REPUBLIC OF SOUTH AFRICA

MILLENNIUM DEVELOPMENT GOALS

Achieve Universal Primary Education

The South Africa I know, the Home I understand

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MILLENNIUM DEVELOPMENT GOALS

Goal 2: Achieve Universal Primary Education

October 2013

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ACRONYMS

ABET	Adult Basic Education and Training
AET	Adult Education and Training
ANA	Annual National Assessment
ANER	Adjusted Net Enrolment Rate
ASIDI	Accelerated Schools Infrastructure Delivery Initiative
BEd	Bachelor of Education
CPTD	Continuous professional teacher development
DBE	Department of Basic Education
DHE	Department of Higher Education and Training
EC	Eastern Cape
DoE	Department of Education
ECD	Early Childhood Development
ERC	Education Resource Centres
FET	Further Education and Training
FS	Free State
GDP	Gross Domestic Product
GET	General Education and Training
GHS	General Household Survey
GT	Gauteng
HE	Higher Education
HSRC	Human Sciences Research Council
KZN	Kwa-Zulu Natal
LER	Learner-to-Educator ratio
LP	Limpopo
LSR	Learner-to-School ratio
MDG	Millennium Development Goal
MP	Mpumalanga
NC	Northern Cape
NDP	National Development Plan
NEED	National Education Evaluation and Development Unit
NEIMS	National Education Infrastructure Management System
NQF	National Qualifications Framework
NSC	National Senior Certificate
NW	North West
PSE	Post-school education system
SACE	South African Council for Educators
STATSSA	Statistics South Africa
TDI	Teacher Development Institutes
TIMSS	Trends in International Mathematics and Science Study
UN	United Nations
WC	Western Cape

STATUS AT A GLANCE

Goal 2: Achieve Universal Primary Education						
Indicators	**1994 baseline (or nearest year)**	**2010 Status (or nearest year)**	**Current status (2013 or nearest year)**	**2015 Target**	**Target achievability**	**Indicator type**
Target 3: Ensure that by 2015, children everywhere, boys and girls alike will be able to complete a full course of primary schooling						
Net enrolment ratio in primary education	Data deficiency	Data deficiency	Data deficiency	NA	**NA**	MDG
Adjusted net enrolment ratio in primary education	96.5 (2002)	98.8 (2009)	98.9 (2011)	100	**Likely**	Domesticated
• **Male**	96.8 (2002)	99.0 (2009)	99.2 (2011)	100		
• **Female**						
Proportion of learners starting grade 1 who reach last grade of primary	89.2 (2002)	91.8 (2009)	93.4 (2012)	100	**Likely**	MDG
• **Male**	90.1 (2002)	93.4 (2009)	96.1 (2012)	100		
• **Female**						
Literacy rate of 15-24 year-olds	83.3[1] (2002)	88.9 (2009)	90.7 (2011)	100	**Likely**	MDG
• **Male**	88.4 (2002)	93.1 (2009)	94.6 (2011)	100		
• **Female**						
Gross enrolment rate in tertiary education (%)	13 (2001)	15 (2009)	16 (2011)	20	**Likely**	Domesticated
• **Male**	15 (2001)	19 (2009)	22 (2011)	20	**Achieved**	
• **Female**						
Learner-to-Educator ratio	33:1 (2005)	31:1 (2009)	30:1 (2012)	30:1	**Achieved**	Domesticated
Primary school completion rate for people with disabilities	NA	NA	67 (2011)	No target	NA	Domesticated
• **Male**	NA	NA	78 (2011)	No target		
• **Female**						

[1]Figures may have changed from 2010

Goal 2: Achieve Universal Primary Education						
Indicators	**1994 baseline (or nearest year)**	**2010 Status (or nearest year)**	**Current status (2013 or nearest year)**	**2015 Target**	**Target achievability**	**Indicator type**
Secondary school completion rate for people with disabilities • **Male** • **Female**	NA	NA	35 (2011)	No target	NA	Domesticated
	NA	NA	43 (2011)	No target		
Infrastructure (Electricity) (% of schools)	NA	NA	85.7 (2011)	100	NA	Domesticated
Infrastructure (Water) (% of schools)	NA	NA	90.3 (2011)	100	NA	Domesticated
Infrastructure (Sanitation) (% of schools)	NA	NA	96.3 (2011)	100	NA	Domesticated
Infrastructure (Perimeter fencing) (% of schools)	NA	NA	89.3 (2011)	100	NA	Domesticated
Annual National Assessment: Grade 3 (% of learners) • **Numeracy** • **Literacy**	NA	NA	36.3 (2012)	60	NA	Domesticated
	NA	NA	56.6 (2012)	60	NA	
Annual National Assessment: Grade 6 (% of learners) • **Mathematics** • **Language**	NA	NA	10.6 (2012)	60	NA	Domesticated
	NA	NA	38.7 (2012)	60	NA	
Annual National Assessment: Grade 9 (% of learners) • **Mathematics** • **Language**	NA	NA	2.3 (2012)	60	NA	Domesticated
	NA	NA	38.9 (2012)	60	NA	
National Senior Certificate (NSC) pass rates • **Male** • **Female** **(% of learners)**	62.0 (2009)	69.3 (2010)	75.7 (2012)	87.7	**Likely**	Domesticated
	59.5 (2009)	66.5 (2010)	72.4 (2012)	84.4	**Likely**	
Bachelor Pass	19.9	23.5	26.6	35.6	**Likely**	Domesticated

Goal 2: Achieve Universal Primary Education						
Indicators	**1994 baseline (or nearest year)**	**2010 Status (or nearest year)**	**Current status (2013 or nearest year)**	**2015 Target**	**Target achievability**	**Indicator type**
(% of learners)	(2009)	(2010)	(2012)			
Grade 9 (TIMSS) Maths [2]**Achievement** • **Male**	11.6 (2002)	No data	23.6 (2011)	No target	NA	Domesticated
• **Female** **(% of learners)**	9.5 (2002)	No data	25.5 (2011)	No target	NA	
Grade 9 (TIMSS) Science Achievement • **Male**	14.2 (2002)	No data	23.8 (2011)	No target	NA	Domesticated
• **Female** **(% of learners)**	12.0 (2002)	No data	26.7 (2011)	No target	NA	

[2]TIMSS uses a scale anchoring to summarize and describe student achievement at four points on the mathematics and science scales. These are Advanced Benchmark (score of 625 and above), High (score of 550 and above), Intermediate Benchmark (score of 475 and above) and the Low benchmark (score of more than 400) science scales.

INTRODUCTION

This is a report of South Africa's progress in terms of attaining Millennium Development Goal 2; achieve universal primary education by 2015 which means that all children of school going age, boys and girls, must be attending school or must have completed primary education, regardless of their age. The baseline for assessing this goal is 1994, a turning point in South African history and development as well as the introduction of the right to basic education and to further education, which the state, through reasonable measures, must make accessible and progressively available (Constitution of the Republic of South Africa, 1996). In the case of schooling, the government immediately introduced the Outcomes Based Education (OBE) system and Curriculum 2005 (C2005). Subsequent to the introduction of OBE and C2005, there were two curricular changes and the last of these, the Curriculum and Assessment Policy Statements, was implemented in 2012. Curriculum reform was supported by a change in education governance; the various education departments were disbanded and all the three levels of education were brought together under the national Department of Education (DoE).

The change of the education system was a response to two imperatives; the 21st Century demands of learners with higher level skills and knowledge and the national changes dictated by democratic ideals. Formal education is categorised into three levels, the General Education and Training (GET) band, the Further Education and Training (FET) band as well as Higher Education (HE). For efficiency and effective service delivery, in 2009, DoE was split into two; the Department of Basic Education (DBE) and the Department of Higher Education and Training (DHET). Responsibility for making policies for Grades R through twelve resides with the DBE and the implementation thereof is provincial competence. The nine provincial Departments of Education remain responsible for making policies responsive to their respective local contexts and for implementing them.

The Department of Higher Education and Training (DHET) is responsible for the whole post-school sector. The post-school education system is a term referring to all institutions providing Higher Education and Training (HE), Further Education and Training (FET), Adult Education and Training (AET) formerly known as Adult Based Education and Training (ABET) and also the institutions such as quality councils, advisory bodies and levy-granting institutions. Initial teacher education is part of the post-school system and teacher development is provincial competence. Among other things, DHET is challenged by low participation rates, distortions in size, shape and access to post school education and training as well as quality and inefficiency in the system. The DHET provides for the granting of loans and bursaries to eligible students in order to facilitate access to HE.

The Ministers responsible for the two departments, DBE and DHET are guided by their sectoral strategic plans. The DBE is guided by, the Action Plan to 2014 and the Department of Higher Education and Training by the Strategic Plan for Higher Education and Training 2010-2015. Both sectoral plans are guided by the National Development Plan (NDP) which sets the vision and prescribes the country's development plan up to 2030. The NDP, the Action Plan to 2014 as well as the Strategic Plan for Higher Education and Training identify

quality education, which spans from Early Childhood Development (ECD) to higher education and training, as strategic components of South Africa's long term development. The President makes education a priority and has allocated the sector the largest slice of the country's budget (20%)and 6% of GDP.

According to the Action Plan, the Department of Basic Education has committed to increasing the following: *the number of Grade 12 learners who pass the national examinations and enter a Bachelor's programme at a university from 105 000 to 175 000*, *the number of learners who pass mathematics and physical science to 225 000 and 165 000 respectively, the percentage of learners in Grades 3, 6, and 9 in public schools who obtain the minimum acceptable mark in the national assessments for language and mathematics or literacy and numeracy, access to pre-school opportunities, and access to good quality teaching materials.* The vision targets learners, teachers, parents, school principals, learning and teaching materials as well as school building and facilities. It has plans for initiatives such as to:

- revise the curriculum
- provide learners with workbooks
- develop a teacher development plan with the involvement of all the stakeholders and
- fast-tracking of the provision of basic infrastructure in schools through the Accelerated Schools Infrastructure Delivery Initiative (ASIDI).

In their plans the two Ministers have also committed to the following: making sure that by 2014 all age-appropriate children will have universal access to Grade R, to build universities in Mpumalanga and the Northern Provinces as well as to promote FET Colleges to become institutions of choice.

DEVELOPMENT CONTEXT

In his inaugural speech in 2009, the President Jacob Zuma identified mass joblessness, inequality and poverty as the core challenges for his Presidency. Against this background, he charted the country's New Growth Path. He highlighted the creation of decent work, reducing inequality and defeating poverty as central to the country's economic policies. In response, government departments created a number of national policies including the New Growth Path published by the Economic Development Department, the Department of Higher Education and Training's (DHET) Strategic Plan for Higher Education and Training 2010-2015, and most importantly, the National Development Plan (NDP, 2030) in the Department of the Presidency.

The President called upon all the sections of the society to work collaboratively to make the shift. Education, especially the post-school sector, is important because of its strong links to the government's development agenda. In a country that is troubled by high unemployment rate especially when it comes to youth, education becomes a big social equalizer. Despite the improved growth the country enjoyed in the 1990's, due to the apartheid policy as well as a slow growth rate in the 1970's, South Africa has one of the most inequitable economies in the world and about 40% of the youth is not in education and is unemployed (Cloete, 2009). The global meltdown that affected the world in 2008 made matters worse. In order for South Africa to respond to these national and international economic challenges, the quality of education and consequently skills development needs to be greatly developed and enhanced hence the strengthened DHET.

This report goes beyond the mandate of the Millennium Development Goals (MDG) by reporting on national indicators of development progress. Following an inclusive writing process various stakeholders were consulted for inputs and comments in 3 face to face meetings to report on the progress the country has made with regards to meeting the education imperatives prescribed in the country's key policy documents. The report structure includes the introduction, development context, access to education, efficiency indicators, indicators of quality, outcome indicators and challenges and conclusion.

1. Access to education

Access to education is a broad term which generally measures the progression of a child in the education system from entry into an Early Childhood Development (ECD) Program to post-school qualifications. Section 5 of the report will provide the analysis of the following indicators pertaining to learner access:

- Access to Basic education (compulsory schooling for children aged 7 to 15):
    - Access to ECD
    - Grade 1s who attended Grade R;
    - Net Adjusted Enrolment rate in Primary education;
- Access in Post-School Education:
    - Enrolment in Higher education institutions (Tertiary and FET);

- Enrolment in Adult education and training (AET) previously referred to Adult Basic Education and Training (ABET).

1.1 Access to basic education

1.1.1 Access to Grade R

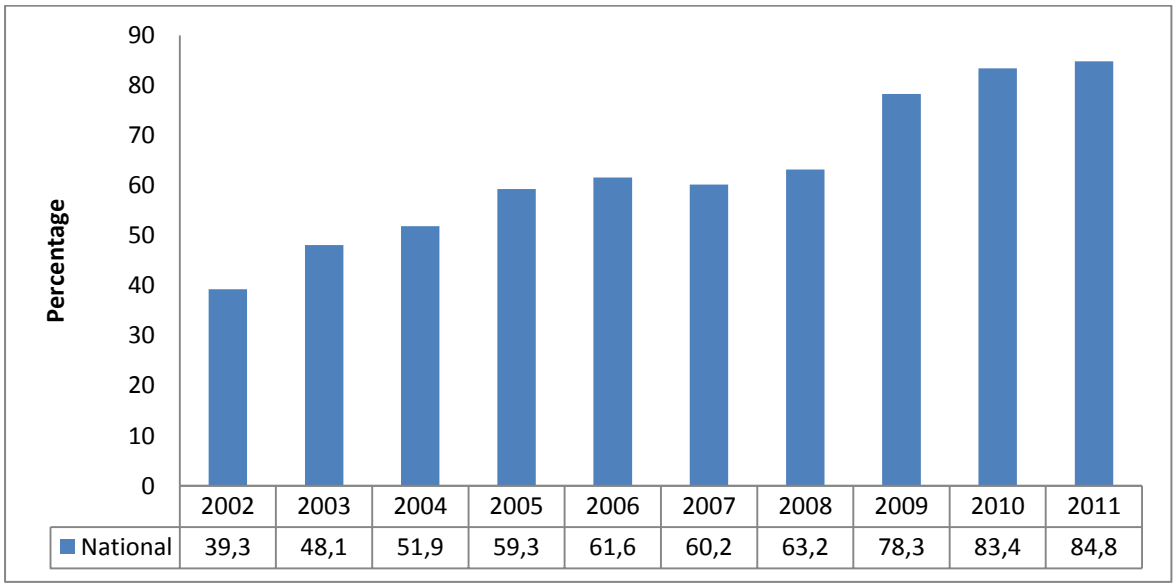
The Department of Basic Education prioritises ECD and Grade R participation. Grade R has been elevated to be part of primary school education. ECD receives attention too. The government makes funding for ECD programmes available. Funding is provided in one of three ways: 1) Funding Grade R in public schools (most of the fund allocation), 2) Funding for community based Grade R which are registered as independent schools and 3) Funding for training fees for learnerships. In addition, Local Government and specifically municipalities are responsible for ensuring that the ECD centres meet the municipal health and safety bi-laws.By 2011 Grade R participation was 87,7% (Department of Basic Education, 2011). Following this, a strategic plan for 2011-2014 was produced in 2010 suggesting that the completion of Grade R universality must be achieved by 2014.

Teacher qualifications are usually cited as one of the challenges faced by the sector. Government Notice 583 stipulates Minimum Requirements for Teacher Education and this includes requirements for Grade R practitioners. Appropriate qualifications for Grade R practitioners are a Diploma in Grade R Teaching and Bachelor of Education in Foundation Phase. In 2010 over 10 000 ECD practitioners were trained through the Public Works Programme. In 2011, through the National ECD Awareness Campaign launched by the Department of Social Development, ECD centres in rural areas throughout the country were registered and eligible children were subsidised.

Figure 1 indicates a steady increase in the percentage of learner with access to Grade R between 2002 (39.3%) and 2006 (61.6%). From 2006 to 2007 however a slight drop was experienced however from 2008 to 2011 a consistent increase can be seen from 63.2 in 2008 to 84.8 in 2011. It is important to note that this data excludes data from stand-alone ECD sites and this makes proper planning difficult because data is not sufficient.

It is important to note that this data excludes data from stand-alone ECD sites and this makes proper planning difficult because data is not sufficient.

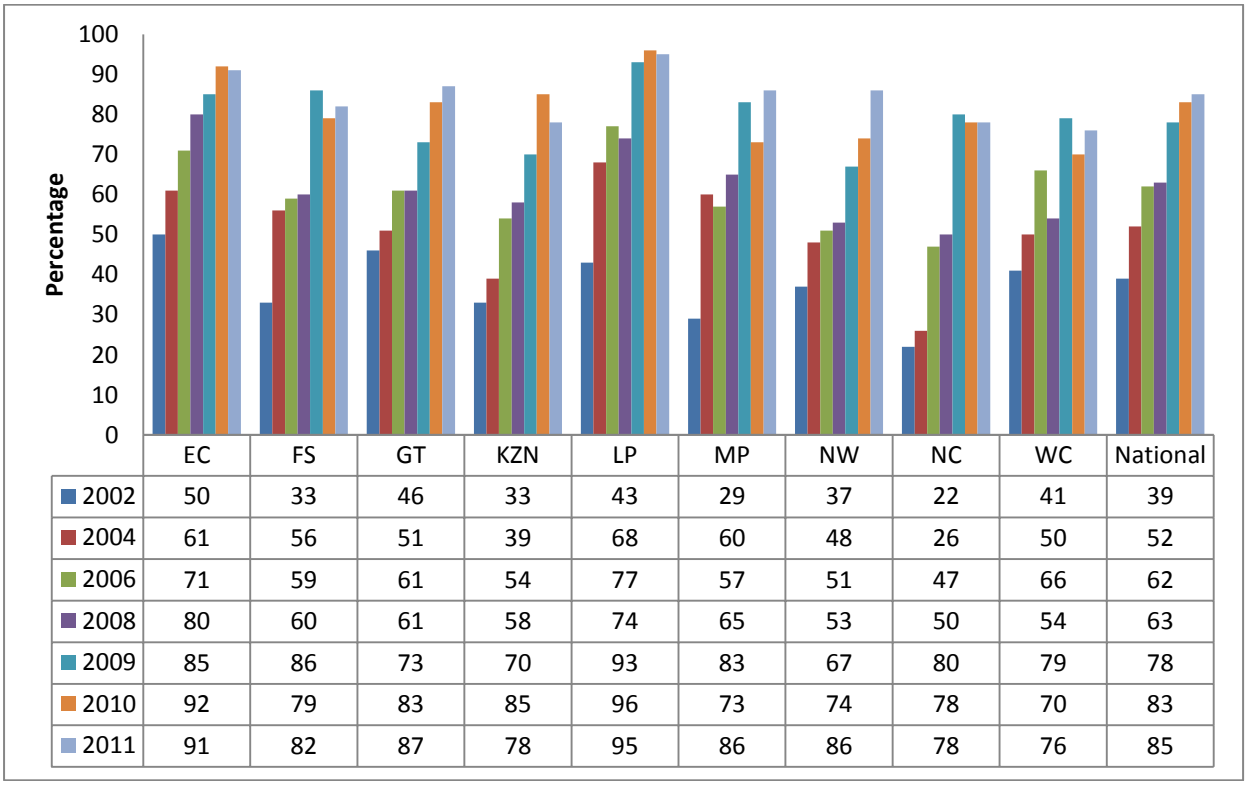
Figure 1: Grade R Enrolment from 2002 to 2012 in Public School



Source: General Household Survey 2011, Statistics South Africa; Focus on schooling, Department of Basic Education

Figure 2 indicates an increase in Grade R provision from 2002 to 2011 in all provinces with the improvement from 2002 to 2011 ranging from 35% to 57% across the provinces. Mpumalanga showed the highest percentage change (57%), followed by the Northern Cape with 56% and Limpopo with 52%. The province showing the least change over time is the Western Cape showing growth of only 35% which is low when compared to provinces like Mpumalanga.

