries to FET college students increased from R100 million in 2007 to R1.7 billion in 2012, benefiting some 237 908 students between 2009 and 2011.

National Certificate (Vocational) NC(V) success rates improved from a rate of 10 percent in 2009 for NC(V) level 1 to 43 percent in 2012. While opportunities for education and training have opened up, success to final graduation has predictably needed time to catch up. Success in artisanal training has also been a challenge. Between 2000 and 2006, 3 430 artisans successfully completed the trade test, while only 2 303 qualifications were recorded by the Institute for National Development of Learnerships, Employment Skills and Labour Assessments (Indlela) between 2005 and 2009/10 (the period of the NSDS II). The recent push to increase these intermediate trade-related skills is paying off. Between 2007 and 2008, 6 030

artisans were qualified and funded by the various SETAs. That number jumped to 11 778 qualifications between 2010 and 2011.

It is further worth mentioning that by 2009, 85 percent of unemployed people were trained on learnerships, and out of that, 115 percent completed the training. Out of this total, 81 percent were Africans, 53 percent were female and 3 percent were people with disabilities (Department of Labour, 2009).

Perhaps the biggest disappointment in terms of access has been Adult Basic Education and Training (ABET). Annual enrolment at public adult learning centres (PALCs) has averaged just below 300 000 annually between 1999 and 2011. However, the Kha Ri Gude literacy programme appears to have been a success, with good participation. Whereas Census 1996 recorded 19 percent of the population aged 20 years and older as having no education, this had dropped to 9 percent in the 2011 Census.

Remaining challenges

Although school performance measured in terms of ANA, TIMSS, and the National Senior Certificate (NSC) is still very low, considering other countries at similar levels of development, where teachers are less qualified and face higher pupil: teacher ratios. Furthermore, considering how much the country spends as a percentage of gross domestic product (GDP) compared to other countries, South African schools are performing below their potential. Although the public education system is administratively unified, it still operates as two systems that are characterised by unequal performance and resource endowment. The two systems are not necessarily classified by race, but by the socio-economic status of the parents, wealth, geographic location and language, with the majority of the learners trapped in the weak part of the system that is reproducing apartheid performance.

More interventions are still needed to improve learner performance. One of these is teacher development, which, judging by teacher content knowledge testing, remains very weak. Similarly, there is a need to increase the professionalisation of teachers, along with effective support from the provinces. School management and administration, effective districts and infrastructure have to be strengthened. There is a need to continue improving the credibility of ANA, effectively using it for holding schools accountable for performance. Parents should also be able to use it to hold schools accountable. Along with library access, it is important that learner access to textbooks is increased to support learning in the classroom.

The funding of universities needs to incentivise graduation rates, while still promoting research. Concerted efforts are needed to increase the qualifications of lecturers, replenish the stock of lecturers, and encourage more female and African students to become lecturers, especially in the science fields. For some time, universities will have to provide study programmes to assist underprepared learners entering higher

education. Funding should incentivise those universities that successfully carry out this work.

The quality of FET colleges needs to be strengthened even more if they are to become the first choice for training. The administration, lecturer quality, throughput rates and placement of students of these institutions have to be improved further. At policy level, there is a need to ensure articulation between FET college qualifications and universities. To change the perception that FET qualifications are of a low quality, strong working relations should be fostered between industry and colleges, including the SETAs. Finally, the role of private FET colleges needs to be clarified in meeting the country's skills needs.

The solidification of work experience opportunities for graduates from both FET colleges and universities should be prioritised in order to increase the absorption of learners by the labour market.

Review

1. Introduction and background

Since 1994, government has implemented major policy reforms to redress past inequalities in education, transform the education system and respond to the need to increase the skills and life chances of all South Africans.

Overall, education budgets increased to above 5 percent of gross domestic product (GDP) (Department of Performance Monitoring and Evaluation, 2012), equity in schooling funding improved and public spending per learner increased to approximately R11 000 per year in 2011. However, inequalities remain in terms of resources among public schools as a result of the private household funding of schools.

Early childhood education is critical for improving the results of learners as they progress through the education system. Government has invested in terms of funding and the introduction of Grade R to better prepare learners for primary school.

Gross primary and secondary school enrolment have remained steady at over 85 percent. Overall, South Africa has come closer to gender parity in secondary school enrolment and is on track to meeting the Millennium Development Goal (MDG) of achieving universal primary education by 2015.

Government has put in place a number of interventions to facilitate access to basic education for disadvantaged learners, such as the No-fee Policy – according to which poor households do not pay school fees – and a daily government-funded school lunch for all poor learners.

One of the inheritances of apartheid is the huge backlog in public school infrastructure. While great progress has been made by programmes such as the Accelerated Schools Infrastructure Delivery Initiative, backlogs still remain.

The introduction of the outcomes system in 2009 resulted in a greater emphasis on improving educational outcomes through various interventions. The first of these included the distribution of 114 million workbooks to schools between 2011 and 2013 and the Annual National Assessments (ANA) Programme. This programme enables government to obtain an objective assessment of the health of the basic education system.

The poor ANA results can partly be attributed to inadequate teacher knowledge and teacher competency levels. To strengthen the quality of education, the Funza Lushaka bursary scheme was introduced to attract new learners to study towards teaching qualifications. Furthermore, the Curriculum and Assessment Policy Statement (CAPS) was introduced in 2011. This system spells out what teachers

should teach and assess, how lesson plans should be prepared and how teaching should take place.
The 2011, Trends in International Mathematics and Science Study (TIMSS) points to improvements in the performance of Grade 9 learners between 2002 and 2011. However, South Africa still has a low average in Mathematics and Science performance, below the expected level for Grade 9 learners.

Grade 12 pass rates increased from 61 percent in 2009 to 74 percent in 2012. The average number of learners who obtained sufficient marks for university entry increased to 120 767 in 2011 from 70 000 for the period 2000–2002. The 2011 figure improved to 137 251 in 2012 (Reddy et al., 2013). It is worrying that the number of Grade 12 learners to pass Mathematics with a mark above 50 percent remains low. This is compounded by the fact that fewer learners opt for Mathematics over Mathematics Literacy – a choice that restricts life opportunities and access to programmes such as engineering.

In the post-school arena, the focus was on the consolidation of institutions, and increasing access. Between 2003 and 2005, the original 36 universities and technikons were merged into 23 higher education institutions.

University enrolment has almost doubled over the last 20 years, increasing from 495 356 (universities, technikons and teachers' training colleges) in 1994 to 938 201 (public universities and universities of technology) in 2011. Access to education was increased by a large extent by the awarding of bursaries and loans by the National Student Financial Aid Scheme (NSFAS) to students at universities and further education and training (FET) colleges.

By 2011, women made up 54 percent of all students enrolled in contact university programmes, and more black students than ever (81%) enrolled in higher education institutions. However, participation rates are still skewed in favour of white and Indian students – 14 percent of black and 14 percent of coloured people of university-going age are enrolled in higher education institutions, compared to 57 percent white and 58 percent Indian. Furthermore, African and female students are under-represented in science, engineering, technology, business and commerce programmes – the critical areas needed in the economy.

The quality of FET colleges has to be strengthened by improving administration, lecturer quality, throughput rates and the placement of students for work experience. Although access to learnerships has increased, it is still a challenge to place learners in experiential learning and sustainable employment. The link between FET qualifications and the demand for skills in the workplace has to be addressed urgently and partnerships between colleges and employers should be strengthened to increase opportunities in the ensuing years.

2. The journey since 1994

2.1 Historical endowment in 1994

Democratic South Africa inherited a racially differentiated education system, with 19 different departments of education and a post-school environment that was organised along racial lines. Not only were the departments different in terms of their administration, but they were treated unequally and had unequal outputs. The education budget was disproportionately allocated according to race, with the major share dedicated to the education of the white minority. Consequently, the white minority enjoyed better education resources, while the African majority's education system was under-resourced with limited access to quality education. In short, in 1994 the democratic government inherited an unequal education and training system in terms of access, infrastructure, internal efficiency, input and output.

The post-school education and training sector was characterised by inequitable access based on race. Training colleges had inadequate infrastructure, with weak governance and management structures, and weak administrative and organisational systems. They lacked quality trainers, had limited linkages with industry, and their quality assurance and management information systems were weak (Department of Education, 1997: 37–38).

Skills training was also inequitable and structured along racial lines. In addition, the provision of vocational education and training was inadequate. Only 1 percent of secondary school students was enrolled in technical or vocational institutions by the late 1990s. Although enrolment at technical colleges increased by 70 percent between 1987 and 1994 (South African Institute of Race Relations, 1995: 217), apprenticeship contracts were dwindling – dropping by 42 percent between 1984 and 1993. Most of the artisan training (80 percent) had previously been done by parastatals, and they treated this as a core function. However, the commercialisation of state-owned enterprises with a greater focus on profit-making in effect compromised training, with many of the training centres being run down.

At the same time, non-formal workplace skills education was underdeveloped and discredited as being second rate. Adult basic education and training (ABET) was equally inadequate, and created opportunities for donor-funded initiatives for non-formal adult education programmes linked to transformative political agendas to be established in communities and universities.