Figure 2: Grade R enrolment from 2009 to 2012 per Province



	EC	FS	GT	KZN	LP	MP	NW	NC	WC	National
2002	50	33	46	33	43	29	37	22	41	39
2004	61	56	51	39	68	60	48	26	50	52
2006	71	59	61	54	77	57	51	47	66	62
2008	80	60	61	58	74	65	53	50	54	63
2009	85	86	73	70	93	83	67	80	79	78
2010	92	79	83	85	96	73	74	78	70	83
2011	91	82	87	78	95	86	86	78	76	85

Source: General Household Survey 2011, Statistics South Africa; Focus on schooling, Department of Basic Education

1.1.2 Grade 1s who attended Grade R

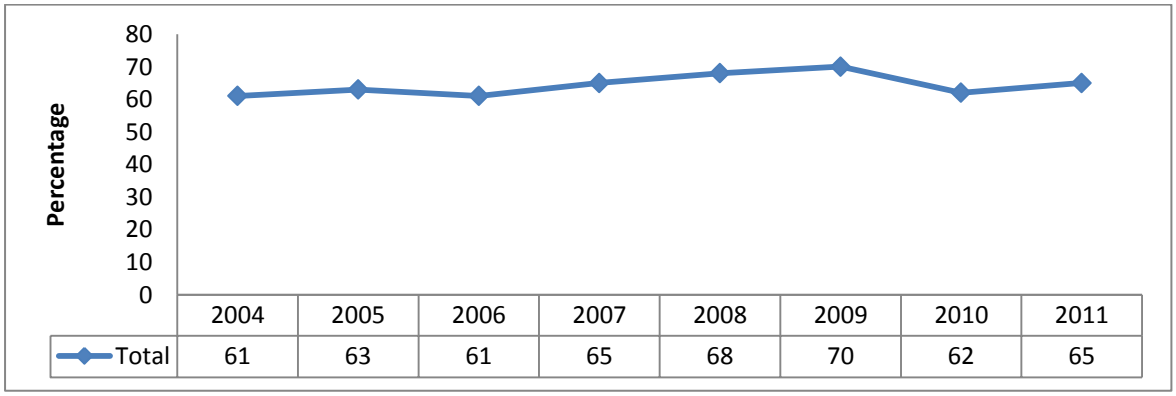
The United Nations Children's Fund (UNICEF, 2001) declares the rights of children and human development as unquestionable reasons for investing in ECD. The DBE's Action Plan to 2014 identifies the provision of ECD as a key area in the Minister of Basic Education's Delivery Agreement for the period up to 2014. This mandate supports the NDP in asserting that quality ECD has the ability to improve learning outcomes throughout schooling. The government has solid plans to ensure that learners who enrol in Grade 1 are learners that have participated in Grade R and even ECD where possible. In 2001, the White Paper 5 on Early Childhood Education phases in universal Grade R as the first year of schooling asserts that all public primary schools will provide accredited Grade R programme by 2010 and mandates that all 5 year olds will be attending a formal Grade R class. Further, in 2005, the government developed a National Integrated Plan for ECD and in 2009, in his State of the Nation Address, President Jacob Zuma underscored the government's commitment to stepping up the ECD programme and of ensuring universal access to Grade R by 2014 (The Presidency, 2009). These are but some of the critical policies that provide the framework for widening access to ECD and universalizing Grade R or treating it as a government priority.

To determine participation in ECD two sources of information were used, DBE as well as a study by Giese et al. (2011). According to DBE (2011), in 2009, almost 80% of 5 year old

children attended an ECD program, which shows a significant increase from 39% in 2002. Despite these gains, there is a concerning number of children younger than 5 years of age who do not attend any ECD program (Giese, Budlender, Berry, Motlatla, Zide, 2011). Giese and fellow colleagues posit that government funding for ECD has increased considerably but is mostly used for Grade R provision as there are some children who should be attending Grade R who go to the ECD centres. They believe that these funds need to be channelled to the deserving recipients. They also posit that investments in the younger ages need to be increased because brain development is fastest during those ages.

The percentage of learners in Grade 1 who attended Grade R was consistent in 2004 and 2011 (Figure 3) with a slight improvement between 2004 (61%) and 2009 (70%). Interesting to note however, that after 2009 a drop was experienced in 2010 (62%) which increased slightly in 2011 to 65% (Figure 3). The target as set in Goal 11 of the "Action plan to 2014" is that, 80% of children should have attended Grade R. If a similar pattern can be assumed for the period 2010 to 2014 as was experienced between 2006 and 2009 which resulted in an increase of 9%, it would mean that South Africa will not reach the goal as stated in the Action Plan to 2014.

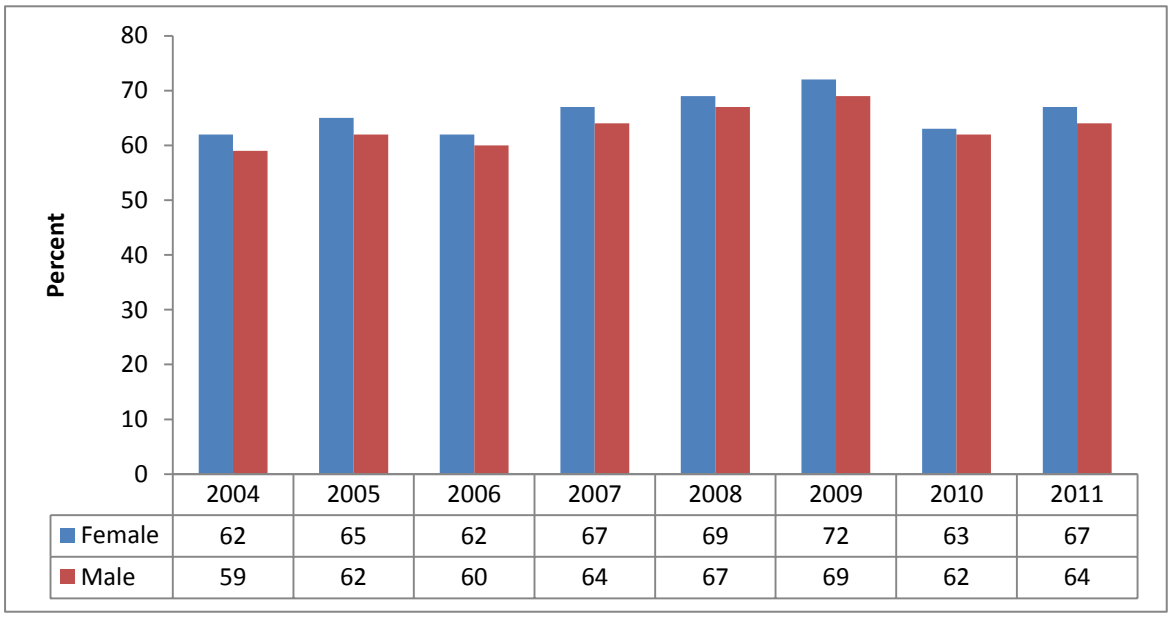
Figure 3: Percentage of Children in Grade 1 Who Attended Grade R (2004-2011)



Source: Annual School Survey (2004-2011), Department of Basic Education

There are more girls than boys who enter Grade 1 after completing Grade R. In 2004, 62% of the girls who enrolled in Grade 1 had attended Grade R and 59% of boys in that same cohort had attended Grade R (Figure 4). Over the period under scrutiny, the average for girls is always higher than that of boys. In 2011, 67% of Grade 1 girls had attended Grade R while only 64% of boys had done so. The enrolment patterns for both boys and girls seem to follow the national patterns. They increase and decrease accordingly. During the steep decrease of the number of Grade R learners going into Grade 1, in 2010, both groups decreased similarly with the girls' enrolments going down more. The number of girls decreased from a high 72% to 63% and boys decreased from 69% to 62% losing 2 % of the 3% advantage they had over boys (Figure 4).

Figure4: Percentage of Children in Grade 1 Who Attended Grade R (2004-2011)



	2004	2005	2006	2007	2008	2009	2010	2011
Female	62	65	62	67	69	72	63	67
Male	59	62	60	64	67	69	62	64

Source: Annual School Survey, 2004 – 2011, Department of Basic Education

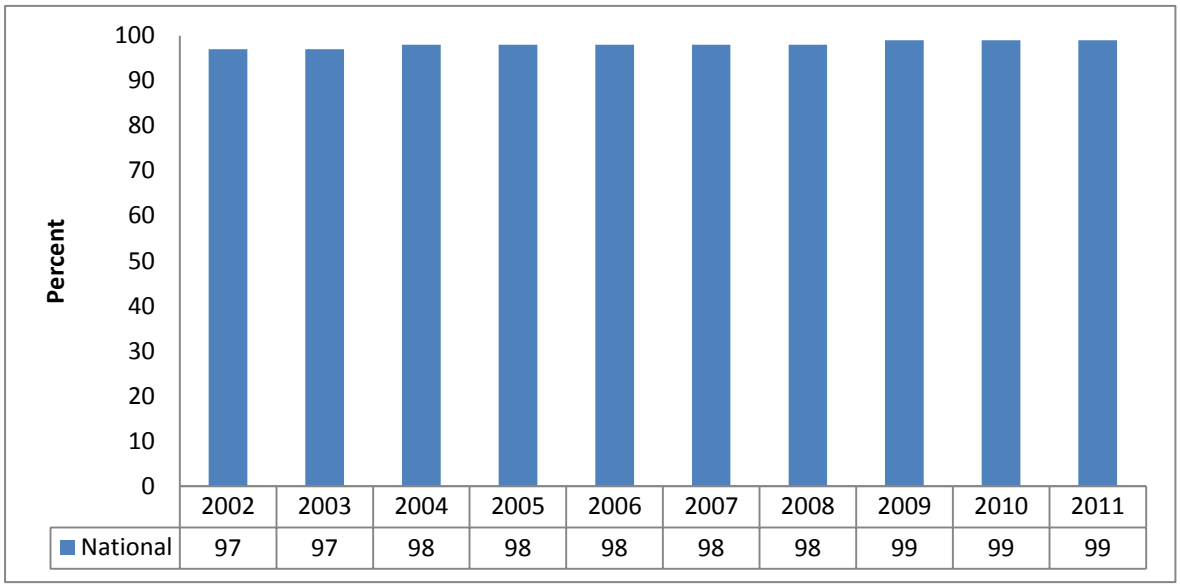
1.1.3 Adjusted Net Enrolment Rate in Primary Education

The Adjusted Net Enrolment Rate (ANER) is defined as "The total number of learners of the official primary school age group who are enrolled at primary education levels, expressed as a percentage of the corresponding population". Put simply, ANER indicates the extent to which the appropriate school going age is enrolled in schools.

In South Africa, since 2004, there has been a dual age-grade norm, with primary schools catering for learners between the ages of 6 or 7 and 12 or 13 years (DBE, 2009). For this report 7 to 13 years is used as the appropriate age for primary schooling because the South African Schools Act of 1996 and the Action Plan to 2014 prescribe that children aged 7 to 15 years should attend compulsory education, that is, Grade 1 to Grade 9 and most of the learners still enrol for Grade 1 in the year in which they turn 7.

According to the General Household Survey (GHS) conducted by Statistics (Stats) SA, in 2011, 99% (Figure 5) of 7 to 13 year old children attended primary schooling. The target of 99% by 2014 has been reached. The ANER was considerably high in 2002 already but between 2002 (96.7%) and 2011 (99%) a further increase of 2% (Figure 5) was observed. It is clear that all the policies implemented by the Department of Education has been very successful in ensuring that all children have access to primary education even with the rural areas in South Africa.

Figure 5: Adjusted National Net Enrolment Rate in Primary Education



Source: General Household Survey, Statistics South Africa (2011)

1.1.4 ANER by provinces

Table 1shows the ANER by provinces from 2002 to 2011. The pattern across the provinces is very similar to that at a National level over time with the Northern Cape and KwaZulu-Natal showing the most improvement from 95% in 2002 to 99% in 2011 (Table 1). The Western Cape has obtained 100% participation rate meaning that all children of school going age are attending school. In all the remaining provinces 99% of children are in school with only 1% being unaccounted for (Table 1).

Table 1: Adjusted Net Enrolment Rate (ANER) in Primary Education by Province

Province	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Eastern Cape	96	96	97	98	98	98	98	99	99	99
Free State	98	97	97	99	99	99	98	99	99	99
Gauteng	98	99	99	99	99	98	99	99	99	99
KwaZulu-Natal	95	97	97	98	97	98	98	99	99	99
Limpopo	98	98	99	99	99	99	98	99	99	99
Mpumalanga	98	98	99	98	98	98	98	99	99	99
North West	96	97	98	95	96	98	97	98	98	99
Northern Cape	95	96	98	98	99	99	98	99	99	99
Western Cape	98	98	99	99	99	99	98	99	100	98
South Africa	97	97	98	98	98	98	98	99	99	99

Source: General Household Survey, Statistics South Africa (2002-2011)

1.1.5 ANER by gender

As indicated already, universal access for learners in the primary school level is not a problem as 99% of the learners of the appropriate age group are in school. However, there are more females enrolled in the primary schooling level than males. The difference is not and has not been much during the period under review. Currently, the difference is less than 1% (Table 2). In 2002 it was about 2%. In 2011 there were 98.9% boys and 99.2% girls in school.

Compared to 2002, there is an increase in the enrolments from 96.5% to 98.9% and 96.8% to 99.2% for both boys and girls and in that order (Table 2). Between 2002 and 2011 the national average enrolment rates rose from 96.7% and 99% for boys and girls respectively.

Table 2: Adjusted Net Enrolment Rate in Primary Education by Gender

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Male	96.5	97.0	97.8	97.9	98.0	98.1	98.0	98.8	99.0	98.9
Female	96.8	97.9	98.5	98.2	98.4	98.8	98.3	99.0	99.1	99.2
National	96.7	97.4	98.2	98.1	98.2	98.5	98.1	98.9	99.1	99.0

Source: General Household Survey, Statistics South Africa (2011)

1.2 Summary of ECD and Primary Education

Currently, not all the learners who enrol in Grade 1 have participated in Grade R or ECD programmes. The number of children who do not participate in Grade R is increased because some children attend Grade R in centres providing ECD programmes and consequently, are not captured by DBE as having attended Grade R. However, not all age appropriate children are enrolled in ECD centres. There are factors that continue to impede the process of ensuring that all children have access to an ECD facility despite the solid policy framework. These include distances travelled from home to the ECD facilities because one may not exist in the community, costs of attending these facilities, (Hall, 2010) because transport at this point is only provided for learners attending the schooling sector.

There are some concerns regarding the implementation of ECD policies. There are many private institutions that provide ECD to children between the ages of 0 and 6 which in some cases include the Grade R year. Different government departments avail funding opportunities to these private institutions to assist in registering new ECD centres and we are not sure if they all know how they can access the funding. For example, funding for ECD from the Department of Social Development has increased between 2003/2004 to 2011/2012 and is currently at more than a billion rand. But there seems to be lack of coordination with regards to the implementation of the policies. The involvement of multiple government departments make it difficult to keep the database of the centres and to keep track of what services are provided by whom and where. Related to this problem of coordination is the fact that many ECD centres are not registered with the sponsoring government departments and are unable to apply for needed funding even though it is available. Therefore, implementation of the policies needs to be closely monitored and improved where necessary, currently it is not well coordinated.

One of the high level achievements of ECD and Grade R was increased access to provision. The Grade R provision has seen some positive light over the past twenty years. However, attaining universal access by 2014 seems to be a challenge. It seems unlikely that 100% for all age appropriate children will be enrolled in Grade R. Therefore it is very doubtful that this target will be met. However, it is worth noting that the Department of Basic Education has made great strides in creating an enabling environment, for Grade R participation, by ensuring that all public primary schools offer Grade R to children before entry into Grade 1. In addition it has developed favourable funding policies.

One way of improving participation is that government departments like Social Development and Basic Education include social partners when undertaking awareness raising campaigns especially in rural areas. For example the available ECD funding opportunities, especially the issue of subsidy for eligible learners needs to be given more prominence so that communities are aware of the possibilities that exist.

With respect to universal primary education; South Africa is on track with meeting this universal Millennium Development Goal. At the moment 99% of the age appropriate learners participate in primary schooling. By increasing the Education budget and implementing

relevant policies between the period 1994 and 2012 it was possible for the Department of Basic Education to meet this mandate.

1.3 Enrolment in Post-School education

The Department of Higher Education and Training's (DHET) Strategic Plan for Higher Education and Training 2010-2015, expressed the importance of tertiary education since of it links to the government's development agenda. The NDP regards tertiary education as the apex of the national education, training and innovation system. In Chapter 9 of the NDP for the Post-school sector it is stated that the system must be characterized by efficiency, higher participation and graduation and throughput rates instead of the current challenges it faces that include low participation rates and high attrition rates.

The shape of the South African higher education and training system is an inverted pyramid with a greatly expanded HE sector (Cloete, 2009). The Green Paper for Post-School Education (PSE) (DHET, 2012) is meant to reverse this trend and by 2030 to have a greatly expanded college sector and a moderately enlarged university sector. As stated in the Green Paper for PSE the target set for 2030 is to have a participation rate of approximately 60% of young people in colleges or other post-school institutions and more than 20% in HE. For the immediate, the Minister of Higher Education and Training wants university enrolments to grow to 935,712 by 2013. This would help with catering for the 2,781,185 youth (18-24 year olds) who are not in education, employment or training.

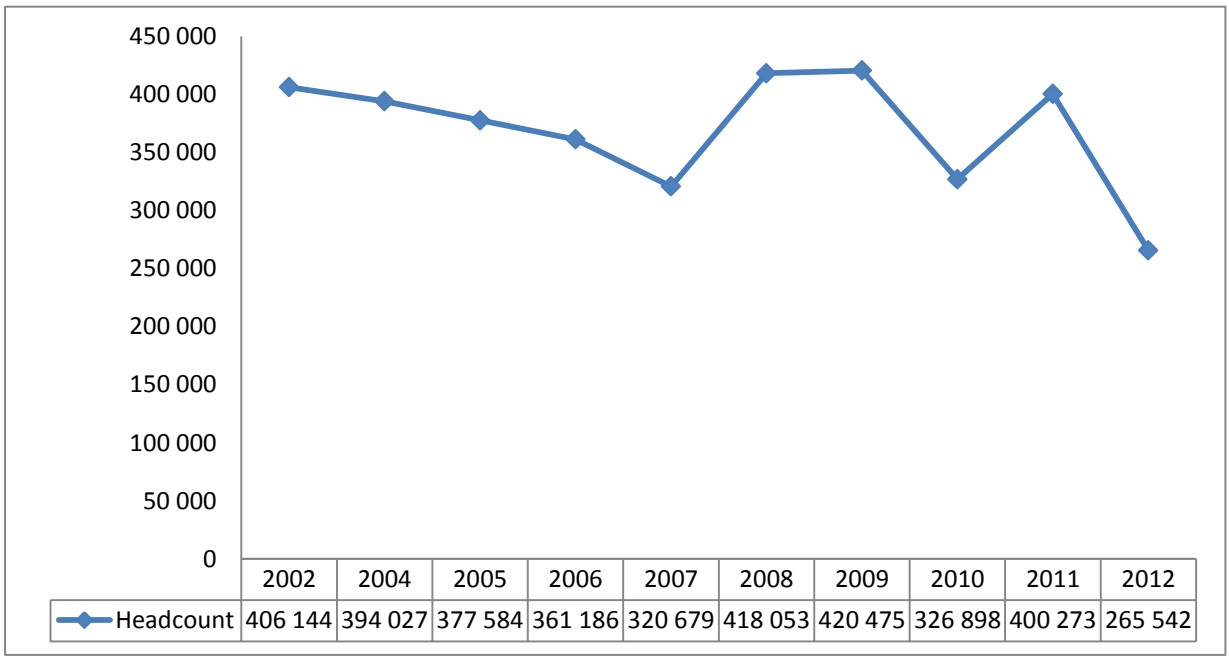
The targets set for compulsory schooling are very different to those set for the post-schooling sector, in that for basic education the target is 100% access for all children. The post–schooling sector and in particular Higher Education (HE) the target is ensuring that 20% of learners who successfully complete grade 12 have access to tertiary institutions.

1.3.1 Further Education and Training (2011-2012)

Most youth who qualify for post-school education tend to put more value on higher education (HE) and seek to pursue university education. Consequently, this has caused the total higher education enrolment in public and private universities to grow to 938,201 (Figure 6). The sorely needed middle level skills in technical and vocational education are struggling with 404,849 enrolments. The HE sector is taking much more enrolments strain than it should and this leaves the FET sector with much fewer students than there should be. The target, as stated in the National Plan for FET, is that 1 million youth and adults must be registered in the FET system by 2014.

Figure 6 shows a decrease in the number of individuals registered in FET colleges from 406 144 in 2002 to 361 186 in 2007. After 2007 the enrolment numbers become very erratic and very difficult to predict what the outcome would be by 2014. It is however clear from Figure 6 that by 2012 only 265 542 individuals were registered at an FET college and considering the 2014 target; South Africa will not be able to meet this.

Figure 6: Headcount of Youth and Adults in Public FET Colleges

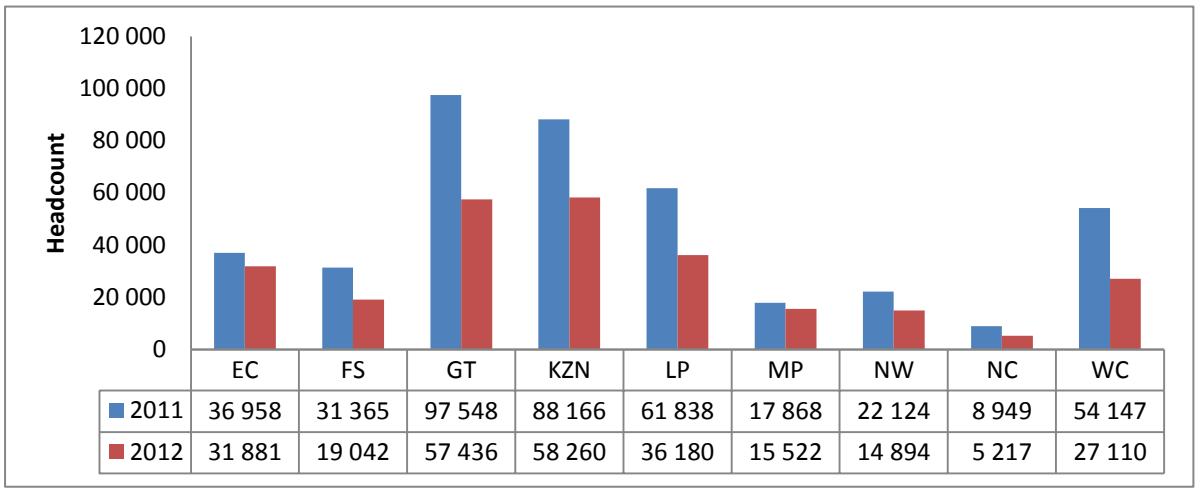


	2002	2004	2005	2006	2007	2008	2009	2010	2011	2012
Headcount	406 144	394 027	377 584	361 186	320 679	418 053	420 475	326 898	400 273	265 542

Sources: Powell and Hall, 2004; DoE, 2005, 2006, 2007, 2008, 2009; HSRC FET audit, 2010; Public FET Annual survey database 2011; Weekly Enrolment Monitoring 2012

Figure 7 shows the provincial distribution of the headcount for the years 2011 and 2012. Across all provinces a decrease in the number of individuals enrolled in FET colleges is evident. The largest differences are found in Gauteng (GT), KwaZulu-Natal (KZN), Limpopo (LP) and the Western Cape (WC). These are also the provinces having the most individuals' enrolled FET programmes.

Figure 7: Headcount in Public FET Colleges (2011 and 2012)



	EC	FS	GT	KZN	LP	MP	NW	NC	WC
2011	36 958	31 365	97 548	88 166	61 838	17 868	22 124	8 949	54 147
2012	31 881	19 042	57 436	58 260	36 180	15 522	14 894	5 217	27 110

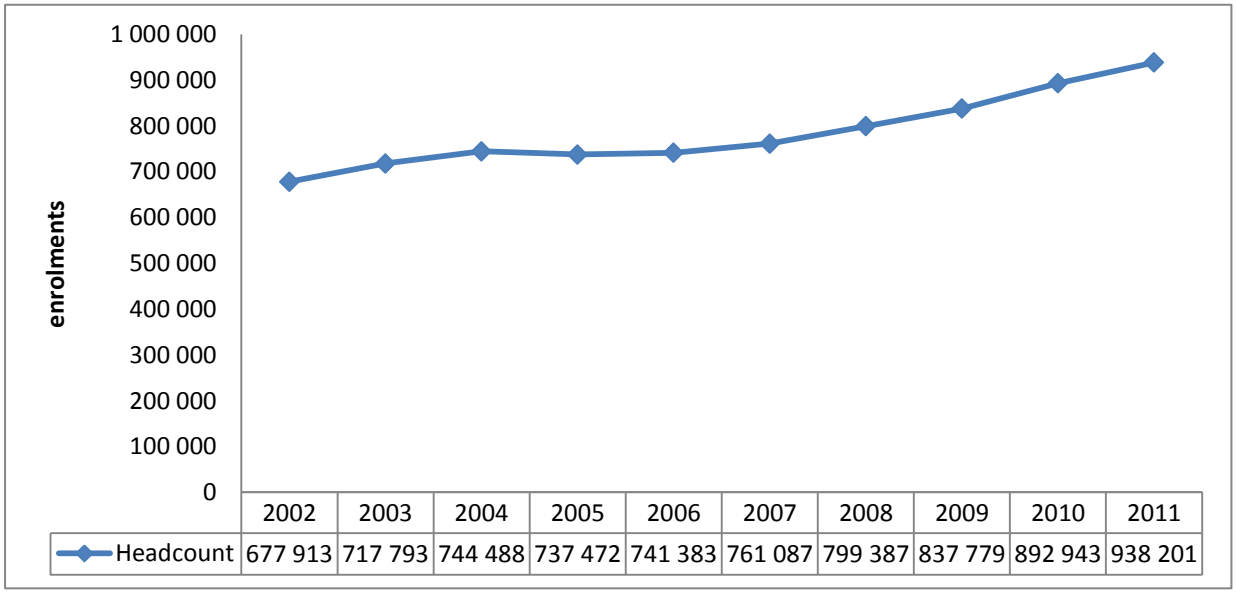
Source: Public FET annual survey database 2011, Department of Higher Education and Training

1.3.2 Gross Enrolment rate in Higher Education

Post-apartheid South Africa has inherited a post-school education system (PSE) with traditional universities, universities of technology and FET colleges. Colleges represent a viable route through which those who do not go to university could gain an alternative qualification. The aim of the National Plan for Higher Education (2001), among other issues is to increase participation in Higher Education for the 18-24 year old cohorts to 20%. Expanding student numbers and improving access to Higher Education (HE) for the previously disadvantaged and females are also seen as key to overcoming the inequalities inherited from apartheid, creating a stable society, and producing necessary and critical skills to drive economic growth.

Figure 8 provides the headcount enrolments in Higher education institutions from 2002 to 2011. The data shows an increase in enrolments from 2002 with 677 913 candidates to 938 201 in 2011.

Figure 8: Gross Enrolment in Higher Education (2002- 2011)

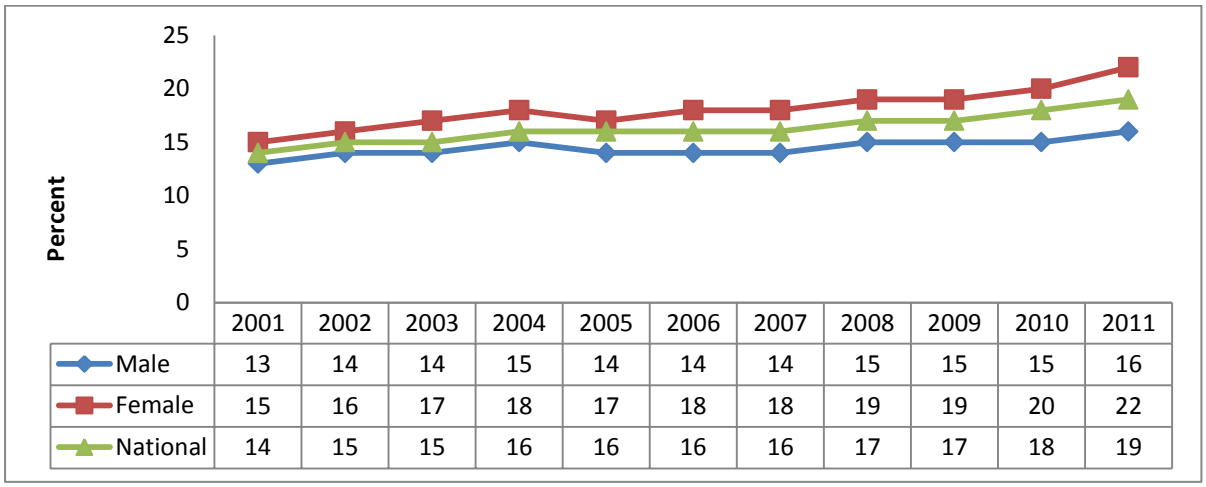


	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Headcount	677 913	717 793	744 488	737 472	741 383	761 087	799 387	837 779	892 943	938 201

Source: HEMIS 2002 to 2011, Department of Higher Education and Training

With the target being 20% enrolment rate in HE by 2014, it is clear from Figure 9, that with 19% of youth already in HE, by 2011, South Africa is set to meet the national target. The national average shows a consistent increase of approximately 5% from 2001 to 2011, however when comparing males and females a slightly different scenario is observed. Figure 5 shows an increase of 2% and 3% between 2001 and 2004 for males and females respectively. In 2005 however a decrease of approximately 1% is observed for both males and females with a constant increase from 2006 to 2011. Over the ten year period 2001 to 2011, females made more gains than males as they improved their participation rate by 7 % from 15% to 22% (Figure 9) compared to the 3% gains observed by males.

Figure 9: Gross Enrolment Rate in Higher Education by Gender



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Male	13	14	14	15	14	14	14	15	15	15	16
Female	15	16	17	18	17	18	18	19	19	20	22
National	14	15	15	16	16	16	16	17	17	18	19

Source: General Household Survey, Statistics South Africa (2011)

1.3.3 Adult Education and Training in 2011

Prior to 2000 AET was referred to as Adult Basic Education and Training (ABET). It was established to rectify inequalities created during the apartheid era. AET provided large majorities of individuals' access to a basic education where the emphasis was on literacy. After 2000 however the government recognised that these individual had a right to lifelong learning and hence AET was introduced so that individuals were able to access FET colleges to pursuit careers.

The Adult Education and Training Act, 2000 (Act No. 52 of 2000) states that the Department of Higher Education and Training (DHET) will "provide for the establishment of public and private adult learning centres, funding for AET, the governance of public centres, as well as for quality assurance mechanisms for the sector." The AET programme consists of four levels where the fourth level is equivalent to a grade 12 certificate. The strategic plan also states that a target 300 000 individuals must be enrolled in an AET institution by 2014 (DHET, 2012).

Table 3provides the headcount as well as the relevant percentages by population group. This analysis compares 2010 to 2011 and it is clear that distribution for 2010 is very similar to that of 2011 across each of the population groups. The population groups represented the most in AET institutions across years are Black African, from 194 459 in 2010 to 198 221 in 2011, This followed by Coloureds with 13 403 in 2010 to 15 268 in 2011. The remaining race groups are very poorly represented with at most 300 individuals. Table 5 shows that an increase of approximately 6000 individuals between 2010 and 2011. If the AET programme increased by approximately 6000 individuals annually then by 2014 a total of 238 236 individuals will be enrolled in an AET programme. This would mean that by 2014 only 79% of the target of 300 000 would have been met.

Table 3: Headcount of Adult Education and Training by Population Group, (2011 and 2012)

Population group	2010	2011
Black African	194 459	198 221
Coloured	13 403	15 268
White	232	292
Indian	187	220
Other	109	235
Total	208 390	214 236

Source: AET Annual Survey 2011, Department of Higher Education and Training

1.4 Summary of Post Schooling Sector

South Africa is still experiencing some severe problems in terms of participation in the Post-Schooling sector especially with regard to the FET and the AET sectors. The results show that Higher Education is overstretched and is the only sector set to meet the target of 20% enrolment by 2014. The goal for the FET sector of a million enrolments by 2014 seems far out of reach. This is of grave concern considering the large number of young adults in South Africa who are not in education and not in employment as well as the skills demand experienced in the labour market. The post-school sector as mandated by the NDP needs to ensure that there is a match between skills demand and supply.

An even more problematic sector is that of the Adult Education and Training. The Government recognises that the sector is under developed and not formalised enough and that collecting accurate data is very difficult. It is clear from the data presented that AET centres are attended predominately by Black African and Coloured population groups with less than a half a percent represented by the other population groups.

2. Efficiency indicators

The term efficiency is borrowed from economists and is defined as the optimal relationship between inputs and outputs (UNESCO, 1998). Economic efficiency is a general term for the value assigned to a situation by some measure designed to reduce the amount of waste or "friction" or other undesirable economic features present.

An education system is said to be efficient if maximum output is obtained from a given input, or if a given output is obtained with minimum possible input. Two central questions are investigated in order to assess the internal efficiency of an education system (Göttelman, 2001).

- To what extent do those entering the education system actually complete their studies and graduate and how are they progressing within the system?
- How many resources are spent on the production of graduates?

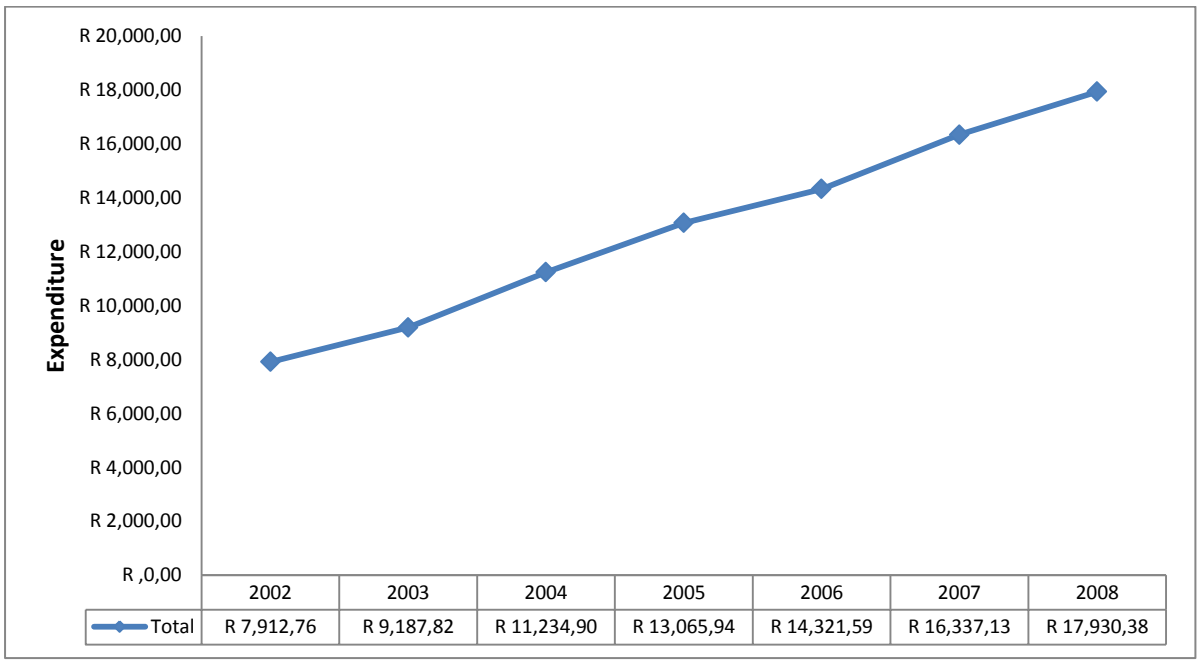
Such an approach has obvious limits: it does not, for example, assess the educational career of candidates in terms of their own costs and benefits; nor does it indicate the causes of the 'inefficiencies' identified (Göttelman, 2001). However, such analyses of efficiency have the merit of drawing the attention of education decision-makers to possible problems or dysfunctions at particular levels of the system.

2.1 Expenditure on Basic Education per Learner

Expenditure on Basic Education per Learner refers to the total budget for basic education divided by total number of learners in public schools. Figure 10 provides the Expenditure on Basic Education per Learner for the years 2002 to 2008. In 2002 Expenditure on Basic Education per Learner was R7 912.20 and increased to R17 930.00 in 2008 an increase of 127%. Since 2002 the annual increase in the Expenditure on Basic Education per Learner was 10% or higher with the biggest increase from 2003 to 2004 by 22%.

According to the DBE Annual Performance Report 2012-2013 (DBE, 2012) public spending on primary plus secondary schooling as a proportion of GNP in South Africa compares well to what occurs elsewhere. In South Africa the figure is 4%, against an average of 3.1% for developing countries and 2.9% in sub-Saharan Africa. Absolute spending per learner is also good in South Africa by international standards. At the primary level around US$ 1,383 is spent per enrolled learner, against US$ 167 in sub-Saharan Africa and US$ 614 in Latin America. Similarly, large differences are seen at the secondary level, where the figures are US$ 1,726, US$ 376 and US$ 594 for South Africa, sub-Saharan Africa and Latin America respectively.

Figure 10: Expenditure on Basic Education per Learner (2002-2008)



	2002	2003	2004	2005	2006	2007	2008
Total	R 7,912,76	R 9,187,82	R 11,234,90	R 13,065,94	R 14,321,59	R 16,337,13	R 17,930,38

Source: 2002 – 2008, National Treasury,

As of 2010/11, government expenditure on education was the largest single line item in the budget, standing at 20% of the budget and 6% of the GDP. However, international assessment and comparisons indicate that our education outcomes do not mirror the investment levels which prevail in South Africa (DBE, 2012). Given the labour-intensive nature of schooling, the vast majority (78%) of the education budget goes to personnel expenditures, mainly teacher salaries.

The investment in education has resulted in great progress in improving access to education in South Africa over the past 15 years. However, educational outcomes have not always matched the investment. This is illustrated by learner performance, which has been measured in various national, regional and international performance evaluations that include: the National Senior Certificate; the local systemic evaluation, whose key focus is on learner performance and literacy, but which also looks at management capacity, the learning context of learners and the school community, and teacher qualifications; the Southern and Eastern Africa Consortium for Monitoring Educational Quality; and the Trends in International Mathematics and Science Study. South Africa's poor performance in this range of evaluations shows that, despite the notable improvement in access to education, much still needs to be done to improve quality in education. Despite the policy emphasis on education and the significant resources allocated to education, the system is grossly underperforming (Van der Berg 2011).

2.2 Completion Rates

Completion Rates refer to the "proportion of learners who finish a given level of the education system" (DOE, 2009). The indicator is usually calculated as the number of learners promoted from a grade irrespective of the age of the learner, divided by the age specific enrolment numbers (which refers to the number of learners of the correct age group in the grade). Usually approximations are used because actual promotion rates are unknown; this has proven to be highly unreliable and hence the Department of Basic Education, in attempting to determine the completion rates makes use of the Household Survey data.

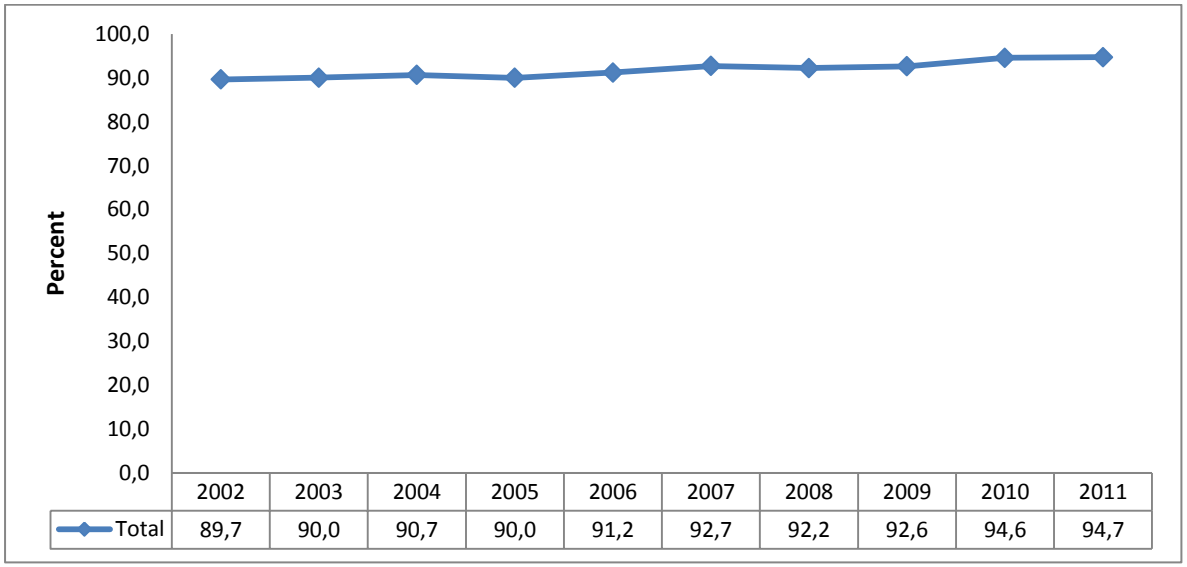
2.2.1 Primary School Completion Rate

The proportion of learners starting Grade 1 who reach Grade 7 may be regarded as a measure that could indicate whether a large number of learners drop out of school before completing primary school. Class repetitions pose a greater threat to completion of primary education (Grade 7) in South Africa, particularly among boys, but the data indicates that the completion rate for Grade 7 and higher increases with age, from 15 to 18 years. This seems to indicate that children in South Africa complete primary schooling at an older age than expected. This is an indication that South Africa could be on the right track to achieving universal primary education by 2015, although some children complete primary education well beyond the recommended age.