At the official demise of apartheid, 86 percent of those with no education were African. About 1.7 million people had some form of post-matriculation education, 56 percent of which were white, 36 percent African, 4 percent coloured and 3 percent Indian (South African Institute of Race Relations, 1996: 97). The racial phenomenon was also compounded by the uneven shape of education and training provision, which tended to take the form of an inverted pyramid with the universities

having higher numbers of enrolments, compared to other intermediate levels of provisioning.

Funding

It is estimated that at the height of apartheid, government spent nine times more on white learners than on worse-off African learners in homelands (Sayed & Kanjee, 2013). Consequently, the education of Africans was characterised by low quality and limited resources evident in high teacher: learner ratios, inadequate infrastructure and ill-prepared teachers. The apartheid-skewed funding meant schools teaching black learners had limited ability to spend on school infrastructure and the maintenance of their existing buildings, science laboratories or Mathematics and Science equipment, and libraries.

Human resources

The inherited backlogs also pertain to teachers. Larger teacher: learner ratios in the education of African learners were accompanied by low teacher qualifications, with only 54 percent of the African teachers being qualified. In comparison, 99 percent of white teachers, 93 percent of Indian and 71 percent of coloured teachers were qualified in 1994 (Department of Education, 2004).

Approximately 45 000 staff members were employed by the higher education sector, of which only 17 000 were professional. The majority of the professional staff was white (80 percent), and the remainder comprised 12 percent black, 4 percent coloured and 4 percent Indian people. Women were generally under-represented and only constituted 34 percent of the staff complement (Organisation for Economic Cooperation and Development, 2008).

While the post-schooling institutions were required to supply relevant skills to the economy, the economic growth was not sufficiently robust to create jobs, resulting in the so-called phenomenon of jobless growth. Although the GDP grew by 2.9 percent between 1994 and 2000, unemployment increased by 124.8 percent in the same period (South African Institute of Race Relations, 2012: 216). In effect, the disjuncture between increasing levels of education and rising unemployment fed into the argument that the kind of skills being produced was not of the right kind or level to support economic development. It can be said that unequal education resulted in unequal employment, which, coupled with apartheid policies, led to unequal performance in the labour market.

Whether or not the economy was growing fast enough to absorb new entrants, the dominant argument was that the root of the problem was a general skills crisis.

Infrastructure

At school level, infrastructure backlogs were immense, with 59 percent of schools without electricity, 34 percent without water on site, 12 percent without toilets on site, 61 percent without telephones and 82 percent without libraries.

The above challenges were compounded by the fact that around 57 percent of schools had classrooms with 45 learners or more (Government Notice 515, in Infrastructure Public Expenditure Analysis). This analysis excludes information on inappropriate structures and mud schools. Table 1 provides a summary of the status of school infrastructure.

Table 1: School infrastructure status

	1996	2000	2006
Total ordinary schools surveyed	26.73	27.15	25.10
Schools without electricity	59.2%	44.6%	17.1%
Schools without water on site	34.1%	28.8%	12.6%
Schools without toilets on site	12.2%	9.2%	6.1%
Schools without telephones	60.6%	35.5%	9.1%
Schools without computers for teaching and learning	68.6%	67.0%	68.0%
Schools without libraries	82.1%	81.2%	79.6%
Schools without laboratories	75.6%	75.9%	60.5%
Classrooms with 45 or more learners	56.6%	42.2%	24.3%

Source: Government Notice 515, National Policy for an Equitable Provision of an Enabling School Physical learning and Teaching Environment.

The backlog in resources, equipment and staffing presented particular challenges for the smooth running of the historically black universities and technikons. The mergers of higher education institutions (HEIs) alleviated the constraints, but at some institutions, management and governance remained weak and there have been cases of corruption.

Education attainment

Although education attainment had been increasing, the education of black South Africans was lagging behind. The poor performance of the system has persisted, with the performance of historically black schools being lower than the historically white schools (Van der Berg et al., 2011).

While the gross enrolment rate at primary schools was 122 percent in 1995, at secondary school level, it stood at 51 percent. The over-100 percent gross enrolment rate at primary schools pointed to the inefficiency of the system, with many under-age learners enrolled in primary schools. Because of limited pre-school facilities, parents were using schools as day care centres by enrolling under-age learners, especially in Grade 1.

The low gross enrolment rate at high schools indicated a different inefficiency: the inability of the system to retain learners. This was also shown by the fact that fewer learners reached matric. By 1994, the number of African learners sitting for matric was 410 784, with only 11 percent of them achieving university entrance qualifications – an indication of the quality challenges of the education system. In 1996, only 9 percent of the African and 10 percent of the coloured university-aged

population enrolled at universities, compared to 61 percent whites, 35 percent Indians.

In 1990, only a quarter of African matriculants took Mathematics, compared to 64 percent of white and 70 percent of Indian students (see Table 2). Apart from the fact that fewer African learners took Mathematics as a matric subject, it was worrying that only 15 percent passed it at either standard or higher grade (Reddy et al., 2013).

Table 2: Participation and performance in Mathematics, by racial groups, in 1990

	Participation rate in matriculation Mathematics	Pass rate in Mathematics	Percentage higher grade Mathematics participation
White	64	97	60
Indian	70	76	74
Coloured	45	74	38
African	24	15	65

Source: FRD Indicators, 1993

The withholding of Mathematics from African people in South Africa by the apartheid government was a tool designed to ensure racially differentiated access to Mathematics and Science within the framework of Bantu education, which was designed to under develop and exclude Black people. At university level, very few black students were graduating in mathematics and engineering fields. In 1991, only 2 percent of blacks graduated in engineering, compared to 92 percent of white students (see Table 3).

Table 3: Awarding of university degrees in selected fields, by race (percentage), in 1991

Race	Engineering	Mathematics	Computer science and data processes	Architecture and environmental design
White	91.9	74.8	87.9	95.5
Indian	4.9	7.4	6.8	2.2
Coloured	1.0	5.9	3.1	1.0
African	2.1	11.9	2.3	1.2

Source: Organisation for Economic Cooperation and Development, 2008

Among young adults (25- to 34-year-olds), approximately 35 percent had Grade 8–11 education as the highest qualification in 1995, and 11 percent had some form of tertiary education. This means that many young adults could not be trained to develop the skills needed by the economy that was rapidly becoming knowledge-intensive. Older adults (defined here as 35- to 64-year-olds) showed similar trends. In 1995, nearly 17 percent of older adults had no education at all, and only 9 percent had a tertiary education. Disaggregating this by race shows that, compared to other races, more Africans were without any form of education. Furthermore, African females often had no education.

In the 1990s, the FET college sector was neglected. The National Committee on Further Education indicated that colleges lacked infrastructure, had weak governance and management structures, as well as weak administrative and organisational systems. They lacked quality trainers, had limited linkages with industry, and their quality assurance and management information systems were weak (Department of Education, 1997: 37–38).

2.2 Dynamics of the transition

The first phase of change in the education and training system, from 1994 to 1999, was concerned with the reconstruction of the education system. Government was in the process of reinventing its organisational, structural and administrative protocols, structures, capacities and systems (Department of Education, 2001). Government thus developed many policies aimed at reorganising the education system.

The unification of the education departments was accompanied by policy reform to deracialise schools and develop a new curriculum to replace the apartheid curriculum. A new funding system replaced race as a base for allocating resources. New efforts aimed at more equitable access to quality schooling included shifts in the allocation of education expenditure and infrastructure investments – notably the construction and repair of school buildings – as well as pro-poor funding. Government's commitment to this has been outlined in a number of Government Gazettes and policy documents and programmes. These policy changes were necessary to lay the foundation for breaking away from the apartheid education policy.

In the post-school arena, the focus was on the consolidation of institutions, and on increasing access. This included the closure or absorption of 120 colleges of education, the quality of which varied (Organisation for Economic Cooperation and Development, 2008), into universities and technikons. However, the closure of colleges of education had the unintended consequence of a shortage of Foundation Phase school teachers. Between 2003 and 2005, the original 36 universities and technikons were merged into 23 institutions of higher learning.

Funding

Government's commitment to deal with past inequalities was revealed in increases in education expenditure consuming 6.4 percent of GDP in 1994, reaching a high of 6.8 percent in 1998, and remaining above 5 percent of GDP (Department of Basic Education, 2012a). This overall statistic compares well with developing and developed countries, showing that government's commitment to education is a priority. However, South Africa is not investing in higher education at the same level as these other countries.