Successful completion rate of primary schooling, 94.7% in South Africa (Figure 11), is fairly good by international standards. In 2010 similar countries (upper-middle income) achieved primary completion rates of 98.3%, while middle income countries achieved primary

completion rates of 93.8%. In 2011 the World average and the average primary completion rate for high income countries were 90.3% and 100.3% respectively. The ratio can exceed 100% due to over-aged and under-aged children who enter primary school late/early and/or repeat grades.

Figure 11: Primary School Completion Rate (2002 – 2011)



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total	89,7	90,0	90,7	90,0	91,2	92,7	92,2	92,6	94,6	94,7

Source: General Household Survey, 2009 – 2011, Statistics South Africa,

All provinces showed an increase in the percentage of 18 year olds who have completed the primary phase of the schooling system (Table 4). In 2002 Gauteng had the highest primary completion rate, 96.9% followed by the Western Cape at 93.7%. KwaZulu-Natal and Limpopo were the two other provinces who had primary completion rates higher than 90%. The lowest primary school completion rate in 2002 was in the Northern Cape at 81.1%.

In 2011, all provinces with the exception of the Eastern Cape had primary completion rates exceeding 90%. Gauteng had the highest primary completion rate at approximately 99% indicating that nearly all 18 year olds in the province had completed the primary phase of the schooling system. KwaZulu-Natal, Limpopo and North West were the only other three provinces with a primary completion rate above 95%.

Table 4: Primary School Completion Rate by Province

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Eastern Cape	82.3	79.6	79.3	80.4	81.2	82.4	86.9	84.5	88.2	89.3
Free State	86.2	91.2	90.9	92.9	91.2	94.8	92.5	97.3	96.0	94.3
Gauteng	96.9	95.0	97.0	96.4	96.6	98.8	96.6	97.5	97.4	98.5
KwaZulu-Natal	91.4	92.5	92.7	89.1	93.1	92.7	92.1	92.9	95.8	95.2
Limpopo	90.1	92.0	92.9	91.1	93.6	95.4	93.6	93.9	93.7	96.1
Mpumalanga	83.4	89.5	89.3	92.3	90.9	95.4	95.1	92.7	96.1	94.4
North West	89.0	89.2	90.6	84.7	93.3	90.9	91.4	92.7	91.5	95.7
Northern Cape	81.1	82.8	83.8	90.5	91.2	94.4	86.6	92.7	95.8	90.4
Western Cape	92.7	92.5	92.7	95.9	90.9	94.9	91.1	94.7	98.8	94.4

Source: General Household Survey, 2002 – 2011, Statistics South Africa

Table 5 presents the primary school completion rate for males and females over the period 2002 to 2011. While both male and female primary completion rates have shown a gradual increase over the period in review, the primary completion rate of females have been consistently higher than the male completion rate year on year.

In 2002 the primary completion rate of males was 89.2% and for females 90.1%, and in 2011 the primary completion rates for males and females were 93.4% and 96.1% respectively.

Table 5: Primary School Completion Rate by Gender

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Male	89.2	88.3	89.3	88.7	88.9	90.7	90.1	91.8	93.4	93.4
Female	90.1	91.7	91.9	91.2	93.6	94.7	94.2	93.4	95.8	96.1
Total	89.7	90.0	90.7	90.0	91.2	92.7	92.2	92.6	94.6	94.7

Source: General Household Survey, 2002 – 2011, Statistics South Africa

Table6presents the primary school completion rate by population group over the period 2002 to 2011. The two important findings from the information presented in Table 6 are (a) the primary completion rate for Black African and Coloureds increased, and (b) the primary completion rate for Indian and Whites decreased.

The primary completion rate for Black African and Coloureds were at a lower percentage than the other two population groups and showed gradual change over the period under review even taking into account slight declines between years. In 2002 the completion rate for Indians was 100% and in 2011, 95.8%. During the years 2002, 2003, 2004, 2007 and

2009 the primary completion rate for Indians was 100% while the other years show a lower completion rate.

The primary completion rate for Whites declined slightly from 98.8% in 2002 to 97.4% in 2011 (Table 6). During 2002 to 2007 the completion rates for Whites increased consistently from 98.8% to 100% however the pattern becomes erratic between 2008 and 2011. More analysis needs to be done to understand the fluctuations shown in the primary completion rate over the period 2002 to 2011 specific for Indian and White population groups.

Table 6: Primary School Completion Rate by Population Group

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Black African	88.3	89.1	89.2	88.8	90.1	91.8	91.7	92.0	93.7	94.3
Coloured	93.5	88.2	94.7	93.5	94.5	93.7	90.8	93.3	98.7	97.4
Indian/Asian	100.0	100.0	100.0	92.5	93.1	100.0	97.3	100.0	94.7	95.8
White	98.8	99.5	100.0	100.0	100.0	100.0	98.1	99.3	100.0	97.4

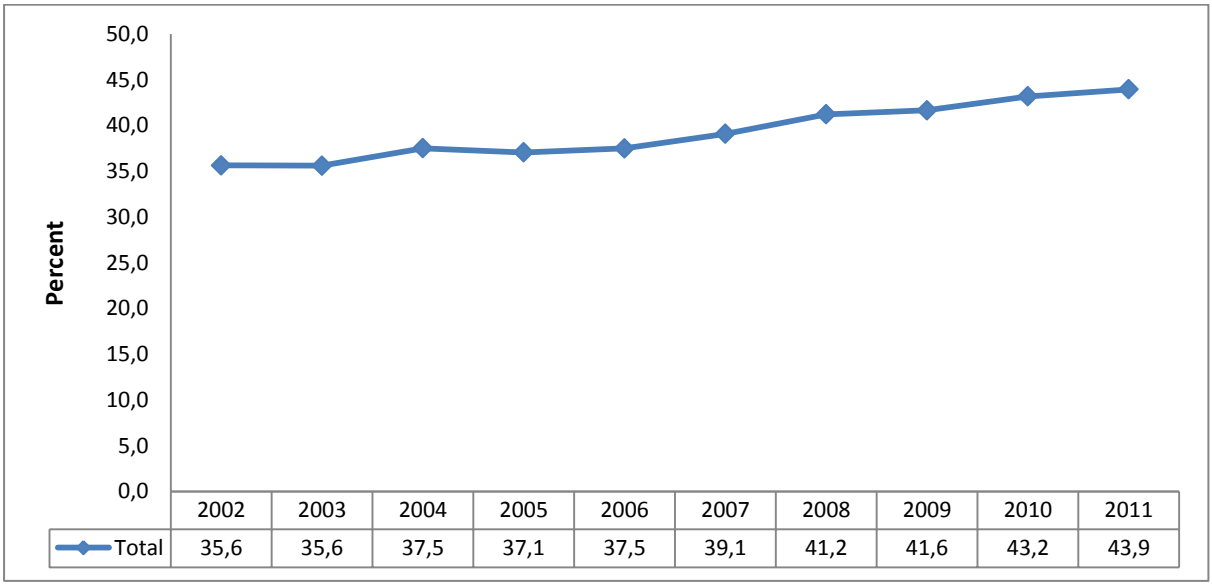
Source: General Household Survey, 2002 – 2011, Statistics South Africa,

2.2.2 Secondary School Completion Rate

The secondary school completion rate refers to the proportion of individuals aged 20 to 24 years of age who have completed Grade 12. This rate is calculated by dividing the number of learners aged 20-24 years who have completed the final grade of secondary school by the total number of children of who are between 20 and 24 years old age.

Successful completion rates of secondary schooling is 43.9% (Figure 12) in South Africa, is not good by international standards. Similar countries achieve upper secondary completion ratios of between 50% and 60%. Within the schooling system, the key challenge appears to be to ensure that more of those who enrol in Grade 12 get to pass Grade 12. With respect to those who do not succeed in passing Grade 12, the question of whether to introduce a General Education Certificate in Grade 9, or widely recognised certificates of successful completion Grades 10 and 11, is a key question. These options are being explored by government as ways of facilitating the transition from school to a post-school institution or the labour market (DBE 2011 Report on Dropout and Learner Strategy). Introduction of the National Senior Certificate Vocational (NC(V)) is another strategy introduced by the DBE to improve the Grade 12 pass rate. However, at the moment learners who enrol in NC(V) are those who did not perform well in the National Senior Certificate. They use this avenue as a fall back option and this is not what this option is intended for.

Figure 12: Secondary School Completion Rate (2002-2011)



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total	35,6	35,6	37,5	37,1	37,5	39,1	41,2	41,6	43,2	43,9

Source: SNAP Survey, 2002 – 2011, Department of Basic Education

All provinces showed an increase in the percentage of 20 to 24 year olds who have completed the secondary phase of the schooling system (Table 7). In 2002 Gauteng had the highest secondary completion rate, 51.6% followed by the Western Cape at 42.6%. The lowest primary school completion rate in 2002 was in the Eastern Cape at 19.2%.In 2011, only Gauteng had a secondary completion rate exceeding 50%. The Free State and KwaZulu-Natal had secondary completion rates close to 50%.

Table 7: Secondary School Completion Rate by Province (2002-2011)

Province	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Eastern Cape	19.2	21.8	20.6	24.1	23.5	27.3	31.3	27.3	28.3	30.8
Free State	36.1	31.0	38.3	36.6	34.5	40.2	41.9	42.1	46.4	48.7
Gauteng	51.6	52.6	55.2	49.7	48.7	50.1	53.7	55.1	58.5	58.6
KwaZulu-Natal	32.4	33.1	36.5	36.2	39.8	41.8	43.7	42.9	45.4	48.6
Limpopo	24.1	24.6	27.7	29.4	28.7	28.6	27.8	28.1	28.1	29.2
Mpumalanga	31.2	29.4	31.6	32.0	34.5	34.4	38.3	38.9	41.8	39.4
North West	36.4	34.0	32.4	34.2	33.9	36.0	32.8	38.2	36.9	35.5
Northern Cape	29.0	28.9	34.3	32.5	32.8	34.5	33.8	33.3	33.0	33.1
Western Cape	42.6	45.7	46.3	44.2	45.4	43.7	45.5	50.6	48.2	46.8

Source: SNAP Survey, 2002 – 2011, Department of Basic Education

Table 8presents the secondary school completion rate for males and females over the period 2002 to 2011. While both male and female primary completion rates have shown an

increase over the period in review, the primary completion rate of females have been consistently higher than the male completion rate year on year.

In 2002 the primary completion rate of males was 34.8% and for females 36.4% (Table 8), and in 2011 the primary completion rates for males and females were 39.8% and 48.1% respectively. The trend suggests that for every 100 children who begin Grade 1, only 50% or less make it to Grade 12.

Table 8: Secondary School Completion Rate by Gender (2002-2011)

Gender	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Male	34.8	36.2	37.1	35.9	37.4	37.1	39.0	37.6	40.1	39.8
Female	36.4	35.1	37.9	38.1	37.5	41.0	43.4	45.7	46.3	48.1
Total	35.6	35.6	37.5	37.1	37.5	39.1	41.2	41.6	43.2	43.9

Source: SNAP Survey, 2002 – 2011, Department of Basic Education

Table 9presents the secondary school completion rate by population group over the period 2002 to 2011. The secondary completion rate shows minor fluctuations within population groups over the 2002 to 2011 period. The two important findings from the information presented in Table 10are that even though the secondary completion rates for all population groups increased from 2002 to 2011, (a) the secondary completion rate for Black African and Coloureds were below 50%, and (b) the secondary completion rate for Indian and Whites were above 80%. The increase in completion rates for Black African, Indian/Asian and Whites started increasing from 2009 to 2011.

From 2002 to 2011 the secondary completion rates of population groups increased by 9.6% for Black African, 2.9% for Coloured, 12.5% for Indian/Asians and 8.5% for Whites. Secondary school completion rates for Coloured youth hardly shows any progression from 2008 to 2011 when taking into account that the improvement for other racial groups over the period under review was 8.5% and higher.

Table 9: Secondary School Completion Rate by Population Group (2002 – 2011)

Population group	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Black African	30.2	30.8	31.8	31.7	32.2	34.2	37.0	36.9	38.7	39.7
Coloured	41.0	37.5	43.5	44.2	45.1	41.8	41.9	45.7	47.2	43.9
Indian /Asian	71.3	69.4	83.1	71.5	73.1	71.9	81.6	83.9	82.2	83.8
White	78.6	77.0	81.1	79.6	79.5	84.7	79.2	83.8	84.8	87.1

Source: SNAP Survey, 2002 – 2011, Department of Basic Education

Findings from a research study by Marteleto, Lam and Ranchhod (2008) analysing data from the Cape Area Panel Study (CAPS)reveal that on average, Coloureds and Africans do not finish high school nor advance to college degrees, while whites progress to university. The authors cite (Lam, Ardington, and Leibbrandt, 2007) who claim that there are also strong differences in rates of grade progression and educational achievement. In this regard, South African youth mirror the old racial hierarchy of the apartheid era. White students get more

schooling and get it faster, get work experience at younger ages, and find employment with higher probability than African youth, with coloured young adults falling in between (Marteleto, Lam and Ranchhod, 2008).

2.2.3 Reasons for the Low Secondary School Completion Rate

The 2011 DBE Macro Indicator report, using data from National Income Dynamics Study, showed the dropout rates in grades 10 and 11 to be 11.5% and 11.8% respectively. The report quotes research by Strassburg et al (2010) and Fleisch et al (2010) which found that dropping out of schools is not a single event but is usually the result of a combination of inter-related factors that lead up to a child eventually dropping out of school. Fleisch et al (2010:7) noted that poverty alone did not explain why children were not in school and identified other factors (such as disability, family structure, i.e., not living with biological parents or grandparents, orphanhood, being eligible for, but not accessing social welfare and living in isolated communities) which, combined with poverty, make children more vulnerable to dropping out of schools.

The DBE General Household Survey Report based on analysis of the General Household Survey of 2011 indicated that "no money for fees" was the main reason for children aged 7 to 18 not attending educational institutions as it was the main reason in 2010. Other reasons for not attending an educational institution include "*pregnancy, illness, failed exam, too old/young, not accepted for enrolment, too busy, school is far, disability, school violence, and lack of transport".*

The report DBE (2011) mentions the relatively high proportion of 7 to 18 year old children who indicated that they are not attending an educational institution because they find education "useless or not interesting" suggests the need to explore more deeply what needs to be done to make education more relevant and more inspiring. This needs further investigation to explore ways and means to address this thinking amongst these children. This could include finding ways to create alternative streams of education.

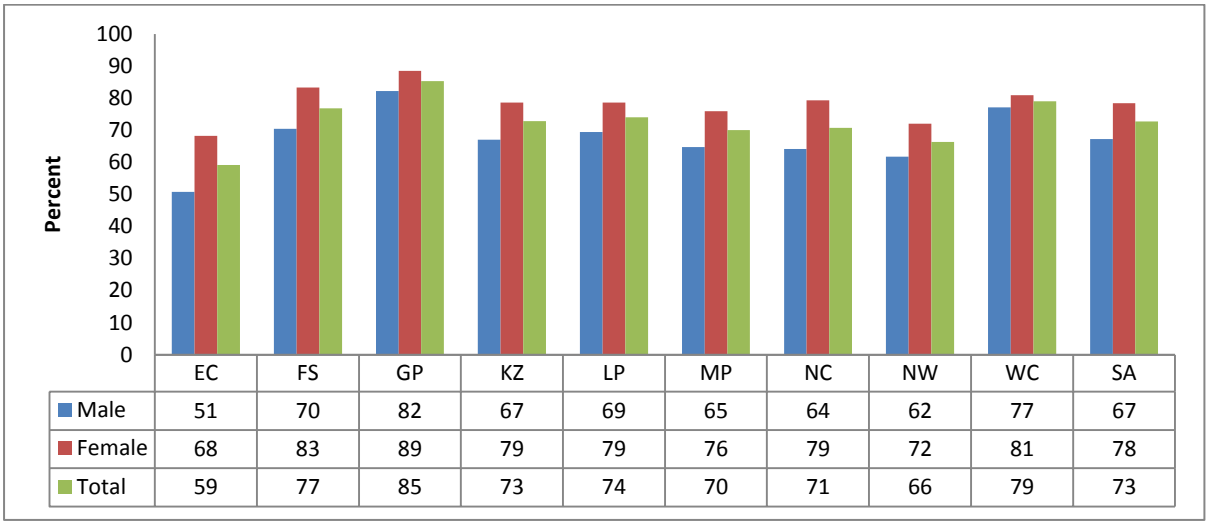
2.3 School Completion Rates of People with Disabilities

2.3.1 Primary School Completion Rate of People with Disabilities

The primary school completion rate of people with disabilities refers to the proportion of disabled learners who finished the primary level or Grade 7 of the education system. In 2011, on average 73% of disabled learners enrolled in schools completed the primary level of education, Figure 13. The highest percentage of disabled learners who completed the primary phase of education was in Gauteng (85%) followed by the Western Cape (79%) and the lowest percentage in the Eastern Cape (59%).

Nationally more females (78%) than males (67%) completed the primary phase of education, a trend recurring in all provinces. Comparatively speaking, this difference which is almost ten percentage points is too high even when compared to the difference between the able bodied males and females.

Figure 13: Primary School Completion Rate of People with Disabilities by Province



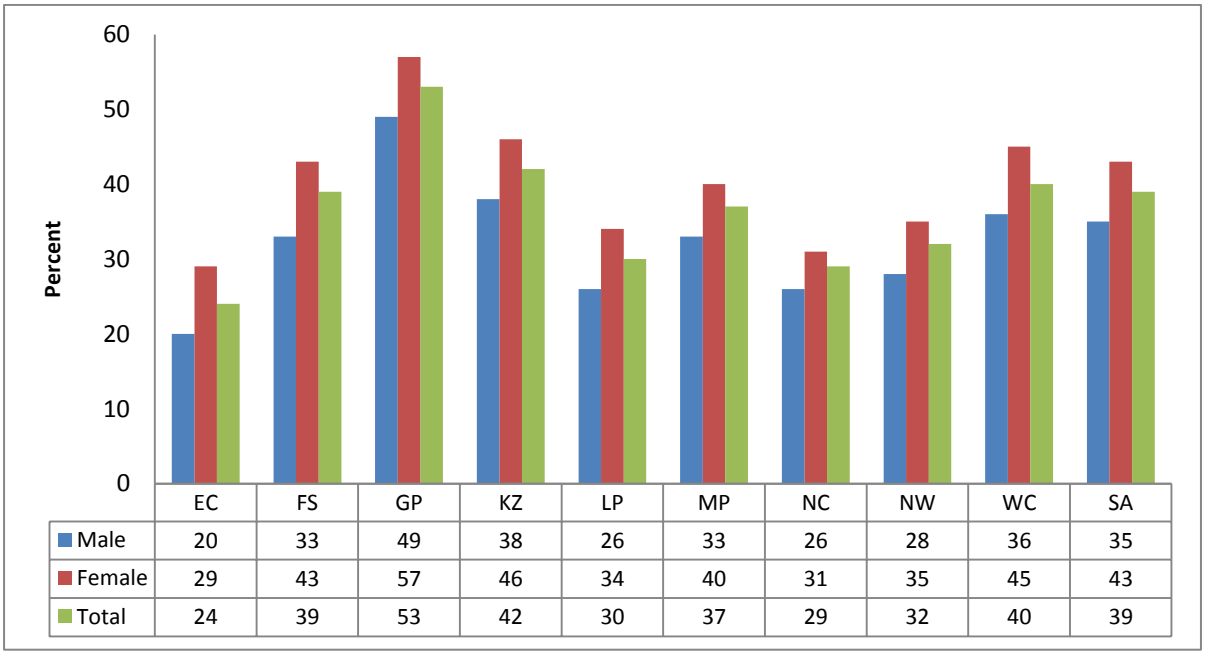
	EC	FS	GP	KZ	LP	MP	NC	NW	WC	SA
Male	51	70	82	67	69	65	64	62	77	67
Female	68	83	89	79	79	76	79	72	81	78
Total	59	77	85	73	74	70	71	66	79	73

Source: Census, 2011, Statistics South Africa

2.3.2 Secondary school completion rate of people with disabilities

The secondary school completion rate of people with disabilities refers to the proportion of disabled learners who finished the secondary school level or Grade 12 of the education system. In 2011, on average 39% of disabled learners enrolled in schools completed the secondary level of education, Figure 14. The highest percentage of disabled learners who completed the secondary phase of education was in Gauteng (53%) followed by KwaZulu-Natal (42%) and the lowest percentage in the Eastern Cape (24%). Nationally, more females (43%) than males (35%) completed the secondary phase of education, a trend recurring in all provinces.