A per-capita analysis shows that expenditure on black and white children has been moving towards convergence since 1994, but there are still disparities (Department

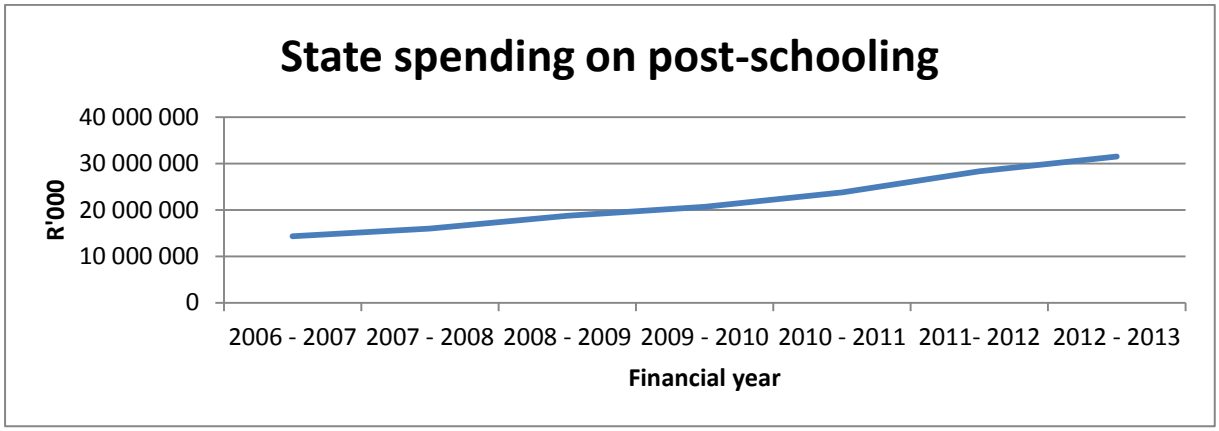
of Basic Education, 2012a). The disparities exist as an outcome of policy allowing private resources into the public education system that was designed to encourage better-off parents to remain in the public education system.

To partly address historical unequal resource allocation, government introduced the National Norms and Standards for School Funding in January 2000. Its aim was to move non-personnel expenditure – both capital and current – towards schools in poor communities using poverty quintiles (Department of Basic Education, 2012a). Although the Funding Norms and Standards are pro-poor in design, their impact had been limited due to the small amounts relative to overall school funding. The quintile system marked a major break from school funding based on race to funding based on levels of poverty. Although the quintile system further strengthened a pro-poor funding mechanism, the funding has not resulted in an equalisation of resources among all the schools. Resource quality in schools still reflects apartheid privileges, partly because the cost of equalising resources is huge.

To release private funding into public education, the state chose to allow families to supplement government resources through school fees, the Equitable Share Formula, and the National Norms and Standards for School Funding (Department of Education, 1998), was subsequently amended to introduce the No-fee Schools Policy (Sayed & Motala, 2012). As a result of the challenges of implementing the fee exemption policy and a failure to reduce economic barriers to education, it became necessary for the National Norms and Standards for School Funding to be amended in 2007, introducing the no-fee schools. In 2010, about 70 percent of learners (over 8 million) in 81 percent of public schools (close to 20 000) were benefiting from the No-fee Policy.

The private funding of education has released more funding into the education system. Household education spending, together with government spending on education, was nearly R177 billion (in 2012 rand) in 2008. This was equal to 7.8 percent of GDP, with government spending being 6.1 percent of GDP and household spending 1.7 percent. Both household and government spending on education had grown in real terms, but government spending had increased significantly, growing by 35 percent over the period, against the 15 percent growth in private spending in 2010/11 (Department of Basic Education, 2012a). Although this expenditure had released more funding into the system, it has also played a role in maintaining an unequal public education system.

Figure 1: Post-school funding



Source: Department of Higher Education and Training, 2013

Initially, fiscal constraints slowed down the implementation ambitions of the early policy promises. *Education White Paper 2: A Programme for the Transformation of Higher Education* (1997), for example, acknowledges that while sustained financial investment is necessary to grow participation in higher education and to redress inequities, "... these costs will have to be met from a strategic mix of funding sources. These will include systemic and institutional efficiencies, a greater volume of private contributions, and increased, redistributed and tightly targeted public sector outlays" (Department of Education, 1997: 21, 46). Escalating tuition fees in the immediate post-1994 period were partly a result of these competing imperatives, and help explain the drop in student enrolments from 605 000 in 1996 to 564 000 in 1999 – affecting mainly historically black universities. Nevertheless, the later upward trajectory in budget allocations had allowed for spending on infrastructure, bursaries and improved evidence-based research to support higher education.

Human resources

Although learner: teacher ratios were relatively low in the formerly white schools, compared to ratios in formerly black schools in 1994, government has since tried to equalise the ratios across all schools. By 2000, the high ratios in formerly black schools had disappeared because of the government policies.

Education attainment

Early childhood development (ECD) is critical for improving the results of learners in the education system, and public expenditure has increased fourfold in real terms since 2006. The number of children aged between 0 and 4 years attending ECD facilities has increased.

The introduction of Grade R has proven to be a successful tool to support learners from disadvantaged communities and increase their readiness for school.

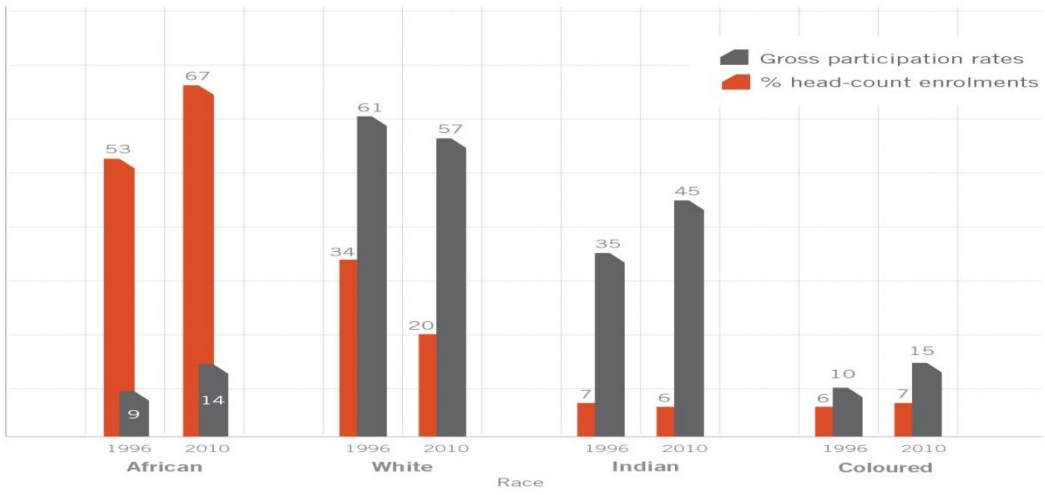
Probably the biggest demand on the post-schooling sector in the past 20 years has been the need to escalate access to education and training opportunities in order to address the inequities of the apartheid system.

Since 1994, the education system has expanded to such an extent that the number Africans aged 20 and over, who had completed Grade 9, increased from only 48 percent in 1994 to 64 percent by 2011. Similarly, the number of Africans in the same age group who had completed Grade 12 increased from 23 percent in 1994 to 64 percent in 2011. The increased access to school is partly due to the success of the Compulsory School Age Policy of the South African Schools Act (SASA), which stipulated that school is compulsory between the ages of 7 and 15 or from Grade 1 to Grade 9. The result has been near-universal primary education and a reduction in over-age learners. However, the increased access was not accompanied by increased quality of the system as whole. The education system has continued to exhibit a bimodal and an apartheid pattern of performance, with the majority of schools underperforming.

The dramatic increases in access to basic education were not experienced in the post-school arena. Higher education had increased access, with the headcount increasing from 525 000 in 1995 to 577 953 in 2000 (Organisation for Economic Cooperation and Development, 2008). These increases have been modest, compared to the situation before 1994. The slow increase in higher education was due to the limited number of learners qualifying to enter tertiary education. This was compounded by declining retention rates at universities during this period.

The face of universities has been changing over time. There are more African students as a percentage of the headcount in universities compared to any other race. However, they represented around 14 percent of the gross participation rate, compared to 57 percent of the white participation rate, in 2010 (see **Figure** 2).

Figure 2: University race composition



Source: Cloete, 2013

In an attempt to partly deal with the challenges of FET colleges, the colleges were merged and chief executive officers (CEOs) and councils were put in place, along with unified budgets, in 2004. The colleges were expected to grow quickly, but

significant resource inequalities continued to exist between the colleges, evident in inadequate infrastructure, student financial aid and calibre of staff. The recapitalisation process of 2006 to 2009 has helped to improve both the infrastructure and the management capacity of many colleges (Department of Higher Education and Training, 2013). On the other hand, during the same period, training provision by not-for-profit and community-based providers, and youth development organisations decreased. This was partly because the formalisation of training in line with the National Qualifications Framework (NQF) added onerous conditions (such as the legal requirement to be accredited and adherence to the quality assurance system) to what might otherwise have been a non-formal training environment.

The phasing out of the national training boards by the Department of Labour resulted in the establishment of 27 SETAs with their respective boards (Department of Labour, 1999).

The Joint Initiative for Priority Skills Acquisition (JIPSA) revived the apprenticeship system as a specific mechanism to address the shortage of artisans and set a target of training 50 000 artisans by 2010. It began with establishing a national benchmark for all artisan qualifications, and the "recognition of four learning pathways to artisan status through FET college programmes, apprenticeships, learnerships and recognition of learning through experience" (The Presidency, 2010: 30).

In the vocational training sector, the occupationally directed programmes at intermediate-level skills started improving around 2006. The number of apprentices that entered training in various sectors through the SETAs increased from just over 4 000 in 2006 to over 17 000 in 2009 (Department of Higher Education and Training, 2013).

By the middle of the implementation period of the National Skills Development Strategy (NSDS) II, at the end of May 2007, an impressive total of 243 729 South Africans had registered for learnership programmes. The proportion of black learnerships increased from 60 percent in the first phase of the NSDS to 73 percent in the second phase, while the proportion of coloured learners stayed at 13 percent, and Indian and white learners declined by 2 percent and 8 percent respectively (Visser & Kruss, 2008).

3. Reflection on achievements

Government has continued to introduce policies and interventions aimed at increasing access, reducing repetitions and dropouts, and creating enabling conditions for learners to attend school. These interventions have included the expansion of the nutrition programme, no-fee schools, Grade R, a reduction in the teacher workload, the introduction of a streamlined curriculum, and workbooks.

At higher education level, access has also expanded, especially in Gauteng and the Western Cape, with registered private higher education institutions increasing to 113. The separation of basic education from higher education meant higher education issues could receive more focus.

Government made education one of its priorities, with basic education as Outcome 1 and post-school education as Outcome 5 among the 12 government outcomes. The delivery agreement for Outcome 1 focused on four outputs:

- Improve the quality of teaching and learning at schools
- Undertake regular assessment to track progress
- Improve early childhood development
- Ensure a credible outcomes-focused planning and accountability system.

These were adopted as a way of changing the trajectory of basic education to increase its quality. The introduction of the outcomes system by government in 2009 has resulted in greater emphasis on improving educational outcomes through various interventions.

The delivery agreement for Outcome 5, focusing on skills development, has five outputs that respond to the challenge of human capital formation. These are as follows:

- Developing an integrated institutional systems for skills planning
- Creating bridging programmes catering for those leaving school before obtaining their Grade 12 certificates
- Expanding the availability of an intermediate level of skills (with special focus on artisan skills)
- Increasing graduates in engineering science, animal and human health, natural and physical sciences and teacher education, and research development and innovation
- Expanding access to an integrated work-based system with the FET and university system.

3.1 Funding

About 70 percent of learners (over 8 million) in 81 percent of public schools (close to 20 000) have been benefiting from the No-fee Policy. This has reduced the cost of accessing school for poor families. The number of people indicating cost as a reason for not attending school has also been declining over the years, showing the positive impact of the No-fee Policy. Households complaining about high fees have declined from 14 percent in 2004 to 5 percent in 2011. The No-fee Schools Policy demonstrated government’s commitment to reducing economic barriers to education.

There has been substantial redress funding in favour of historically disadvantaged institutions (HDIs), which have benefited from infrastructure grants. This has been

especially necessary, given that their capacity to raise subsidies from research publications is below that of the historically white universities, yet their prime function ought to be teaching undergraduate degrees and providing additional support to poor, rural learners who are likely to be underprepared for university study.

The NSFAS has dispensed significant amounts in bursaries to open up access to HEIs and, more recently, FET colleges. Research indicates that more than 25 percent of the total student undergraduate population at universities is on financial aid, and the demand is still growing. The government also offers full bursaries to final-year students who pass all registered courses leading to the completion of their degrees. The aim of this is to improve completion rates.

Approximately R18 billion was made available in discretionary funds of SETAs during the six years of the NSDS II. Of that, some R15.1 billion was spent – which was a 16 percent underspending over the NSDS II period. A significant number of learnerships were funded during NSDS II (40 000 to 60 000 per year). Some 70 to 80 percent of the funding was spent on programmes to achieve full qualifications, with approximately 20 to 30 percent being spent on short courses. Very little of that funding (less than 10 percent) has been directed to training youths and adults in FET colleges and universities, and a larger share has been spent on private training providers.

The NSDS III, released in January 2011, attempted to address this uneven funding by requiring SETAs to spend more on substantive courses leading to occupational, vocational and professional qualifications at public colleges and universities, particularly universities of technology.

The National Skills Fund (NSF), established in terms of the Skills Development Act, is the purse in which 20 percent of the skills development levies collected from employers are held, to be dispensed for training targeted at disadvantaged groups, particularly the unemployed. The NSF's income has been approximately R1 billion a year, but much of it has been unspent. Cumbersome procedures in the application for funds, as well as organisational and staffing constraints, meant that money was not allocated within set funding windows and was rolled over. Nevertheless, the NSF has spent R869 million on training the unemployed between 1 April 2005 and 31 March 2010.

3.2 National School Nutrition Programme

To deal with the impact of poverty, especially nutritional deficiencies, which have been shown to negatively impact on the cognitive development of poor children, government expanded the National School Nutrition Programme (NSNP).

Government's commitment to the NSNP has made a real difference to the health and wellbeing of the country's poor children. The household data of Statistics South

Africa (Stats SA) confirms that virtually all learners from poor households enjoy the benefits of a government-funded school lunch at every school. The introduction of NSNP at secondary schools has meant that more learners are receiving a meal every school day. Approximately 9 million learners in 20 905 primary and secondary schools are served a nutritious meal on every school day (Department of Basic Education, 2012b; 2012e).

3.3 Education attainment

Policies instituted to deal with inefficiency in the schooling system have resulted in a decline in under-age learners at primary school level. These regulations, stipulating age-grade norms for all levels in the schooling system, introduced normality in the system. This resulted in a steady decline in the gross enrolment rate from a high of 118 percent in 1997 to 105 percent in 2007 (Department of Basic Education, 2010). Regulations for determining the correct age of enrolment became effective in 2000.

Table 4: Percentage of 7- to 15-year-old children attending an educational institution by province, 2002–2011

Province	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Eastern Cape	95.5	95.9	97.0	97.4	97.3	97.7	97.6	97.8	98.5	98.5
Free State	97.5	96.8	97.0	97.5	98.7	98.7	98.2	98.7	98.9	98.9
Gauteng	98.1	98.9	98.9	98.5	97.7	97.5	98.3	98.5	98.8	99.3
KwaZulu-Natal	94.8	96.4	97	97.7	97.2	97.5	97.9	98.0	98.2	98.7
Limpopo	97.4	98.0	98.8	99.0	98.9	98.5	98.2	98.8	99.1	99.1
Mpumalanga	97.2	98.1	98.6	97.9	98.1	97.9	98.2	98.3	99.1	99.0
North West	95.4	96.7	97.7	96.3	95.9	96.9	97.3	97.6	97.8	98.6
Northern Cape	93.6	95.7	96.6	97.5	97.6	97.5	97.5	98.5	98.2	98.6
Western Cape	97.3	97.1	98.1	98.2	97.6	98.2	97.0	98.1	99.1	97.9
National	**96.3**	**97.1**	**97.8**	**97.9**	**97.7**	**97.8**	**97.9**	**98.5**	**98.7**	**98.8**

Source: Stats SA, 2011 (Department of Basic Education's own calculations)

The net enrolment in provinces shows little variation, but it is more important to take note that many of the 7- to 15-year-olds are attending school, which indicates government's success in ensuring that appropriately aged learners are in school at primary level (see Table 4). In terms of the gender parity index (GPI), the Department of Basic Education has been successful in retaining girl children in primary school (see Table 5). Although the system has become more efficient with appropriately aged learners in the system, the results of the ANA show that primary education quality is still low.

Table 5: Percentage of 7- to 15-year-old children attending an educational institution by gender, 2002–2011

Gender	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Male	96.0	96.7	97.4	97.6	97.4	97.6	97.8	98.3	98.6	98.7
Female	96.6	97.6	98.1	97.9	97.8	98.2	98.1	98.6	98.7	98.8
Total	96.3	97.2	97.7	97.8	97.6	97.9	97.9	98.5	98.7	98.8

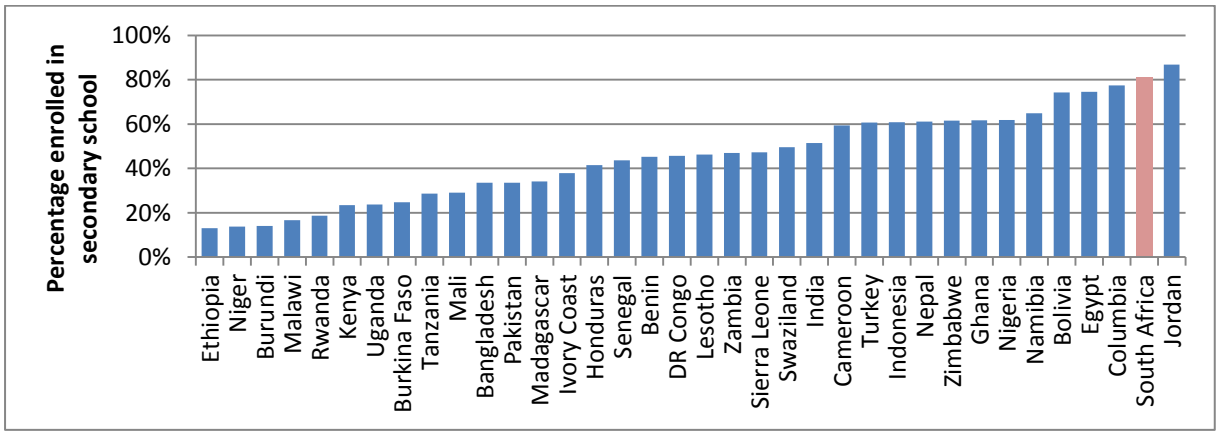
GPI	1.01	1.01	1.01	1.00	1.00	1.01	1.00	1.00	1.00	1.00

Source: Stats SA, 2011 (Department of Basic Education's own calculations)

However, the percentage of 16- to 18-year-olds in any form of educational institution has not seen similar results. By 2002, around 83 percent were in any form of education. This figure rose to 85 percent in 2011. This indicates that the country is still struggling to keep many learners in school after compulsory education. More learners are dropping out of the education system between Grade 9 and Grade 12, limiting the chances of further training for these students.