Figure 14: Secondary School Completion Rates of People with Disabilities by Province



	EC	FS	GP	KZ	LP	MP	NC	NW	WC	SA
Male	20	33	49	38	26	33	26	28	36	35
Female	29	43	57	46	34	40	31	35	45	43
Total	24	39	53	42	30	37	29	32	40	39

Source: Census, 2011, Statistics South Africa

2.4 Percentage of Repeaters

UNESCO (1998) defines education wastage as missed opportunities for individuals, communities, entire nations and regions of the world. The phenomenon of primary school wastage is evident in the large number of children who, for one reason or another, do not succeed in acquiring the full range of skills offered through primary schooling. One form of wastage is repetition which involves retention in the same grade or level of study where the normal expectation is either promotion or completion of schooling. Repetition refers to a child that utilises the resources of the same grade for more than one year, or that registers (officially or not) in the same grade level more than once (Gargiulo and Crouch, 1994). A stumbling block in the changed environment of post-apartheid South Africa, with its new opportunities and responsibilities for all citizens that would seem to call for more secondary schooling than in the past, is the "wastage" from having large numbers of students repeat grades and thereby progress at such low rates that they are at risk of dropping out (Fiske and Ladd 2004).

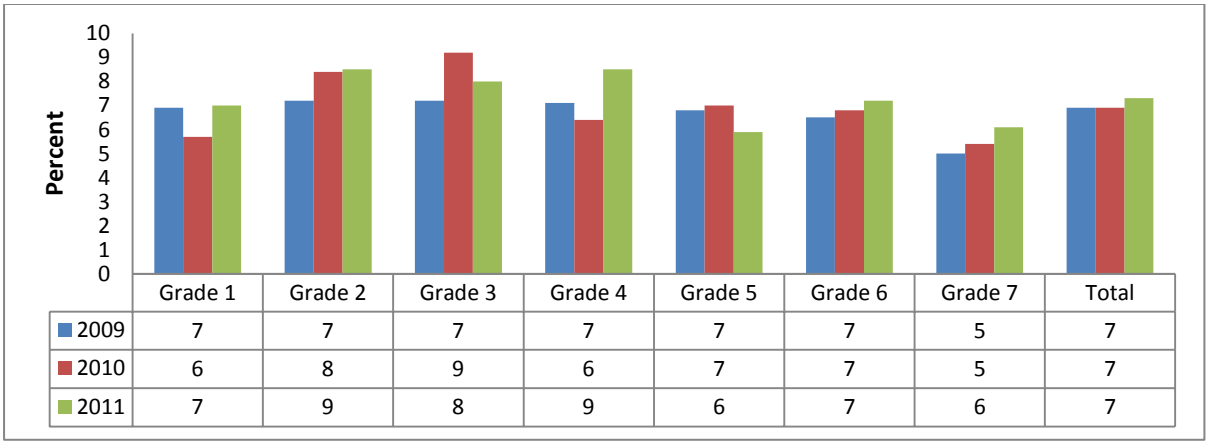
Low repetition rates are normally considered as a good indicator of the effectiveness of an educational system. If these rates are high, this means that a large number of learners have not reached the level of learning achievement which is expected of them.

2.5 Percentage of repeaters in primary education

In 2011, on average 7% of learners enrolled in primary schools were repeating the grade they were in the previous year (Figure 15). The national repetition rate remained constant in 2009 and 2010 but shows a slight increase of less than 1 percentage point from 2010 to 2011. On average the percentage of repeaters in Grades 2, 3 and 4 were slightly higher than percentage of repeaters in the other primary grades (Figure 15).

International comparative information for primary schools for 2007 (UNESCO, 2010:355), shows that South Africa's average level of repetition in primary schools (at 7%), was higher than the average level for developing countries (5%) and for developed countries (less than 1%).

Figure 15: Percentage of Repeaters in Primary Education



	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Total
2009	7	7	7	7	7	7	5	7
2010	6	8	9	6	7	7	5	7
2011	7	9	8	9	6	7	6	7

Source: General Household Survey, 2009 – 2011, Statistics South Africa

2.6 Percentage of repeaters in secondary education

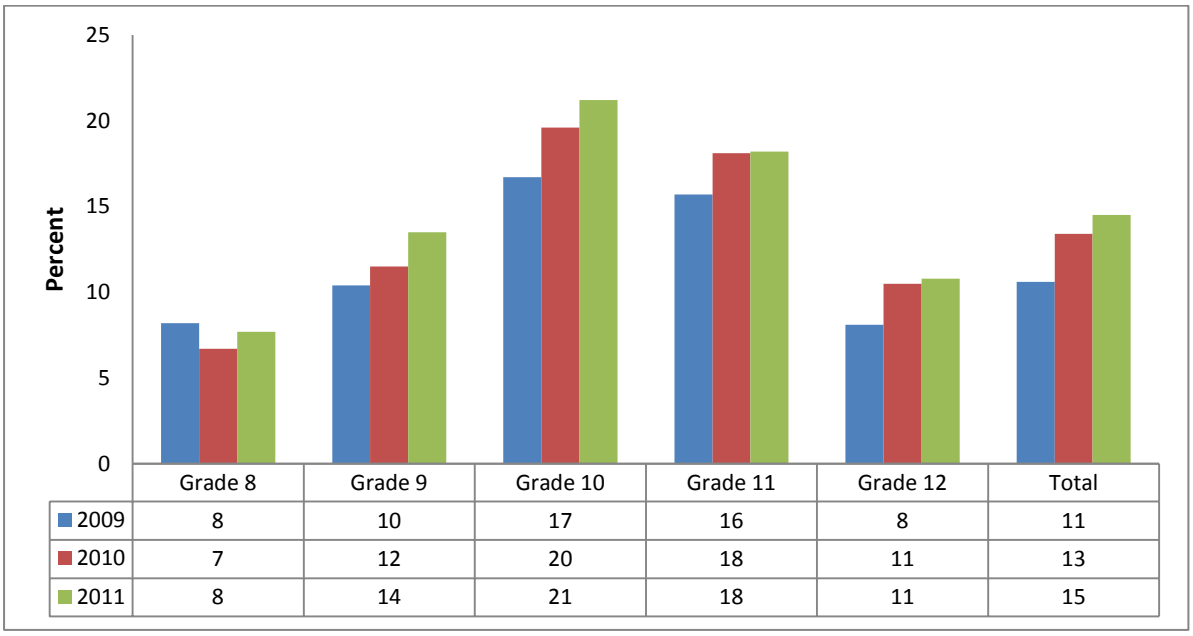
Repetition is much greater in higher grades than in the lower secondary grades. This occurs as a result of teachers in the higher grades trying to deal with learners who have failed to master basic skills in primary school but who have nonetheless progressed from grade to grade (DBE 2011 Report on Dropout and Learner Strategy). The percentage of repeaters in Grades 10 and 11 are particularly high as schools “gate-keep” in an attempt to improve their national senior certificate examination results which are publicly reported in a way that results of earlier grades are not (DBE 2011 Report on Dropout and Learner Strategy). Farista (2004) shows that an analysis of enrolment patterns, drop-out and repetition rates would reveal that while participation rates are generally quite high, it is precisely the previously disadvantaged communities that are impacted on and more prone to ‘failure’ and dropping out.

Crouch (2005) argued that the repetition peak observed in Grade 11 in 1995 was observed as a peak in Grade 10 in 2003, probably as a result of the pressure on the Senior Certificate pass rate. Children appear to be held back just as much as in 1995, but now one grade earlier (Crouch, 2005). Since then the gate-keeping phenomenon is still practised widely at the school level and no control measures have been instituted to curb gate-keeping by school principals.

Figure 16 shows that in 2011, 11% of school learners enrolled in Grade 12, were repeaters. However the actual level of repetition in Grade 12 is likely to be much higher, since large numbers of learners enrol in FET colleges and Adult Education Centres to have a second chance at passing Grade 12.

The percentage of repeaters in Grades 10 and 11 are particularly high attributable to the phenomenon of gate-keeping discussed above. The percentage of repeaters has increased in all secondary grades, except for Grade 8, from 2009 to 2011. The average secondary school repeater rate has increased from 2009 (11%) to 2011 (15%).

Figure 16: Percentage of Repeaters in Secondary Education



	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Total
2009	8	10	17	16	8	11
2010	7	12	20	18	11	13
2011	8	14	21	18	11	15

Source: General Household Survey, 2009 – 2011, Statistics South Africa

3. Indicators of quality

In an education system, input indicators focus on the human, financial and material resources that have been assembled and channelled into educational activities. Such resource inputs are used to organize the provision of educational services in order to create intermediate outputs such as classes and learning activities.

The following input indicators were chosen on the basis of a combination of their relevance for the country with regard to policy, and their importance from an international point of view:

- Teacher qualifications
- Learner: educator ratios
- Learner: school ratios
- Expenditure on Basic Education per Learner
- School infrastructure

Furthermore, financial resources available for education were also analysed because clearly they have an impact on the provision of educators, the physical facilities and equipment, as well as materials for teaching and learning, which ultimately impact on the quality of education provided.

While the connection between these indicators and learning achievement is far from clear, based on international comparisons, financial indicators do carry weight as a barometer of quality in South African policy discussions.

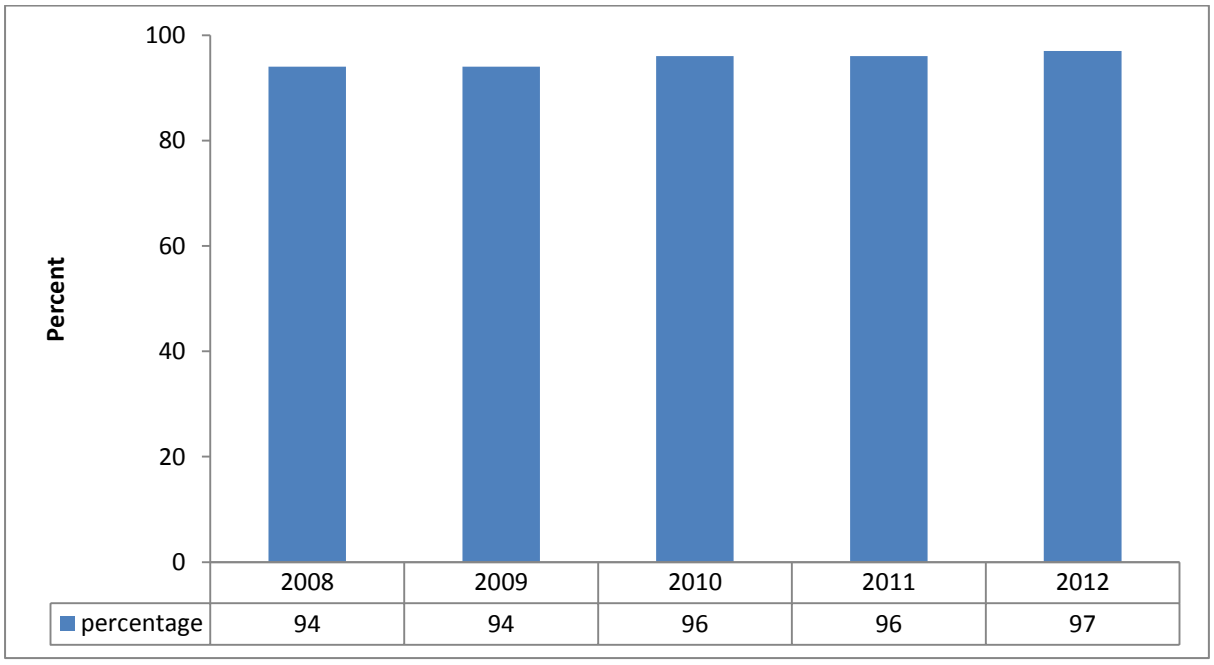
3.1 Teacher Qualifications

According to the Minimum Requirements of Teacher Education Qualifications Policy of 2007, being a teacher follows strictly one of the two ways; completing a four year Bachelor of Education (BEd) degree, or completing an appropriate first degree followed by a one-year Advanced Diploma in Education and registering with the South African Council for Educators. Before 2009 the Postgraduate certificate in education was the standard for qualifying as a teacher and the possibility exists that a policy to this affect will be introduced in the near future.

The debate regarding the quantitative shortage of qualified and competent teachers is documented extensively (DBE & DHET, 2011). But equally acknowledged is the fact that the country has no shortages of qualified teachers and the remaining few who are under-qualified are upgrading to meet the required criteria.

Figure 17 show that 97% of the total number of teachers employed nationally is qualified to teach. It means those who are employed to teach meet the relevant criteria as stipulated in the Minimum Requirements of Teacher Education Qualifications Policy of 2007. This indicator does not refer to teaching quality or teacher's content knowledge or classroom practice or whether teachers teach appropriate subjects (teaches what she is qualified to teach) or teaches out-of-field (teaches another subject outside her qualification).
There has been a gradual improvement in the qualifications of educators since 2008 to 2012. In 2008, 94% of educators had been appropriately qualified, and by 2012 this figure increased to 97% of educators (see Figure 17). This means that by 2012, only 3% of educators were unqualified or under qualified.

Figure 17: Percentage of Qualified Teachers Nationally, 2008 to 2012

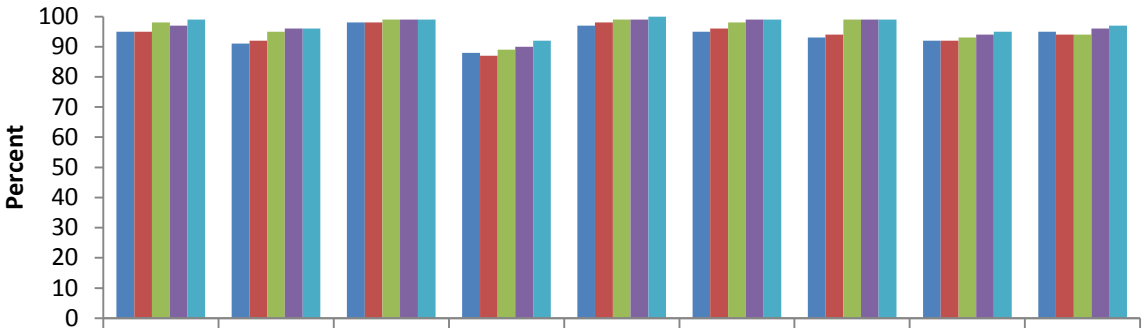


Source: Personnel and Salary System, 2008 – 2012, Department of Basic Education

We inherited a large teacher labour force market from the apartheid education system. As a result, quantitative teacher shortages have never been a big problem nationally. In 2008, 94% of the teacher labour force was qualified to teach. Between 2008 and 2012 there was an increase from a modest 94% of teachers who are qualified to teach to 97% in 2012. Limpopo is the only province whose teachers are all qualified (Figure 18). Following closely to this are the Eastern Cape, Gauteng, North West and Mpumalanga provinces all with 99% qualified teachers. The number of Western Cape teachers who are qualified to teach is equal to the national average which is 97%.

Only three provinces whose averages are below the national average of 97%; these are the Free State, KwaZulu-Natal, and the Northern Cape (Figure 18). KwaZulu-Natal has the least number of qualified teachers at 92% and was been lagging behind even in 2008. Between 2008 and 2009 there was no national increase in the number of qualified teachers. With regards to the provinces, in some cases there were small increases while in some there were small decreases or no changes at all. However, in 2010 there was a significant jump in the national average of 2 percentage points from 94% to 96%. During this same period the North West Province made the most improvement from 94% to 99% (Figure 18). Provinces that are struggling to recruit qualified teachers can investigate how that province managed to make the gains in this period.

Figure 18: Percentages of Qualified Teachers Provincially, 2008 to 2012



	EC	FS	GP	KZN	LP	MP	NW	NC	WC
2008	95	91	98	88	97	95	93	92	95
2009	95	92	98	87	98	96	94	92	94
2010	98	95	99	89	99	98	99	93	94
2011	97	96	99	90	99	99	99	94	96
2012	99	96	99	92	100	99	99	95	97

Source: Personnel and Salary System, 2008 – 2012, Department of Basic Education

According to Darling-Hammond, 2000 there is growing evidence that teacher preparation is a powerful predictor of students' achievement, perhaps even overcoming socioeconomic and language background factors. The TIMSS 2012 report adding on how teacher experience could combine with qualifications in improving learner performance states that higher mathematics and science achievement could be related to teachers' having more teaching experience, being confident in their mathematics teaching, and being satisfied with their careers.

However, the section below discussing national and international assessment results indicates that the high percentage of qualified teachers in South Africa do not seem to have an impact on learner performance/achievement. For example an analysis of TIMSS 2011 teacher and learner results found a dissonance between what teachers say about themselves and the achievements of their students.

The National Education Evaluation and Development Unit (NEEDU) report (NEEDU, 2011), an evaluation of how learners in Grades 1, 2 and 3 are taught found that teaching is so poor, and the children's ability to read so weak, that children are likely to struggle for the rest of their school years. The report found that many teachers did not know how to inculcate problem-solving and analysis skills. Teachers, who do not know and understand how to evaluate, analyse or solve problems when reading could not teach children these skills.
The last few years have seen the accumulation of evidence to indicate that the majority of South African teachers know little more about the subjects which they teach than the curriculum expects of their children, and that some teachers know considerably less than this. The conclusion from the SACMEQ exercise is that the subject knowledge base in both language and mathematics of the majority of South African Grade 6 teachers is inadequate to provide learners with a principled understanding of these foundation disciplines (NEEDU, 2011). There is no reason to believe that Foundation Phase teachers are any better endowed with subject knowledge (NEEDU, 2011).

Continuous professional teacher development (CPTD) is a key aspect to ensuring that education quality is not compromised (DoE, 2007, DBE & DHET, 2011). CPTD is provincial competence and is provincially controlled, just like all issues pertaining to practicing teachers. The government has brought CPTD under teacher education in order to ensure that teachers who participate in such programmes are properly guided about which professional development activities to do, and to make sure they are able to contribute to the improvement of education quality after going through the programme.

CPTD activities are conducted at provincial, regional and district levels. Provinces have public Teacher Development Institutes (TDI) and Education Resource Centres (ERC) as well as privately sponsored ones. These are spaces used for professional development (PD); TDIs are provincial spaces while ERCs are regional spaces. They are staffed and they have resources. The South African Council for Educators (SACE) is the regulatory body responsible for the implementation and management of CPTD and for teachers to practice; they must be registered with SACE.

Service providers who want to conduct professional development of teachers go through SACE. The policy prescribes what developers need to take into cognizance when developing their programmes. According to the policy, not all professional development activities are expected to is NQF credit bearing. Lastly, teachers are monitored if they participate in PD activities or not. There are rewards for participation and punishment for non-participation. There is a body responsible for monitoring teachers' and schools' performance, the National Education Evaluation and Development Unit.

3.2 Learner-to-Educator ratio

The learner-to-educator ratio (LER) is the average number of learners per educator at a specific level of education, or for a specific type of school, in a given school year. The ratio is one of the most common indicators used in planning and used to measure the level of human resource input (teachers). It is believed that low number of learners per teacher indicates learners will have better chance of contact with the teachers and hence better teaching/learning process.

The ratio is calculated by dividing the number of learners by the number of educators for a specific school type (e.g. public schools). It is important to keep in mind that the ratio does not necessarily express the number of learners per teacher. The number of educators may include principals, and other teaching support staff in schools. The department defines 'educators' as "any person who teaches, educates or trains other persons at an education institution or assists in rendering education services, or who renders education auxiliary or support services provided by or in an education department".