It is clear that although there are racial inequalities in terms of access, the education system in South Africa has a relatively high participation rate overall among 16-year-olds, compared to selected developing countries. Jordan is the only country with higher participation rates among the selected countries shown in Figure 3.

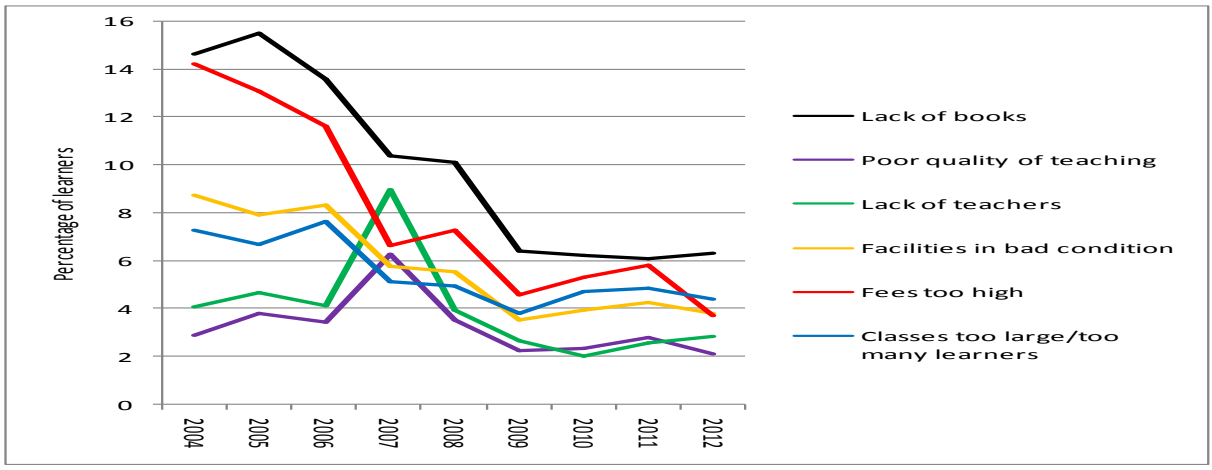
Figure 3: Proportion of 16-year-olds attending secondary school in a selection of developing countries



Source: Department of Basic Education

At the same time, the pro-poor policies of the education system had reduced complaints about a lack of books, fees being too high and facilities being in a poor condition, as shown by Stats SA's general household surveys for the period 2004 to 2012. Figure 4 indicates that the pro-poor policies are having an impact on reducing obstacles to access to education. It also shows that through the economic crisis, financial obstacles to education have continued to decline. This indicates that government policy has not changed through this difficult period.

Figure 2: Schooling problems according to households

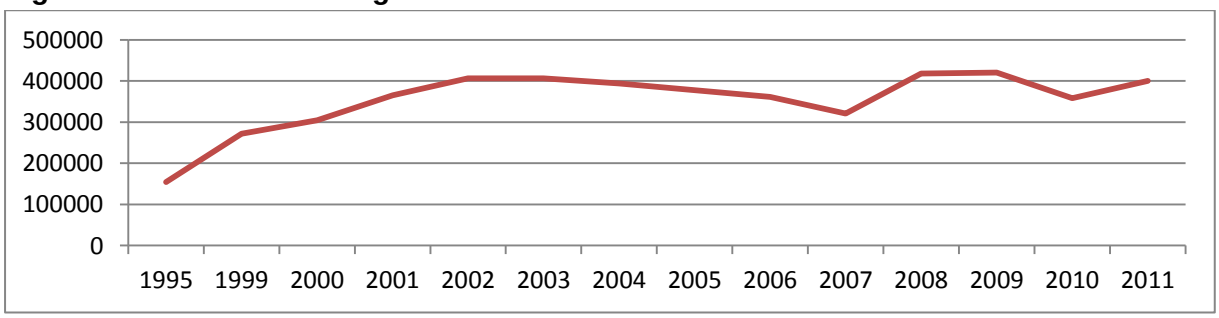


Source: Department of Basic Education, based on Stats SA's General Household Surveys

University enrolment has almost doubled in volume, increasing from 495 356 in 1994 to 938 201 in 2011 at public universities and universities of technology. This is partly as a result of increased financial aid to students. The NSFAS (established in 1999) has steadily grown its allocations to universities and FET colleges from R513 million in 2000 to R3.2 million in 2009. Between 1991 and 2011, as many as 991 759 student beneficiaries received R25 billion in NSFAS loans and bursaries (Department of Higher Eeducation and Training, 2013). Increased access to this funding has reduced financial obstacles to FET colleges.

Colleges were slowest to expand enrolment in the immediate period following 1994. Even after the mergers, the public FET sector failed to attract students for a variety of reasons, including poor marketing, lack of capacity and a poor image. Enrolments have nevertheless recently surged from 271 900 in 2000 to just more than 400 000 in 2011 (see Figure). The FET Plan, published in 2008, envisaged FET colleges being repositioned as "institutions of choice". A total of 100 000 new spaces opened up across all FET colleges in 2013. Bursaries for FET college students increased from R100 million in 2007 to R1.7 billion in 2012, benefiting some 237 908 students between 2009 and 2011.

Figure 5: Public FET college enrolment



Sources: Department of Education, n.d.; Department of Higher Education and Training, 2011.

Perhaps the biggest disappointment in terms of access has been ABET. Annual enrolment at public adult learning centres (PALCs) averaged just below 300 000 annually between 1999 and 2011. Whereas Census 1996 recorded 19 percent of the population aged 20 years and older as having no education, this dropped to 9 percent in Census 2011. Challenges remain, and it appears that sufficient attention has not been paid to learning opportunities for adults beyond the massive literacy campaign, Kha Ri Gude.

In prioritising the development of human capital, government prioritised the production of graduates in engineering sciences in 2009. By 2012, substantial funds had been allocated to universities to deal with resource constraints through an infrastructure and efficiency grant. The infrastructure and efficiency grant ensured that the growth rate for these subjects increased. Similar decisions were taken to increase the production of health professionals, a sector that also has scarce human resources.

4. Towards improvement

4.1 Education attainment: early childhood development

Government has been working to support learners from disadvantaged communities and increase their readiness for school. Growth in Grade R enrolments has been one of the most striking achievements in the schooling system over the last decade. Between 2003 and 2011, the percentage of children aged five enrolled in an education institution increased from 50 percent to 85 percent (Statistics South Africa, 2011). The increase in Grade R coverage from 85 percent to 94 percent of learners between 2009 and 2011 is roughly mirrored by the increase in Grade R enrolments in schools (public and independent) from around 620 000 to 735 000 over the same period (in 2012 the figure rose further to around 768 000).

Near-universal coverage of Grade R and the Foundation Phase is a massive investment the country is making in increasing the life chances of learners in the country. As the quality increases, the country stands to reap massive dividends for this investment in the future.

4.2 Education attainment: throughput rates

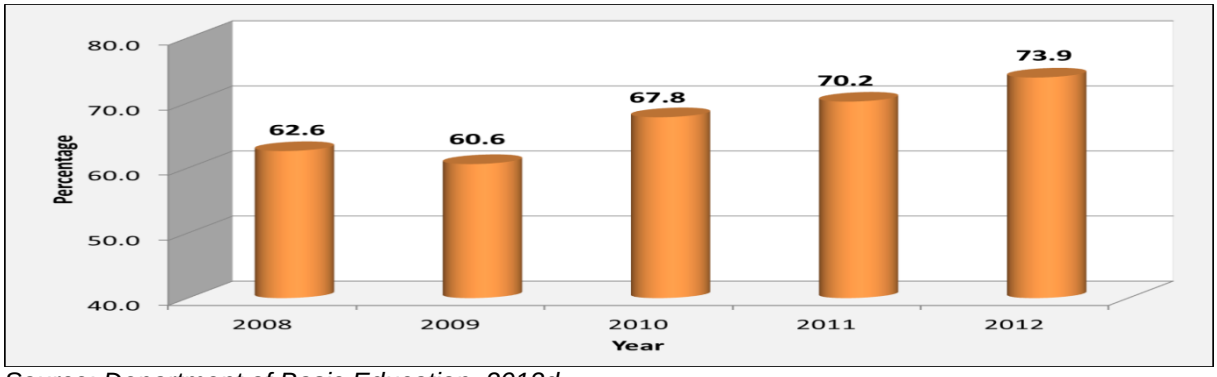
The inclusion of high schools in the NSNP in 2011/12 has the potential of reducing the high school dropout rate, a fact noticed in the case of primary schools. The expansion of the programme at the secondary level is an additional mechanism for curbing secondary school dropouts. It will take some time to determine whether this policy will have the same impact of retaining more learners in high schools as it did in primary schools, even though it is not combined with a compulsory education policy for the FET phase.