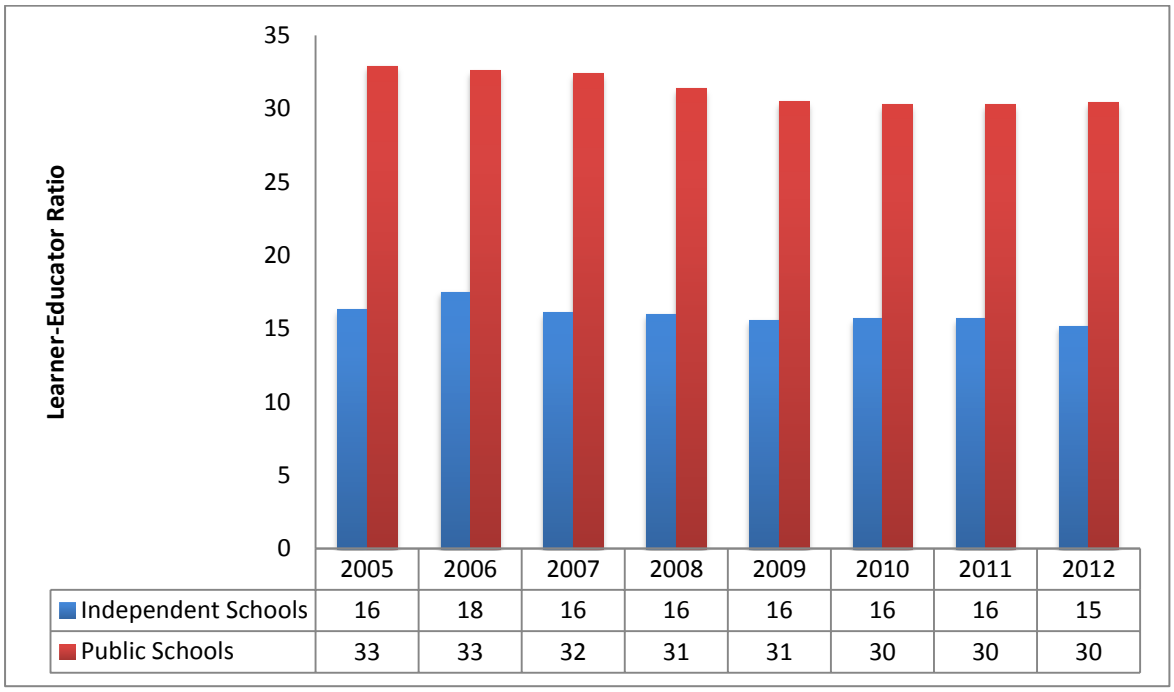
The learner-to-educator ratio contributes directly to the quality of schooling offered. The more crowded the classrooms, the fewer educators are able to give personal attention to learners to help them along in the learning process. Learners in overcrowded classes may find it difficult to follow the lesson, or to ask questions when they do not understand the material taught. In areas of high population density many schools still have large classes, while in many rural schools, especially farm schools, the class sizes are so small that they are combined for multi-grade teaching (DoE, 2006).

Poisson (2002) argued that the creation of multi-grade classes is out of a concern for either giving children in isolated areas access to school and to obtain higher returns from the school system by increasing the learner/teacher ratio. In the context of scarce resources, the use of multi-grade classes makes it possible to reduce the number of teachers and hence the wage bill.

The LER is usually calculated at an aggregate ornational level. It is useful in that it gives a general picture in the number of learners per teacher. However, policy makers should not be satisfied with such an aggregate level indicator. At best, this ratio should be calculated at the district level for it to be useful and informative.

South Africa saw a slight decrease in the LER for ordinary public schools between 2005 and 2012. The average LER in public schools in 2012 was 30:1, down from 33:1 in 2005 (Figure 19). As can be expected, there are huge differences in the learner-to-educator ratio between public and independent (private) schools at a national level. The LER in independent schools is approximately 16:1. The ratio also tends to be higher in primary schools than in secondary schools. According to the DBE Statistical Report (Education Realities 2012) when counting all educators, the LER for ordinary public schools nationally was 30.4, while, when counting only state-paid educators in these schools, the LER increased to 32.3.

Figure 19: National Learner-to-Educator Ratio by school type



	2005	2006	2007	2008	2009	2010	2011	2012
Independent Schools	16	18	16	16	16	16	16	15
Public Schools	33	33	32	31	31	30	30	30

Source: SNAP Survey, 2005 – 2012, Department of Basic Education

The Department has, as a strategic objective, to reduce the class sizes at schools. Funding for this purpose was secured in 2009 and each Provincial Department of Education would have received their equitable share of this funding. This funding provides support to targeted schools in the form of additional posts. Through the reduction of class size, the learner-to-educator ratio will decrease.

Table 10shows the learner-to-educator ratio for public ordinary schools by province and reveals that some provinces have already achieved the 30:1 ratio. Nationally, the country is at 30.4:1 on average. The table shows that some provinces are even better off at a ratio below 30:1.

All provinces experienced a reduction in the LER from 2005 to 2012 with the exception of the North West and the Northern Cape. The LER for the North West and the Northern Cape declined from 2005 to 2009 then slightly increased in 2012 to the same level as in 2005. In 2005, the national average LER in public ordinary schools in the country was 30:1, ranging from 30:1 in the Free State to 34:1 in KwaZulu-Natal, Limpopo and Mpumalanga. In 2012, the national average LER in public ordinary schools in the country was 33:1, ranging from 27:1 in the Free State to 32:1 in the North West.

Table 10: Learner-to-Educator Ratio by Province

Province	2005	2006	2007	2008	2009	2010	2011	2012
Eastern Cape	33	33	33	32	30	30	29	29
Free State	30	30	29	29	28	28	28	27
Gauteng	32	34	33	32	32	31	31	31
KwaZulu-Natal	34	33	33	33	32	31	31	31
Limpopo	34	33	34	31	29	30	30	30
Mpumalanga	34	35	33	32	30	31	31	31
North West	32	30	31	30	30	31	31	32
Northern Cape	31	30	30	30	30	30	30	31
Western Cape	32	32	31	30	30	30	30	31
South Africa	33	33	32	31	31	30	30	30

Source: SNAP Survey, 2005 – 2012, Department of Basic Education

3.3 School Infrastructure

The DBEs Action Plan to 2014 identifies safety in schools as important and goal 24 commits the government to provide an inspiring infrastructure and learning environment. The poor state of buildings and inadequate facilities or facilities that need repair are identified as being some of the factors that lead to teachers and learners not being motivated to teach and learn accordingly. The plan concludes this matter by saying schools must be spacious, safe, well maintained and functional. A recent South African Human Rights Commission report on the right to education highlights that access to education includes non-discrimination, physical accessibility of schools and safety while travelling to school and affordability of education (South African Human Rights Commission, 2012). Access to education is not a problem and the high ANER rate is a testimony to this. However, inequities in the availability of infrastructure and services in schools continue to exist. Programmes have been implemented by the Department of Basic Education to reduce the infrastructure back-log. One such programme was the Accelerated Schools Infrastructure Delivery Initiative (ASIDI, 2013). The mandate of this programme is to improve the state of infrastructure in schools across the county. The programme plans to by 2015replace 496 (Table 11) schools which were built with inappropriate structures (e.g. Mud schools) with brand new schools. A basic level of sanitation will be provided in 868 schools where sanitation did not exist. A total of 878 schools will receive electricity for the first time and finally 1257 schools will be provided with water for the first time.

Table 11: ASIDI Infrastructure plans between 2011 and 2014

Infrastructure Category	Baseline	2011/2012	2012/2013	2013/2014
Inappropriate Structures	496	50	100	346
Water	1257	188	1069	
Electrification	878	164	714	
Sanitation	868	354	514	
Specialist Classrooms			50	

Source: Department Basic Education Standing Committee on Appropriations progress ASIDI

Table 12 shows the progress made since 2011 and it is clear that larger backlogs still exist with only 17 of 49 planned new schools in the Eastern Cape being built. Similar backlogs are experienced for Electricity (137 of 190 schools), Sanitation (190 of 237 schools) as well as access to water (116 of 173 schools).

Table 12: ASIDI Infrastructure progress from 2011 to March 2013

Period	Replacement of inappropriate schools		Electricity connections		Provision of sanitation facilities		Access to water	
	Target	Completed	Target	Completed	Target	Completed	Target	Completed
As at December 2012	10	49	107	190	144	237	102	173
As at March 2013	17	49	134	190	190	237	116	173

Source: Department of Basic Education –ASIDI brief (April 2013, vol 2)

This report focuses on availability of electricity, sanitation, running water and finally fencing of schools at a national level first and then at a provincial level.

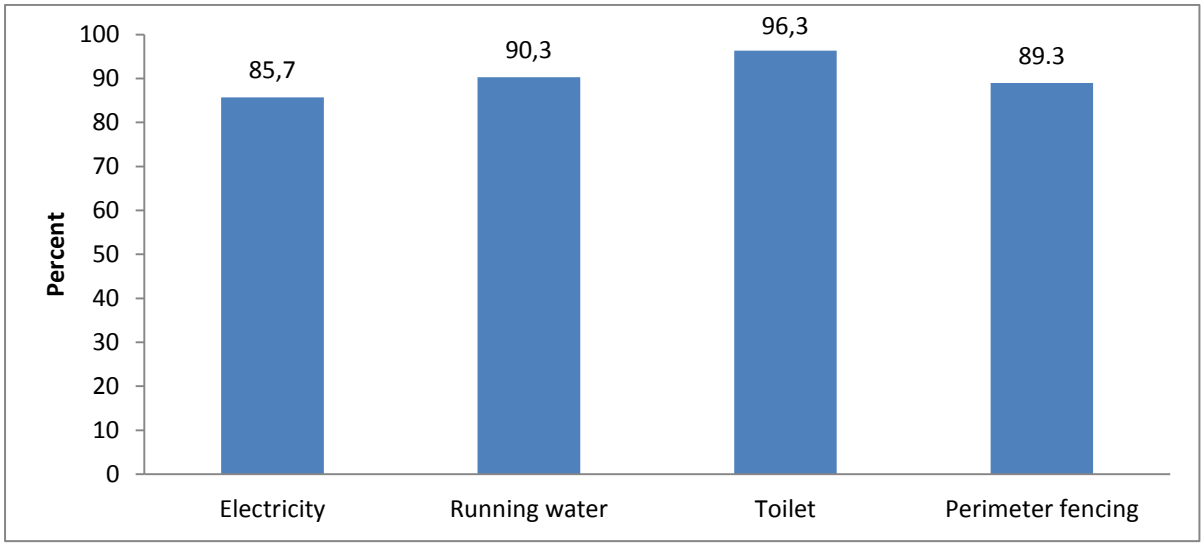
3.3.1 National Infrastructure of schools

According to Figure 20, most schools have the mandated infrastructure to encourage provision of quality education. There are some that have no access to services such as water, electricity, perimeter fencing and sanitation. At a National level 85.7% of schools have access to electricity (Figure 20). The NEIMS 2011 report provides details pertaining to the type of electricity connections available to the schools. According to the report at a national level, of the 21,249 schools with electricity 804 have unreliable electricity supply, 76% of schools have a municipal grid on site, less than 1% use generators and 25% have solar panels on-site (NEIMS, 2011).

In terms of sanitation; six ablution facilities are recognised by NEIMS nl; municipal flush, septic flush, enviro-loo, VIP (pit latrine with ventilation pipe), pit latrine and chemical).

Nationally 96.3% of schools have access to a single or multiple numbers of the 6 mentioned facilities. The majority of schools in South Arica have access to pit latrines (11,450 schools) followed by municipal flush (7,906 schools) (NEIMS, 2011). Figure 20, shows that 90.3% of schools have access to water. Connection to water facilities can occur in a number of ways: a borehole, communal water supply on site, mobile tankers water supply and municipal water supply on site. Even though the data shows that just more than 90% of schools have access to water, it is important to note that 2,563 of these are listed as being unreliable according to the NEIMS 2009 report. The report shows that the majority of schools have access to either municipal water on site or a borehole.

Figure 20: School infrastructure at a National level



Source: National Education Infrastructure Management System (NEIMS) Reports May 2011, Department of Basic Education

3.3.2 Infrastructure by province

When we disaggregate by provinces, we get a picture of which provinces have less access to the services compared to the other. Nationally, sanitation is the highest indicator but the Eastern Cape fall far below the national average of 96% on this indicator as data shows that only 90% of the schools have sanitation (Figure 21). Almost all the schools in Gauteng, Limpopo, Northern Cape and the Western Cape have toilets as these four provinces reported that 99% and more of the schools have toilets. The gap between the Eastern Cape and the next province that has the second least number of toilets is almost five percentage points.

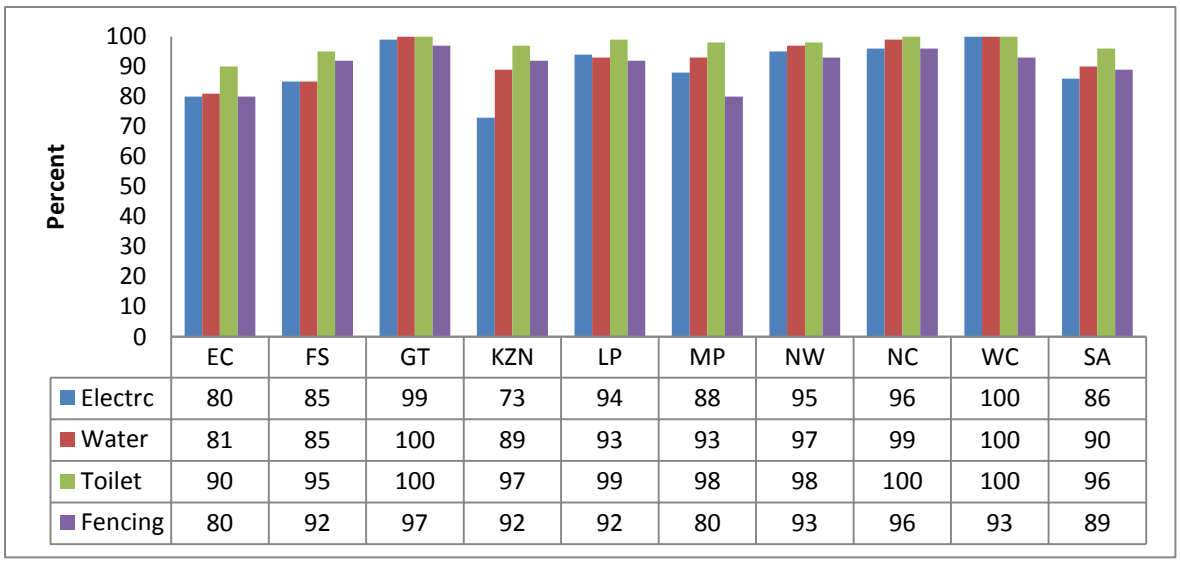
The Western Cape and Gauteng are the only provinces that have running water in 100% of the schools (Figure 21). This is much higher than the national average which is 90% by ten percentage points. The Northern Cape follows the Western Cape very close with 99%. The Eastern Cape trails all the provinces at 81% which is about twenty percentage points lower than the Western Cape. The Free State is second last in this category with water in only 85% of the schools in that province. Three provinces are below the 90% mark, the Eastern

Cape, Free State and KwaZulu-Natal with the last province close to the national average or the 90% mark.

Fencing seems to be a problem even for provinces that do well in the other indicators with a national average of 89% (Figure 21). The Eastern Cape is trailing in this indicator as well and is the only province where only 80% of the schools are fenced. This is almost full ten percentage points lower than the national average. Gauteng, Mpumalanga and Northern Cape provinces are the only three provinces with over 96% of the schools fenced and the rest fall in between 80% and 93%. This is the only indicator out of the four where the Western Cape falls below the 100% mark as only 93% of the schools are reported as fenced.

Just like fencing, electricity is another area that seems to need close attention, nationally. It is only in two provinces that more than 99% of the schools are electrified, Gauteng and Western Cape (Figure 21). This time KwaZulu-Natal is lagging behind with only 73% of the schools electrified. Three provinces fall below the 86% mark, KwaZulu-Natal, Eastern Cape and the Free State even though the Free State is almost equal to the national average of 86% as it stands at 85%. It is only in five of the nine provinces that there are 90% and more schools with electricity.

Figure 21: Availability of Water, Sanitation, Fencing, and Electricity by Province



	EC	FS	GT	KZN	LP	MP	NW	NC	WC	SA
Electrc	80	85	99	73	94	88	95	96	100	86
Water	81	85	100	89	93	93	97	99	100	90
Toilet	90	95	100	97	99	98	98	100	100	96
Fencing	80	92	97	92	92	80	93	96	93	89

Source: National Education Infrastructure Management System (NEIMS) Reports May 2011, Department of Basic Education

3.3.3 Infrastructure summary

Despite the emphasis placed on the provisioning of safe and functional schools the country is lagging behind some of the key indicators in this area and it is unlikely that this goal will be met by 2014 as per the DBE's Action Plan and Delivery Agreement. Statistics that provide an accurate measure of progress in these indicators are not easily available and even

though at a national level it seems that South Africa is doing well; when disaggregating by variables like province the picture becomes less positive. Indicators that would need to be considered in future are issues around mud and farm schools and the fact that according to news reports learners are still taught under trees. Even though the media reports these figures to be alarming it becomes difficult to prove or disprove when scientific data is not available.

It is clear from the analysis done that in terms of sanitation the goal of 100% will be reached but important to note that the majority of South African schools use pit latrines without ventilation pipe. The NEIMS 2009 report shows that the Eastern Cape (562 schools) has the highest number of schools across all provinces with no sanitation facilities available (NEIMS, 2009) where the national total is 970 schools.

The implementation of ASIDI is a positive step by the Department of Basic Education in the right direction but without efficient information management systems tracking progress will be very difficult.

4. Outcome indicators

Outcome indicators are used to evaluate the end results of all the educational inputs and processes. These indicators measure how effectively education policies and strategies were implemented by measuring actual progress against the goals and targets that were set in education plans. At the end of the school year, the percentages of students who successfully completed their studies, and of those who have acquired defined knowledge and competencies, indicate the main output of education. Examples of outcome indicators in this section include national and international assessment studies such as the National Senior Certificate Examinations, the 2012 Annual National Assessment, and the 2011 Trends in Mathematics and Science Study. The report also explores the literacy rate as yet another indicator that could be used to measure the extent to which knowledge and competencies have been acquired. The following two categories of literacy are covered in this report:

- Youth literacy (persons aged 15 to 24)
- Adult literacy (persons aged 20 and above)

4.1 Annual National Assessment

The purpose of International Assessments or international studies such as TIMSS, PISA and PIRLS is to evaluate education systems worldwide every three or four years by assessing Grade 4 learners, Grade 8 learners or 15-year-olds' competencies in the key subjects: reading, mathematics and science (depending on the nature of the international study). The purpose of ANA is to track learner performance each year in Literacy and Numeracy and Languages and Mathematics as the DBE works towards the goal of improving learner performance in line with commitments made by government. The ANA results will be used to monitor progress, guide planning and the distribution of resources to help improve Literacy/Language and

Numeracy/Mathematics knowledge and skills of learners in the Grades concerned (DBE, ANA 2012)

The Department of Basic Education introduced the Annual National Assessment (ANA) to measure the improvement of the quality and levels of educational outcomes in the schooling system. ANA measures progress against the targets set by the President of South Africa in his 2009 State of the Nation address, which is that by 2014, 60% of learners in Grades 3, 6 and 9 should perform at an acceptable level in Languages and Mathematics (Department of Basic Education, 2011).

ANA is expected to have four key effects on schools:

a) expose teachers to better assessment practices,

b) make it easier for districts to identify schools in most need of assistance,

c) encourage schools to celebrate outstanding performance; and

d) empower parents with important information about their children's performance (Department of Basic Education, 2011).

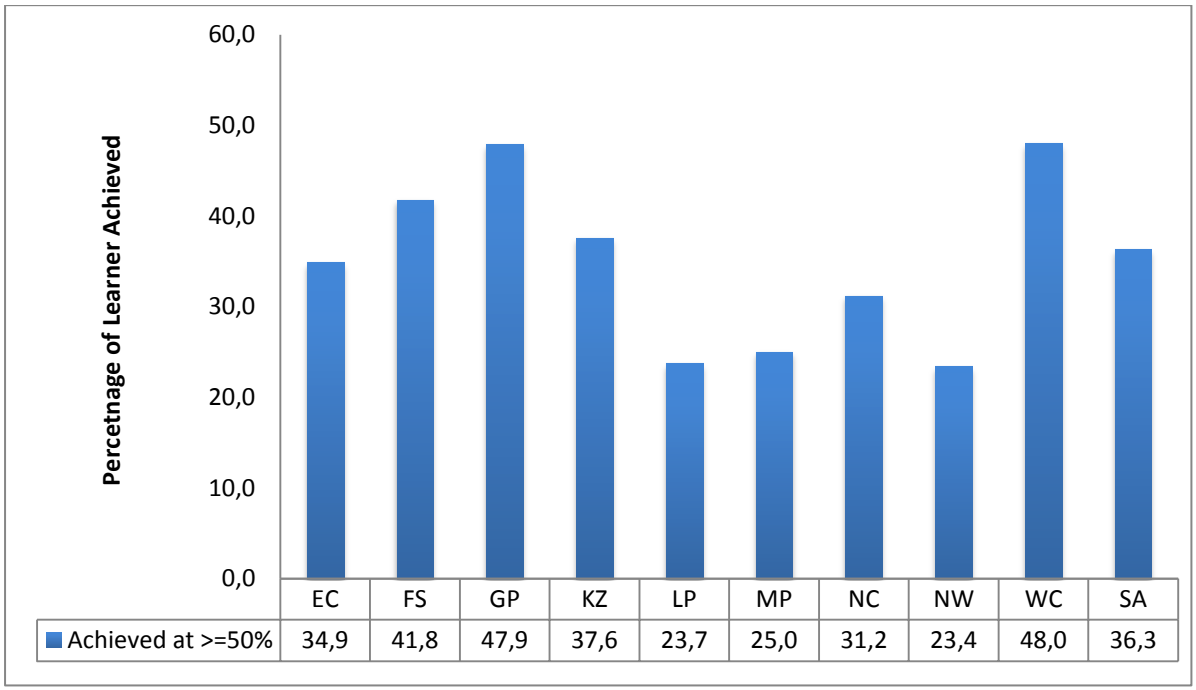
ANA was first administered in February 2011 and tested all learners in Grades 2 to 7 in Literacy and Numeracy in learners' previous year's work, which was performance of the Grades 1 to 6 Literacy and Numeracy curriculum. Almost 6 million learners were tested in 2011. ANA was administered for the second time in September 2012 in public and state funded independent schools. All learners in Grades 1 to 6 and Grade 9 wrote the test for Language/Literacy and Mathematics/Numeracy. Over 7 million learners wrote ANA in 2012.

4.1.1 Grade 3 ANA Numeracy/ Mathematics:

Figure 22 shows the average percentage scores for Grade 3 learners achieving 50% and more for Numeracy/Mathematics by province. In 2012, Grade 3 learners were not performing according to the proposed target of 55% for Numeracy. Nationally, only 36% of learners achieved a Numeracy pass mark of 50% or higher but were well below the proposed target of 55%. When we disaggregated by provinces, we realized that close to 50% of learners in the Western Cape and Gauteng achieved an average Numeracy of 50% and higher, with less than 40% of learners in most provinces achieving average Numeracy scores of 50% and higher. In three provinces, Mpumalanga, Limpopo, and North West less than 25% of learners achieved Numeracy scores of 50% and higher.

According to the indicators developed for the Action Plan to 2014, Grade 3 South African learners should have reached a target of 55% for both Literacy and Numeracy by 2012.

Figure 22: Percentage of Grade 3 learners who achieved the numeracy pass mark of 50% and above



	EC	FS	GP	KZ	LP	MP	NC	NW	WC	SA
Achieved at >=50%	34,9	41,8	47,9	37,6	23,7	25,0	31,2	23,4	48,0	36,3

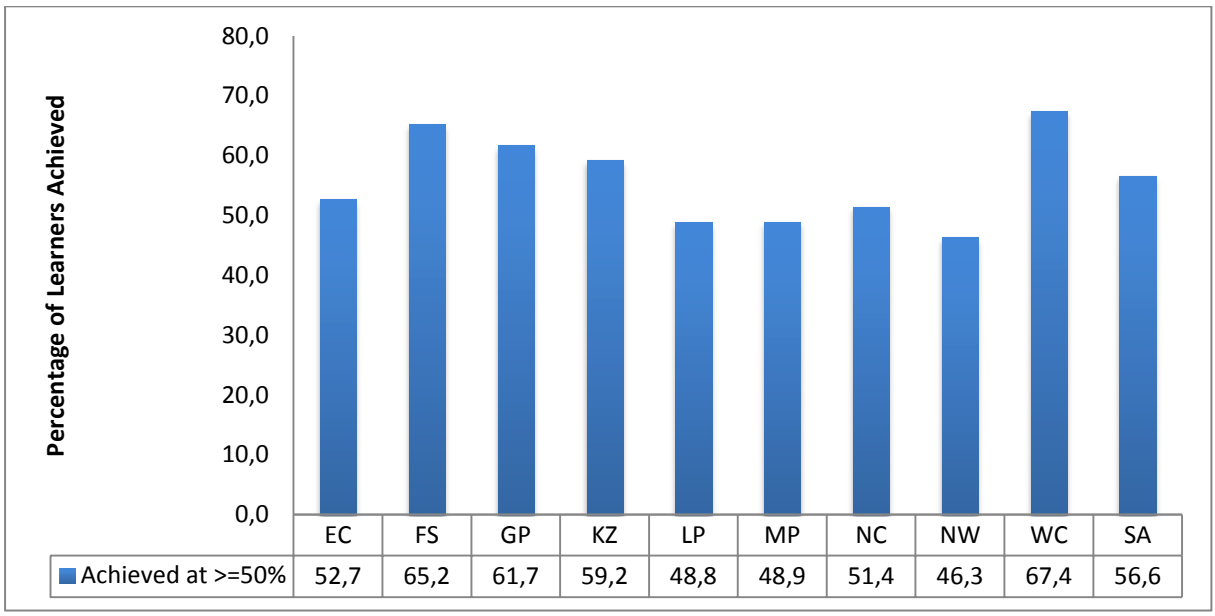
Source: Report on the Annual National Assessment, 2012, Department of Basic Education

4.1.2 Grade 3 ANA Literacy / Language scores

Figure 23 shows the average percentage scores for Grade 3 learners achieving 50% and more by province for Literacy/Language in 2012. More than 50% of Grade 3 learners nationally achieved adequate and higher levels of performance according to the proposed target of 55% for Literacy in 2012. The Western Cape Grade 3 learners performed better than others. They attained 67.4% followed by the Free State (65.2%); these two provinces

achieved the adequate or higher levels of performance in Literacy in 2012. North West had the lowest percentage of Grade 3 learners (46.3%) performing at adequate levels of performance in Literacy.

Figure 23: Percentage of Grade 3 learners who achieved the literacy pass mark of 50% and above

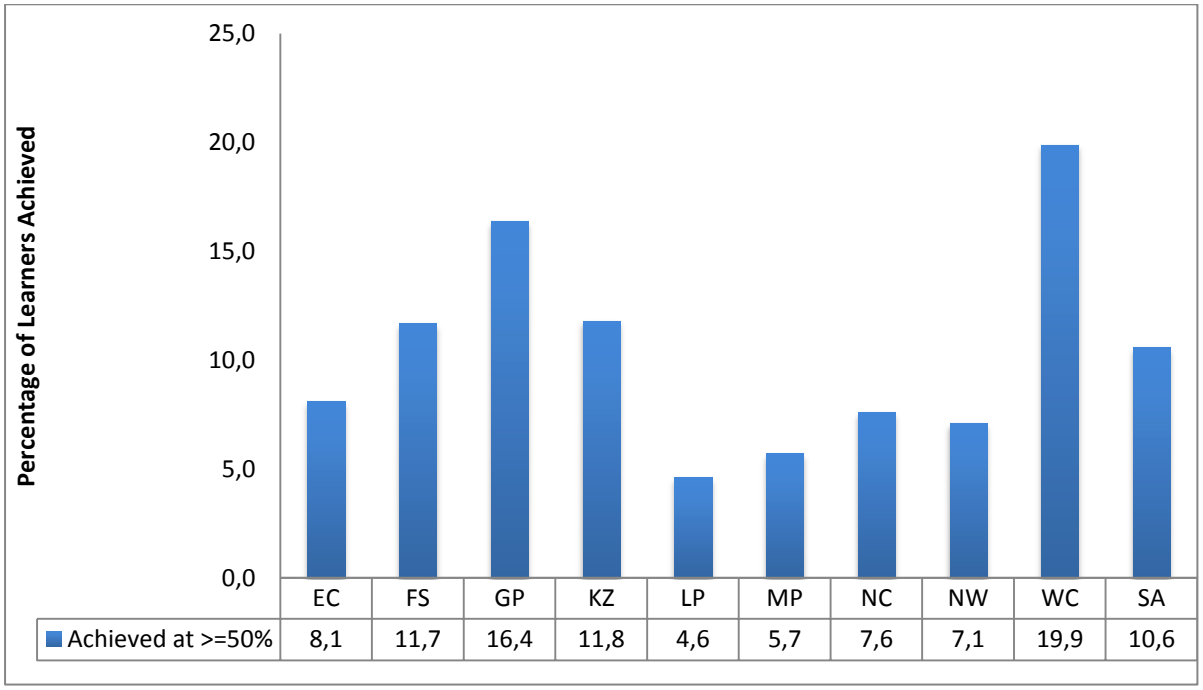


Source: Report on the Annual National Assessment, 2012, Department of Basic Education

4.1.3 Grade 6 ANA Mathematics scores

The achievement of Grade 6 learners who achieved Mathematics scores of 50% and higher by province is in shown in Figure 24. Nationally 10.6% of Grade 6 learners achieved adequate or higher performance in Mathematics. The Western Cape had the highest percentage of Grade 6 learners (19.9%) who achieved adequate or higher performance in Mathematics, followed by Gauteng with 16.4%. Limpopo had the lowest percentage of Grade 6 learners, 4.6%, who achieved adequate or higher performance in Mathematics. By 2012, the percentage of learners scoring 50% and above should have reached the set target of 44%. None of the provinces reached the target or came close to reaching the target.

Figure 24: Percentage of Grade 6 learners who achieved the mathematics pass mark of 50% and above

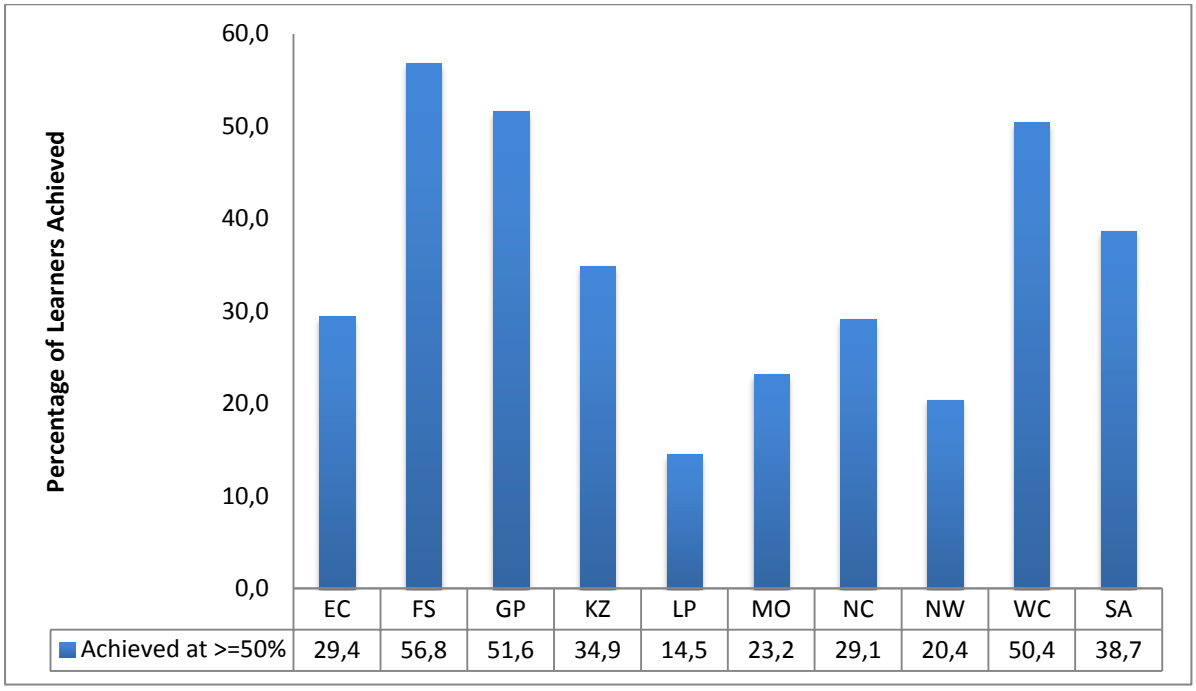


Source: Report on the Annual National Assessment, 2012, Department of Basic Education

4.1.4 Grade 6 ANA Language scores

The achievement of Grade 6 learners who achieved Language scores of 50% and higher by province is in shown in Figure 25. Nationally, 38.7% of Grade 6 learners achieved adequate or higher performance in Mathematics. The Free State had the highest percentage of Grade 6 learners, 56.8%, who achieved adequate or higher performance in Language, followed by Gauteng with 51.6%. Limpopo had the lowest percentage of Grade 6 learners, 14.5%, who achieved adequate or higher performance in Language. By 2012, the percentage of learners scoring 50% and above should have reached the set target of 51%. Two provinces, the Free State and Gauteng reached the target with 56.8% and 51.6% of learners achieving adequate or higher performance, while the Western Cape came close to reaching the target at 50.4%.

Figure 25: Percentage of Grade 6 learners who achieved the language pass mark of 50% and above



Source: Report on the Annual National Assessment, 2012, Department of Basic Education

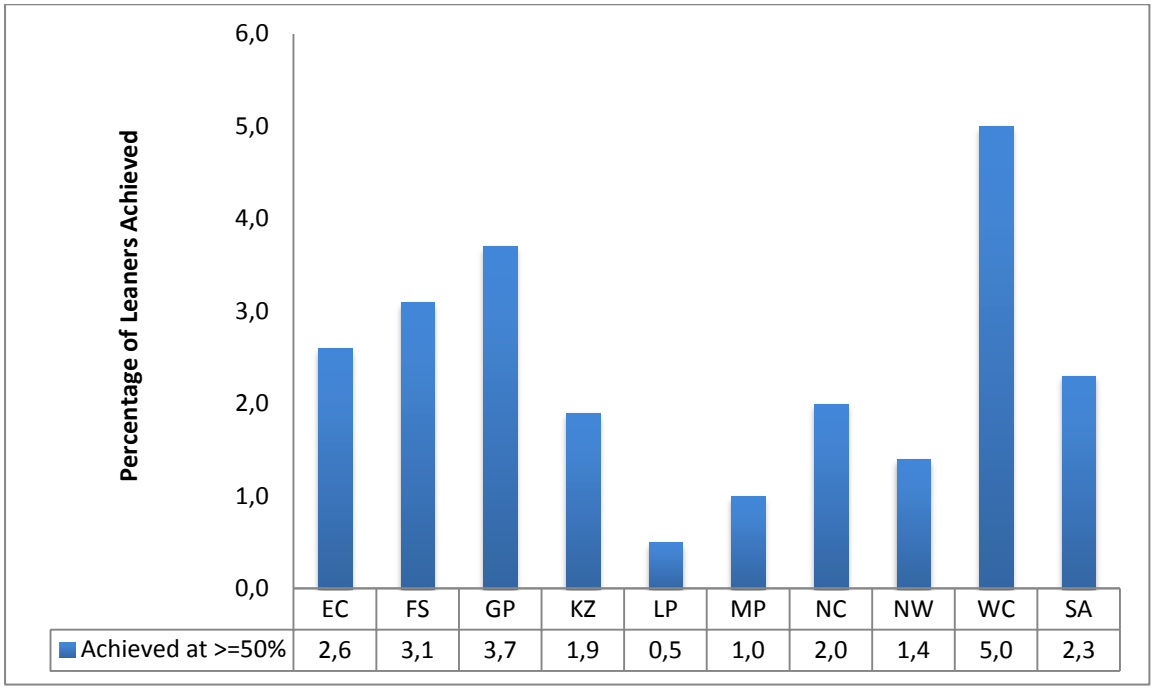
4.1.5 Grade 9 ANA Mathematics scores

The achievement of Grade 9 learners who achieved Mathematics scores of 50% and higher by province is shown in Figure 26. Targets for achievement in Grade 9 will only be set once the baseline has been established from the ANA 2012 results. Learners who have achieved a pass rate of 50% and higher are considered to have achieved an adequate or higher performance score in Mathematics.

Nationally 2.3% (Figure 26) of Grade 9 learners achieved adequate or higher performance in Mathematics. The Western Cape had the highest percentage of Grade 9 learners, 5.0%, who achieved adequate or higher performance in Mathematics, followed by Gauteng with 3.7%. Limpopo had the lowest percentage of Grade 9 learners, 0.5%, who achieved adequate or higher performance in Mathematics.

It should, however, be noted that the Grade 9 performance of learners in Mathematics is below expectation and is therefore to receive the immediate attention of the DBE through additional and more intensive structured intervention programmes (Department of Basic Education 2012).

Figure 26: Percentage of Grade 9 learners who achieved the mathematics pass mark of 50% and above



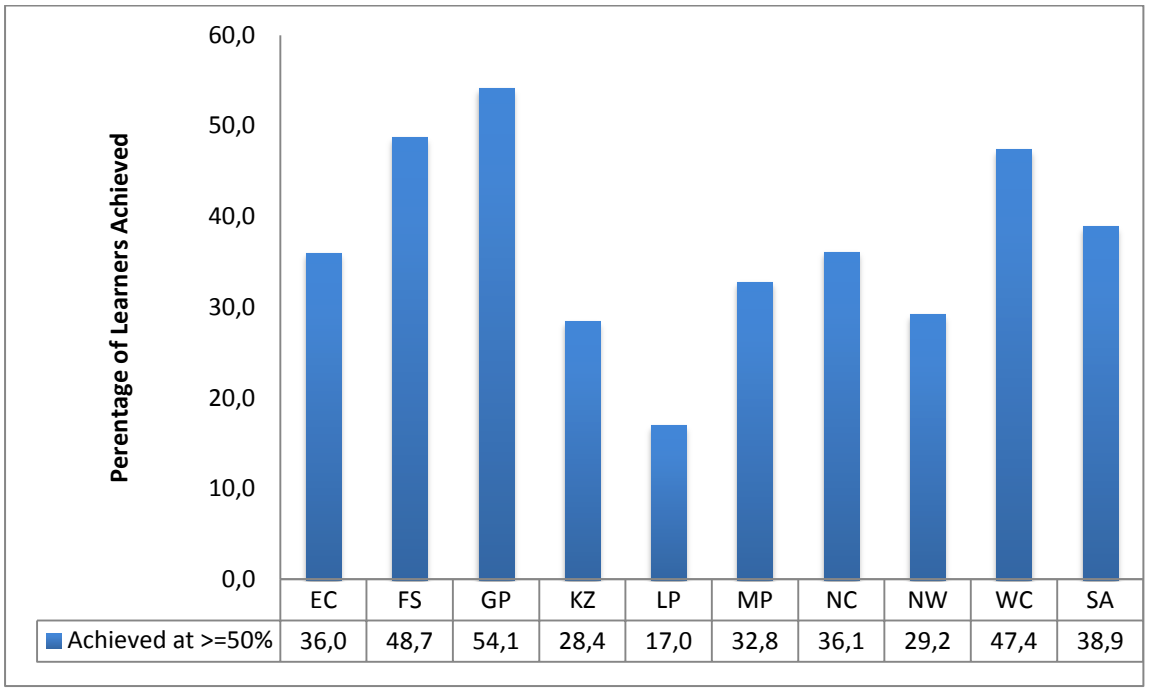
Source: Report on the Annual National Assessment, 2012, Department of Basic Education

4.1.6 Grade 9 ANA Language scores

The achievement of Grade 9 learners who achieved Language scores of 50% and higher by province is shown in Figure 27. Targets for achievement in Grade 9 will only be set once the baseline has been established from the ANA 2012 results. Learners who have achieved a pass rate of 50% and higher are considered to have achieved an adequate or higher performance score in Literacy.

Nationally 38.9% of Grade 9 learners achieved adequate or higher performance in Mathematics. In Language Gauteng had the highest percentage of Grade 9 learners, 54.1%, who achieved adequate or higher performance in Mathematics, followed by the Free State 48.7%, and the Western Cape, 47.4%. Limpopo had the lowest percentage of Grade 9 learners, 17.0%, who achieved adequate or higher performance in Literacy.