While the dropout rate is very low at primary school level, the rates are higher, at 12 percent, for Grade 9 to Grade 11, showing a need to improve the retention rates at high schools (Department of Basic Education, 2011). More children are completing Grade 9, which is the last year of compulsory education. Stats SA data from several years indicates that 98 percent of children aged 7 to 15 are in school.

However, because many learners repeat grades and some drop out when they are 15 or shortly thereafter, the issue of learners dropping out after Grade 9 is a huge concern, especially if it is considered along with other challenges. Few of these learners enter the FET college sector, and therefore the number of young people without a qualification is increasing. This, in turn, increases the number of young people not in employment, education or training (NEET). The labour market absorption rate is highest for individuals with tertiary qualifications, followed by those with a National Senior Certificate (NSC). However, the absorption rate is much lower for those without an NSC or with only primary school education (Stats SA, 2012). This clearly indicates the importance of people with a Grade 12 or tertiary qualification standing a chance of being employed. It is therefore important that much fewer learners drop out before they reach Grade 12 as a way of starting to overcome the unemployment challenge. The system needs an effective mechanism to increase retention, while increasing the quality of education.

At the same time, better articulation is needed between the FET phase and FET colleges, so that learners can seamlessly move to FET colleges rather than completely dropping out once they reach this phase. This will give them the opportunity to receive training that enables them to move on to higher education if they want to, which will give them better opportunities for gainful employment.

Figure 6: Overall matric pass rate



Source: Department of Basic Education, 2012d

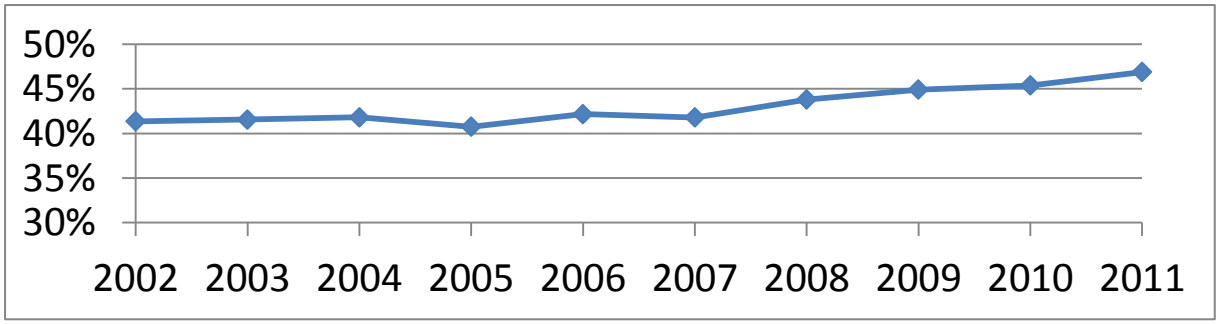
Since 2009, Grade 12 pass rates have been increasing from 61 percent in 2009 to 74 percent in 2012 (Department of Basic Education, 2012d). Considering that the NSC, especially with good results, opens many doors for youths, it is encouraging that more learners are passing matric. The number of passes has fluctuated, but the

general trend has been a positive one, with around 7 500 new passes being added to the total number each year over the period 2000 to 2012.
What the above figures exclude is the increasing number of youths obtaining their NSC outside the schooling system as part-time candidates. The number of part-time candidates has increased phenomenally, from around 1 000 in 2008 to around 80 000 in the years 2010 to 2012. This reflects government's commitment to giving youths a variety of opportunities to obtain the NSC, even if they do not succeed in obtaining it at their first attempt in a school.

The number of Grade 12 candidates passing with sufficient marks to qualify for university is an important indication of how well the school system is providing opportunities for youths and building the economy. During the period 2010 to 2012, the number of learners who obtained sufficient marks for university studies at the bachelor's level was around 128 000 per year on average, compared to a figure of 70 000 for the period 2000 to 2002. In 2012, the figure was 136 047, constituting an increase of 15 28 from the 2011 figure, the highest it has ever been. Independent school performance increased from 6 763 in 2008 to 6 693 in 2011, but the majority of learners attending university are produced through the public schooling system.

The percentage of 22- to 25-year-olds obtaining their Grade 12 qualifications has been increasing steadily, indicating that more individuals are getting their Grade 12, especially since 2007 (see Figure 7).

Figure 7: Proportion of 22- to 25-year-olds obtaining Grade 12



Source: Department of Basic Education, 2012b.

National Certificate (Vocational) (NC(V)) success rates have been low, but have improved from a rate of 10 percent in 2009 for NC(V) level 1 to 43 percent in 2012. The level 4 performance is improving very slowly from 23 percent in 2009 to 39 percent in 2012 (see Table 6**Error! Reference source not found.**), indicating hat performance is still weak and more needs to be done to improve it.

Table 6: NC(V) success rates

NC(V) level	Success rates			
	2009	**2010**	**2011**	**2012**
2	10%	34%	49%	43%
3	12%	35%	42%	42%
4	23%	36%	41%	39%

Source: Department of Performance Management and Evaluation

Table 7: Throughput rates for three-year degrees with first year of enrolment in 2005 (excluding Unisa)

	Percentage (non-accumulative)				Percentage (accumulative)			
	2007	2008	2009	2010	2007	2008	2009	2010
Graduated	27%	15%	6%	3%	27%	43%	49%	52%
Dropped out	5%	3%	1%	3%	42%	45%	46%	48%

Source: [Author], 2010

University throughputs show that few learners graduate within three years of starting their degrees, with only 27 percent graduating within this time frame (see Table 7). This means that more students stay in the system longer or drop out before they graduate, which indicates inefficiencies in the system. These inefficiencies are worrying if one considers the 30 percent and 33 percent dropout rate at first-year level for degree courses and three-year diplomas respectively (Cloete, 2013). This indicates that resources are wasted. With proper intervention, this wastage can be reduced.

While opportunities for education and training have opened up, success to final graduation has predictably needed time to catch up. Although universities have doubled input, output has not followed pace. Generally, success rates are low and the number of postgraduate qualifications is short of adequate. The reasons are complex and include poor preparation of school-leavers. At the same time, universities have generally not done enough to invest in student support programmes, with many students dropping out as shown in Table 8.

Table 8: Dropout rates: Percentage of students who left HEIs without graduating, 2000–2004 cohort compared with 2005–2010 group

First-time students by intake group	**2000–2004 group**		**2005–2010 group**	
	Contact institutions	**Unisa**	**Contact institutions**	**Unisa**
All three- and four-year degrees	38%	59%	46%	68%
Three-year diplomas	58%	85%	56%	87%
All three- and four-year qualifications at all institutions	56%		About 58%	

Source: Department of Higher Education and Training, 2013

Success in artisanal training has also been a challenge. Between 2000 and 2006, 3 430 artisans had successfully completed the trade test, while only 2 303 qualifications had been recorded by the Institute for National Development of Learnerships Employment Skills and Labour Assessments (Indlela) between 2005 and 2009/10 (the period of the NSDS II). Less than half (41 percent) of those registered for the trade test in the last period were successful, and of those, 24 percent took the test again.

The low pass rate in key sectors, such as construction and the low numbers coming through structured SETA programmes – mainly young school-leavers – was particularly disappointing. Although participation in the apprenticeship system has been shown by various studies to have positive outcomes in terms of employment, a study by the Human Sciences Research Council (HSRC) found it was not the first choice for school-leavers. The recent push to increase these intermediate trade-related skills, however, does seem to be paying off. Between 2007 and 2008, 6 030 artisans were qualified and funded by the various SETAs. Between 2010 and 2011, that number jumped to 11 778 qualifications.

Although there was a proliferation of unit standards-based qualifications registered on the NQF and learnerships accredited by the SETAs, there was little uptake in these. Very few programmes actually offered the pro forma unit standards, and very few qualifications were awarded. Of the 787 new unit standards-based qualifications registered, only 172 qualifications had awards made against them to a total of 37 841 individuals by 2009 (Allais, 2012: 17).

SETAs blamed a lack of accredited providers for their non-delivery of learnerships, although many firms appeared reluctant to invest in training. The design of learnerships was certainly complex. Although the specification of outcomes for the awarding of unit standards was meant to make accreditation transparent, it resulted in an unwieldy process. Furthermore, the quality assurance process that accompanied learnerships was both costly and impractical. It required, for example, the training and accreditation of assessors on a large scale – for each learning programme against each qualification and/or unit standard.

The success rate of ABET is discouraging. The annual attrition rate remains at 50 percent and the throughput rate (those achieving a full General Education and Training Certificate (GETC)) is extremely low. Most learners collect only a few unit certificates, so there is almost no progression to further learning. Despite this, the Kha Ri Gude literacy programme appears to have been a success. The participation rate was good, with around 3.5 million learners who registered for the programme.

Increasing the retention rates of both basic and post-school education is important if the country is to improve the unemployment rate in the country. Analysis shows there is a premium associated with qualifications, for example, in 2012, the highest tenure was associated with employees who had a tertiary education (at 68 months), compared to those who had only completed secondary education (at 44 months). Between 2009 and 2012, the highest increase in median job tenure was among employees with a tertiary education (Statistics South Africa, 2012). Access to benefits is higher across the board for employees who are better educated and highly skilled.

Specifically considering the youth, youths NEET makes up 3.3 million of the 10.4 million learners aged between 15 and 24 years. The highest percentage of

youths NEET consists of individuals with no schooling (55 percent), followed by those without secondary school education and then those with less than primary school education (see Figure 8). The challenge is to keep more learners in the system in order to reduce the number of learners who do not complete their education. The school system is failing the NEET youth.

Figure 8: NEET rate for youths aged 15–24 years, by level of education

Source: Statistics South Africa, 2012

The above analysis indicates that those less educated are more vulnerable than those with a more complete education. It is thus important that the education system becomes more efficient in ensuring that learners and students obtain their qualifications rather than dropping out. It is also important that the reasons for dropping out are clearly understood and dealt with, while improving the quality of the education system.

4.3 Education attainment: science, engineering and technology

While general performance – especially in Mathematics and Science – has been low and unchanging for the last 20 years, TIMSS 2011 demonstrated the first improvement of educational outcomes, especially at the lowest and poorest levels. Internationally comparable information confirms that the education system is starting to turn around, especially among the poor. TIMSS results for 2011 indicate large improvements in the Mathematics and Science results of Grade 9 learners between 2002 and 2011. The increases over the two cycles of TIMSS in South Africa mean that learner performance has improved by one and a half grade levels. Improvement at Grade 9 level is seen because learning is getting better in the earlier grades. Moreover, improvements in Mathematics are possible because learners are getting better at reading instructions, meaning that learning is improving in the language subjects.

However, South Africa still has a low average performance in Mathematics and Science, which means that South African learners are performing below the level expected for Grade 9 learners. This reflects the wide disparities in society and in schools, and is evident in the educational outcomes of the learners. In 2011, the variance in the range of Mathematics and Science scores in South Africa decreased, suggesting that the country is moving (albeit slowly) towards more equitable educational outcomes. The achievement scores at the lowest levels (5^{th} percentile) are generally those of learners from low-income households and the most disadvantaged schools. These lowest scores increased between 2002 and 2011.

Another factor that limits access to science, engineering and technology (SET) education is the introduction of Mathematics Literacy. The unintended consequences of introducing this subject as a replacement for Mathematics is that while the number of learners opting for Mathematics Literacy has been increasing, the number of learners opting for Mathematics declined from 290 407 in 2009 to 225 874 in 2012. Similarly, for Physical Science, the number of learners has been declining since 2009, but the percentage achieving above 40 percent has been increasing from 21 percent to 39 percent. These subject choices learners make mean that they are unable to take advantage of opportunities existing in the engineering sciences, especially since these courses require Mathematics instead of Mathematics Literacy.

Generally viewed as critical for stepping up economic development, the growth in SET enrolments in HEIs is important. Between 2000 and 2009, graduation rates in these fields grew by 5.5 percent per annum**Error! Reference source not found.**. owever, this is from a low base. The improvements in the SET field appear to have come at the expense of humanities graduates, which only increased by 0.5 percent per annum.

Table 9: Graduates output by major field of study, 2000–2010

	Actual graduates											**Average annual percent-age**
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	
Science, engineer-ing and technology	24 136	24 995	26 630	29 546	31 443	33 499	35 555	36 429	38 820	40 973	41 156	5.5%
Business/ manage-ment	19 912	22 590	24 217	26 954	29 327	28 144	30 108	31 062	31 871	33 788	40 751	7.4%
Education	15 568	18 737	21 487	24 242	29 253	29 054	28 554	28 337	29 636	35 532	37 665	9.2%
Other humanities	28 581	25 236	24 955	24 988	27 060	29 355	30 404	30 788	32 844	34 517	30 015	0.5%

Education attainment: race and gender representation

Since 1994, there have been substantial demographic gains in terms of redress on race and gender. African enrolments in HEIs grew as a proportion of total enrolments from 40 percent in 1993 to 78 percent in 2011 (see Table 10**Error! Reference ource not found.**).

Table 10: Percentage distribution of enrolments in public HEIs

	1993	1997	1999	2001	2003	2005	2007	2009	2011
African	40	58	59	61	60	60.9	62.6	65.5	80.5
Coloured	5	5	5	5	6	6.3	6.4	6.6	
Indian	7	7	7	7	7	7.4	6.9	6.4	
White	47	31	29	27	26	25.2	23.7	21.4	19.5

Source: Council on Higher Education, 1999; Stats at a Glance, 2001–2011.

Significantly, women now outnumber male enrolments in higher education. In 1993, women made up 43 percent of enrolments in universities and technikons (Council on Higher Education, 1999). By 1997, the proportions were almost even (Council on Higher Education, 1999), with women then stretching ahead as the majority in HEIs. By 2011, women made up 54 percent of all students enrolled in contact programmes, and 63 percent of those enrolled in distance education programmes (Department of Higher Education and Training, 2013).

The racial profile of learners in FET colleges has also dramatically changed from being almost completely white in 1994 to matching the profile of the country.

However, the positive trend does not mean that students of all races have equal access in practice to any institution they might like or that all schools have comparable resources. Participation rates are still skewed in favour of white and Indian students. Only 14 percent of African and 14 percent of coloured students are enrolled in HEIs, as opposed to 57 percent of white and 58 percent of Indian students (see Table 10).

Blacks and female students are under-represented in SET programmes, as well as in business and commerce courses. Postgraduate studies are dominated by white males.

4.4 Human resources

To attract the right people to the teaching profession and ensure that South Africa retains its best educators, pay scales were restructured and the average purchasing power of educators improved by 30 percent between 2007 and 2012. Government has worked intensively with teacher unions to restructure pay scales and improve the starting salary of young teachers, while recognising experience and promoting opportunities.

In 2007, the Funza Lushaka Bursary Scheme for youths wishing to become teachers was launched, because it was clear that existing state-funded bursaries were insufficient or too inflexible to encourage enough youths to enter teaching. Spending on Funza Lushaka increased from R180 million in 2008 to R672 million, a real inflation-adjusted increase of 200 percent. In 2013, just over 14 000 students received Funza Lushaka bursaries.

The challenge remains that not all provinces are able to quickly absorb graduates, thereby jeopardising their utilisation.

4.5 Infrastructure

Poor school infrastructure remains a large challenge for both the schooling and post-schooling systems, but advances has been made. For instance, since 1996, the number of schools with no running water dropped from around 9 000 to around 1 700, and the number of schools without electricity dropped from 15 000 to 2 800. Since 2011, the Department of Basic Education has become more directly involved in infrastructure development, largely through the new Accelerated Schools Infrastructure Delivery Initiative (ASIDI). There is now more transparency in government's school infrastructure programmes. For instance, lists of schools that are being targeted for infrastructure improvements, whether through national or provincial initiatives, are available on the Department of Basic Education's website.

4.6 Curriculum

Curriculum stability is one of the important pre-conditions for starting to turn the education system around. To overcome vagueness, the successor to the outcomes curriculum, the National Curriculum and Assessment Policy Statement (CAPS) was introduced in 2012. This is not a new curriculum, but presents the curriculum in single, concise policy documents. The aim is to provide details on what teachers need to teach and assess at specific grade level and in a subject area. It is also aimed at lessening the administrative load on teachers, while providing clear guidance and consistency for teachers when teaching.

4.7 Annual National Assessments

Two large government innovations in 2011 were the introduction of workbooks and the first full-scale implementation of the ANA Programme. The ANA adapt best practices in other developing countries, such as Brazil, to the South African context in order to monitor the performance of the system not only at the terminal point, but throughout the system. In 2011, the ANA involved having all learners in Grade 1 to Grade 6 sitting for nationally set grade-specific language and Mathematics tests. The ANA represent government's attempt at making the whole system more accountable.

The ANA results showed that learners, particularly in poorer communities, performed far below the level set by the official curriculum. For instance, only 39 percent of Grade 6 learners obtained an adequate ANA mark in their home language, and only 11 percent scored more than 50 percent in Mathematics.

Table 11: ANA grade 3 scores by province, 2012

Province	Average percentage mark	Percentage learners achieving 50% and more	Average pass mark	Percentage learners achieving 50% and more
	Mathematics		**Language**	
Eastern Cape	40.5	34.9	50.3	52.7
Free State	44.7	41.8	56.3	65.2
Gauteng	46.9	47.9	54.8	61.7
KwaZulu-Natal	42.2	37.6	53.5	59.2
Limpopo	34.4	23.7	47.9	48.8
Mpumalanga	35.6	25.0	48.0	48.9
Northern Cape	37.9	31.2	49.4	51.4
North West	34.1	23.4	46.4	46.3
Western Cape	47.4	48.0	57.1	67.4
National	41.2	36.3	52.0	56.6

Source: Department of Basic Education

Disaggregating Grade 3 performances by province reveals that provinces are at different levels of performance, with the Western Cape and Gauteng leading in performance. North West had the lowest average score in Mathematics at 34 percent and 46 percent in language (see Table 11**Error! Reference source not ound.**).

Lessons from the rest of the world recommend that government needs to stick to the strategies that work and dedicate itself consistently, year after year, towards raising the levels of learner performance. ANA are not only a measure of progress, but helps government to ascertain where support for better learning and teaching is mostly needed.

4.8 Workbooks

The other major achievement during the past 20 years has been the increase of reading material available to schools in the form of workbooks. By 2013, around 114 million full-colour national workbooks had been distributed to schools since the beginning of 2011. Schools have literally been flooded with workbooks, indicating government's commitment to increasing literacy and numeracy levels in schools. The National Workbooks Programme is the largest programme of its type ever to be carried out in South Africa.

To increase access to textbooks, government has been working with the provinces to curtail the costs of textbooks and ensure that quality textbooks are used by schools. The Department of Basic Education has been developing timelines and monitoring the ordering, purchase and distribution of textbooks. Over the years, it has become more efficient in producing the National Catalogue from which schools select and order their textbooks. A central procurement procedure by provincial departments serves to contain textbook prices. Distribution to schools was a challenge, but has been improving considerably through the years.

4.9 Health in schools

The introduction of a comprehensive national strategy to promote learner health is aimed of improving the health of school learners. For a long time, the health of learners had not been taken care of. In 2008, it was established that 90 percent of South Africa's learners' eyes had not been tested. Limited vision could be affecting learner performance, and neither the learner nor the school would be aware of it.

The Integrated School Health Programme was officially launched in 2012. The programme has begun rolling out key services to all schools, including eye tests and deworming. One aim of the programme is that every child should receive a comprehensive health assessment at school every three years.

5. Summary and recommendations

The interventions discussed have not had the desired effect in improving the performance of basic education, even though the TIMSS results show that interventions are starting to have an impact, especially in the education of poor children. These children's scores have risen between the two sets of TIMSS assessments. However, the performance is still below the required level, given the resources invested in education as a percentage of GDP.

ANA results confirm that the system is still operating at a low level at Grade 3, Grade 6 and Grade 9. They are pointing to the need for government to focus on improving the performance of primary education, and supporting the quality of learning and teaching. The bimodal nature of performance in public schools has to be dealt with by improving the performance of the historically black schools, which serve the majority of learners.

It is therefore important to build on the successful expansion of the Grade R Programme by working hard to introduce measures to strengthen its quality in the coming years as part of laying the foundation for improved learner performance. Similarly, it is imperative that the quality of ECD provision be improved in order to give learners from poor backgrounds the support to enter school fully equipped to succeed. ECD should be expanded to also cover the first 1 000 days of life. Multisectoral coordination is being strengthened to ensure that a more comprehensive set of services – nutrition and food security, antenatal and postnatal

care, home-based and community-based ECD programmes – is offered, with a greater focus on improving access for poor children.

The majority of the interventions in the past have concentrated on creating enabling conditions for schools, but what happens in the classroom has not been fully transformed and supported to ensure effective teaching. The schooling system cannot function beyond the capability and support of its teachers and administrators. More efforts are needed to develop and support the development of the content knowledge of teachers. Holding schools accountable for the performance of their learners has to be accompanied by programmes that support teachers in improving their pedagogical skills and content knowledge. The nature, quality and outcomes of the training programmes and even the university-based upgrading of teacher qualifications should be scrutinised. While there has been a huge emphasis on training for skills and competencies in order to bring about increased performance, there are many non-technical aspects (like work ethic, work values and culture) that affect the performance of school officials and that have not been emphasised. In coming years, it is important to develop the non-technical aspects of teaching and experiment with alternative models of developing teacher capability, as well as other aspects of professionalism. Classroom practices, such as ensuring curriculum coverage each year and providing effective feedback to learners on their performance, need to be cultivated.

The weakest link in basic education is the role the school district should be playing in monitoring school performance and being accountable for school performance. Without effective school districts, schools will not get the kind of support they need, and plans for improving schools will remain plans on paper unless districts take an active role in ensuring that they are implemented.

District oversight without active parental involvement in the education system will not translate into quick wins in the education system. Parental involvement should go beyond participation in the school governing body (SGB) to include parents supporting the learning of their children and showing interest in their children's work. Apart from holding schools accountable for the performance of their children, more active parents who support the education of their children are needed. At the same time, it should be noted that schools are microcosms of their communities. The things that happen in communities affect schools, and there is thus a need to assist communities to support education and to reduce children's exposure to activities that are not conducive to learning. Social traits, such as self-discipline, need to be developed in schools and the community. School administration and management has to be developed to strengthen schools. Continued resources are needed to increase household resources, as well as continued investment in adult education to improve parental educational levels. The significant increase in learner performance in TIMSS is starting to point to the role of increased parental education and resources.

School management needs to be improved to focus more on performance. The no-fee schools need to be strengthened to convert resources into well-performing schools. There is a need to strengthen the oversight role of the Department of Basic Education over provincial education departments, and streamlining issues that affect accountability in concurrent settings.

Infrastructure backlogs need to be dealt with, and more creative ways are needed to deal with backlogs, while ensuring that the maintenance of existing structures takes place. This should be done to avoid the added burden of the degradation of existing structures on the infrastructure challenges already faced by the education sector.

The lack of infrastructure and equipment at historically disadvantaged universities should be addressed. The establishment of two new universities in Mpumalanga and the Northern Cape respectively will improve access to higher education.
The Department of Higher Education and Training has to provide and raise the status of an alternative pathway to the labour market for those who do not attain matric. One cannot realistically aim for near-universal completion of matric. Post-school education and training is affected by the quality challenges of basic education. Consequently, there is a need for developing and supporting remedial courses at the level of post-school training, in order to increase the performance of institutions, such as the FET colleges and universities.

The funding of universities needs to incentivise graduation rates, while still promoting research. Concerted efforts are needed to increase the qualifications of lecturers, replenish the stock of lecturers, and encourage more female and African students to become lecturers, especially in the science fields. For some time, universities will have to provide study programmes to assist underprepared learners entering higher education. Funding should incentivise those universities that successfully carry out this work.

The dropout and throughput rates at FET colleges remain a challenge because learners leave school poorly prepared to enter the FET institution. If the quality of lecturing is also weak, it compounds the challenge of increasing performance. The management of FET colleges needs to be strengthened in order to increase the value for money invested in these institutions. Limited access to experiential learning is a major constraint to learners getting their qualifications. There is thus a need to work much closer with industry to improve opportunities for placement. FET college lecturers should have technical knowledge, pedagogical training and current industry experience, but in reality rarely have even two out of three of these qualities. Improving the quality of FET college lecturers will go a long way to improving the performance and quality of FET colleges.

Stronger alignment between SETAs, education and training providers and companies is also needed in determining and regularly updating curriculum frameworks and assessment standards so that they match industry demand and keep up with shifting global technological developments. Institutional and structural arrangements between education and skills development, the labour market, the production system and other social and economic institutions do not always facilitate the appropriate, responsive and up-to-date development of skills and capabilities.

The limited geographical spread of learnership and apprenticeship opportunities, concentrated in metropolitan areas, means that the most vulnerable are disadvantaged. Although the SETA learnership system was celebrated at its introduction as one way of improving work-readiness and skills development, many of the learnerships are of limited value. The skills that are transferred tend to be narrowly focused and driven by the need to produce qualifications for jobs, rather than being underpinned by a broader set of vocational skills. Without a strong theoretical component, learners are being trained to perform immediate tasks and are not given the more general vocational capacities that would allow for flexibility, mobility and responsiveness to changing economic and labour environments.

The academic staff at most universities remain largely white and male, despite progress since 1994. There is a need to take steps to increase the lecturing staff from other race groups, and to replenish the aging academic staff. In FET colleges, there is a need to support the remedial work that universities have to embark upon to prepare learners for university academic life. Funding strategies for universities are needed that strengthen teaching in universities without reducing the importance of research. To improve university throughput, funding should reward graduate output without reducing the attractiveness of learners from disadvantaged backgrounds.

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