Figure 27: Percentage of Grade 9 learners who achieved the language pass mark of 50% and above



Source: Report on the Annual National Assessment, 2012, Department of Basic Education

Key findings from the ANA (DBE 2012) included observations that, while learner achievement in both Language and Mathematics at the foundation phase was largely of adequate quality and level, learner achievement at the intermediate phase in general and in Grade 9 Mathematics in particular, showed wide-ranging deficiencies in basic knowledge and competencies. In both Language and Mathematics, Grade 9 learners demonstrated a fairly limited repertoire of necessary basic skills and knowledge, a signal warranting particular attention, given that this is a critical transition grade into the Further Education and Training Band of the school system. With the vital empirical knowledge of the extent of the challenge, all levels of the education system will be better prepared to develop appropriate intervention programmes to turn the situation around at the senior phase.

4.2 The Trends in International Mathematics and Science Study (TIMSS) 2011

The Trends in International Mathematics and Science Study (TIMSS) is an international assessment of mathematics and science for Grade 4 and Grade 8 learners. TIMSS has been conducted every 4 years since 1995. TIMSS was first administered in South Africa in 1995 and again in 1999 to Grade 8 learners. In 2002, it was administered to Grade 8 and 9 learners and in 2011 was administered to 11 969 Grade 9 learners in 285 schools (HSRC, 2012).

Three countries, South Africa, Botswana and Honduras, administered the assessments at the Grade 9 level. All three continued to demonstrate low performances at this level, for both mathematics and science. Their national scores were among the bottom six countries at the Grade 8 level and below the low-performance benchmark. For mathematics, Botswana achieved an average scale score of 397; South Africa achieved at 352 and Honduras achieved at 338 from a maximum of 1,000. For science Botswana achieved a score of 404; Honduras achieved 369 and South Africa achieved 332 from a maximum of 1,000.

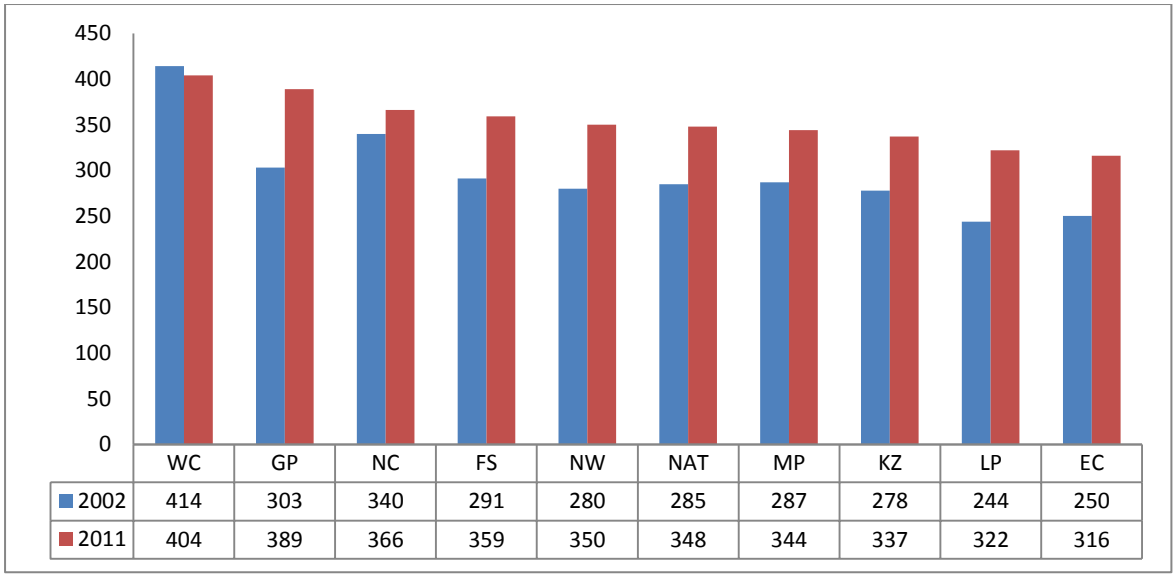
4.2.1 Grade 9 TIMSS 2011 Mathematics and Science scores

The increase in the national average mathematics and science scale scores from TIMSS 2002 to TIMSS 2011 is reflected by a similar increase in the scores of most provinces over the same time period.

In TIMSS 2011, the top three performing provinces are Western Cape (404), Gauteng (389) and Northern Cape (366). The three lowest performing provinces are KwaZulu-Natal (337), Limpopo (322) and the Eastern Cape (316) (Figure 28).

In the majority of provinces, the average score has increased since 2002, with the highest increases in Gauteng (86 points), Limpopo (78 points), North West (70 points), Free State (68 points) and Eastern Cape (66 points). The average score for the Western Cape decreased from 2002 to 2011, although it is not a statistically significant drop (Figure 28).

Figure 28: TIMSS Provincial Mathematics Performance

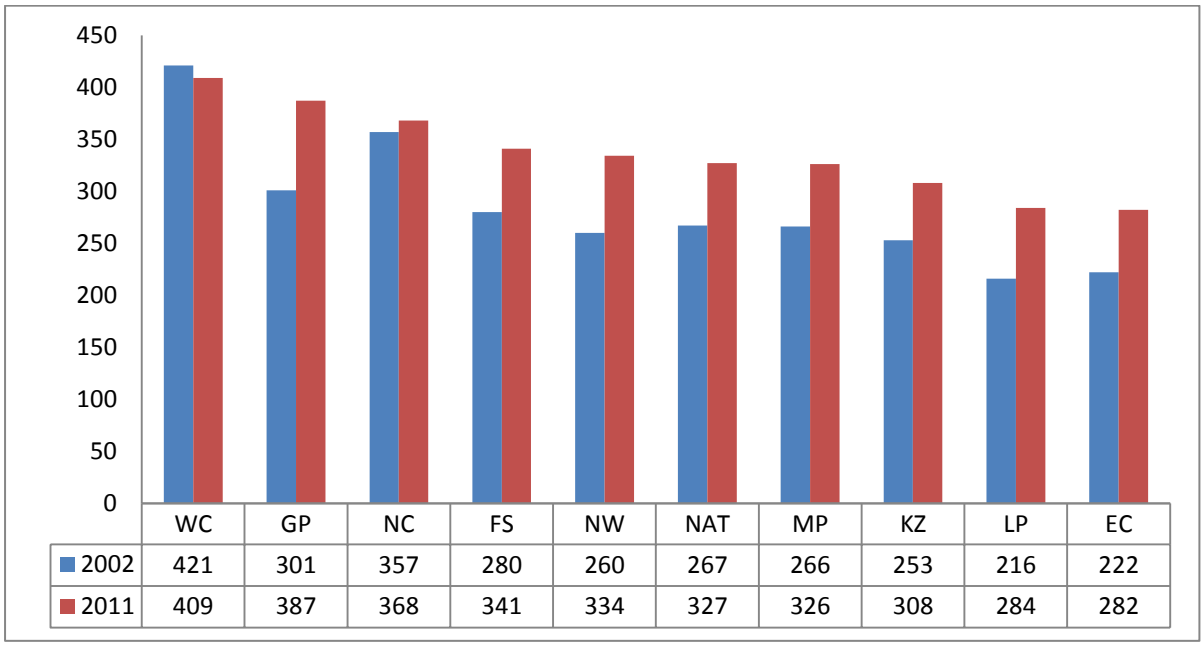


	WC	GP	NC	FS	NW	NAT	MP	KZ	LP	EC
2002	414	303	340	291	280	285	287	278	244	250
2011	404	389	366	359	350	348	344	337	322	316

Source: Trends in Mathematics and Science Study, 2002 and 2011, Human Science Research Council

As for Natural Science, the top three performing provinces in Natural Science are Western Cape (409), Gauteng (387) and Northern Cape (368), and the lowest performing provinces are KwaZulu-Natal (308), Limpopo (284) and the Eastern Cape (282) (Figure 29). In the majority of the provinces, the average scale score has increased since 2002, with the highest increases in Gauteng (86 points), North West (74), Limpopo (68) and Eastern Cape (60). The average scale score in the Western Cape dropped by 12 points and in Northern Cape increased by 11 points. These changes are not statistically significant (Figure 29).

Figure 29: TIMSS Provincial Natural Science Performance



	WC	GP	NC	FS	NW	NAT	MP	KZ	LP	EC
2002	421	301	357	280	260	267	266	253	216	222
2011	409	387	368	341	334	327	326	308	284	282

Source: Trends in Mathematics and Science Study, 2002 and 2011, Human Science Research Council

In 2002, the difference in performance between the highest and lowest performing provinces was 170 points for mathematics and 205 points for Natural Science. This difference decreases in 2011, with an 88-point difference for mathematics and 127 points difference for Natural Science. This suggests a move towards more equitable educational outcomes.

4.2.2 Grade 9 TIMSS 2011 Low International Benchmark

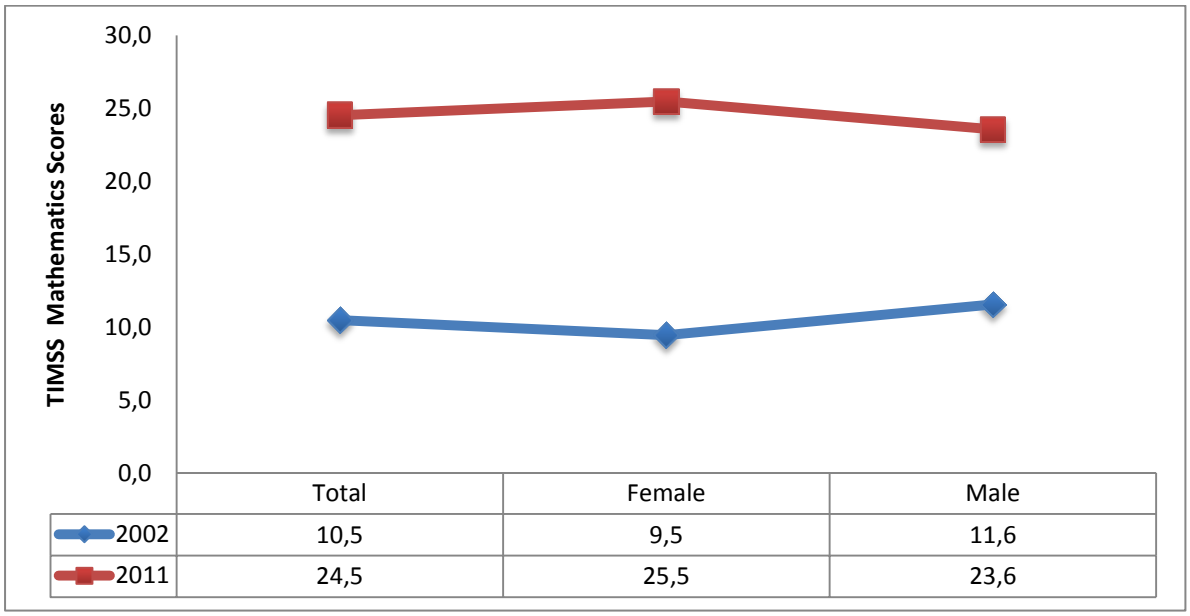
The performance of the top end performers was analysed using the TIMSS international performance benchmarks and the changes were tracked over time.

Figure 30 describes the proportion of mathematics learners who performed at scores of 400 and above. From 2002 to 2011, the number of mathematics learners scoring above the low benchmark of 400 more than doubled, from 10.5% to 24.5%.

The number of male and female learners scoring above the low benchmark of 400 more than doubled from 2002 to 2011. In 2002 more male learners (11.6%) in grade 9 than female learners (9.5%) performed at scores of 400 and above. In 2011 more female (25.5%) than male (23.6%) learners performed at scores of 400 and above.

At the low international benchmark (400 – 475) students have some basic mathematical knowledge. More than three quarters of South African mathematics students scored below the low international benchmark indicating that they do not possess the basic mathematics knowledge required in the Senior Phase.

Figure 30: The Percentage of TIMSS Mathematics learners who performed at > 400



	Total	Female	Male
2002	10,5	9,5	11,6
2011	24,5	25,5	23,6

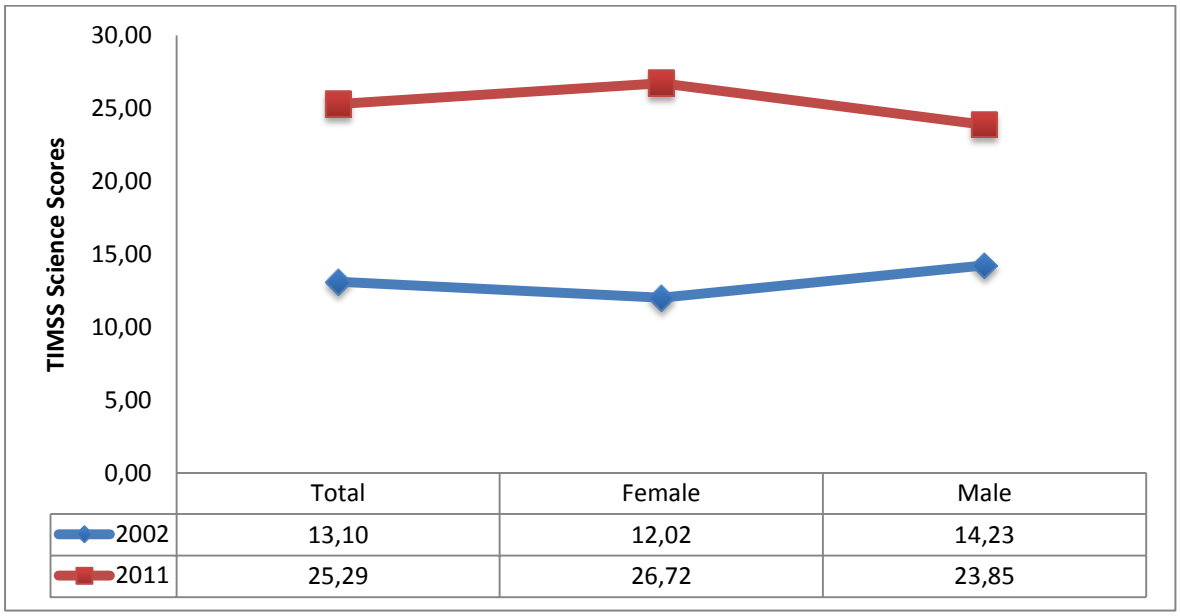
Source: Trends in Mathematics and Science Study, 2002 and 2011, Human Science Research Council

Figure 31 describes the proportion of Natural Science learners who performed at scores of 400 and above. From 2002 to 2011, the number of Natural Science learners scoring above the low benchmark of 400 more than doubled, from 13.1% to 25.3%.

The number of male and female learners scoring above the low benchmark of 400 and more increased significantly from 2002 to 2011 with the percentage of female learners more than doubling. In 2002 more male learners (14.2%) than female learners (12.0%) performed at scores of 400 and above. In 2011 more female (26.7%) than male (23.9%) learners performed at scores of 400 and above.

At the low international benchmark (400 – 475) students can recognize some basic facts from the life and physical Natural Sciences. They have some knowledge of biology, and demonstrate some familiarity with physical phenomena. Slightly less than three quarters of South African Natural Science students scored below the low international benchmark indicating that they do not possess the basic Natural Science knowledge required in the Senior Phase.

Figure 31: The Percentage of TIMSS Natural Science learners who performed at > 400



	Total	Female	Male
2002	13,10	12,02	14,23
2011	25,29	26,72	23,85

Source: Trends in Mathematics and Science Study, 2002 and 2011, Human Science Research Council

The number of those performing at the top end must improve to compare to international achievement profiles. Schools that have been traditionally well resourced need to be challenged academically and supported to improve the performance of their learners. South Africa needs to re-affirm the agenda for excellence in educational outcomes.

The average national scale score for mathematics and Natural Science remained static over the years 1995, 1999 and 2002. This is likely attributable to the structural and educational changes made as the country moved from apartheid to a democratic state after 1994. In contrast, from 2002 to 2011, in the public school sector the national average mathematics score increased by 63 points and the national average Natural Science score by 60 points. The greatest improvement was among learners who can be described as the 'most disadvantaged' and who scored the lowest initially. This finding coincides with data on the learners and schools receiving the highest number of interventions aimed at improving the quality of education, from both public and private sector service providers. The results suggest the value of the continued investments in low-income households (to improve educational levels of the household and encourage the channelling of more resources to education) and in less-resourced schools (to improve school climate, resources and quality of teaching). It is through the multiple investments and effort of learners and teachers, with support from households and the departments of education that South Africa will continue to increase the mathematics and Natural Science achievement scores of lower-performing learners.

4.3 National Senior Certificate

The National Senior Certificate (NSC) is the qualification that is attained after having satisfied the requirements contained in the National Curriculum Statement. The NSC is a three year qualification covering Grades 10, 11 and 12. It is the apex of the twelve years of schooling, and the teaching and learning of the preceding twelve years is embodied in this qualification. The primary purpose of the National Senior Certificate is to: (a) equip learners with knowledge, skills, values and attitudes that will enable learners to participate meaningfully in society; (b) provide access to higher education; (c) facilitate the transition of learners from education institutions to the workplace; and (d) provide employers with a sufficient profile of a learner's competencies. The NSC examination was administered across the country for the fifth year in 2012 (Department of Basic Education, 2012).

Sections 8.2 to 8.4 will first provide an overview of the analysis from the NSC database such as the pass rate at an aggregate level and then disaggregated by province and gender, candidates passing with a Bachelor's distinction and the number of candidate who wrote the NSC. Section 8.5 will discuss factors that might have an influence on the perception of the quality of the NSC pass rate such as the decreasing number of mathematics and science candidates, learners opting for a vocational study path, and the perceived shortage and quality of mathematics teachers.

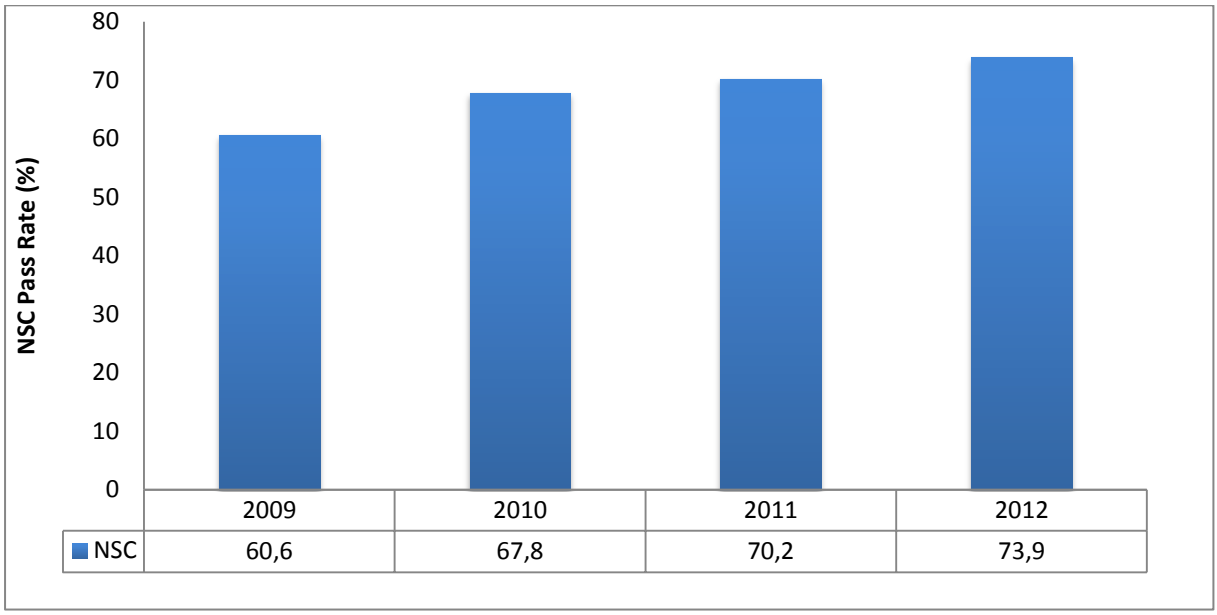
Despite its challenges the National Senior Certificate examination was widely regarded as the definitive measure of quality in schooling and the main outcome indicator of the schooling system. Among the major problems with using NSC pass rates as an indicator of performance are, firstly, that many candidates do not get as far as Grade 12, and, secondly, that the pass rate does not indicate how many years the relatively successful candidates took in getting to Grade 12 (Seekings, 2002). The dropout and repeater rates in grades 10 and 11 are largely due to the fact that students are not acquiring the foundational skills they should have in earlier grades. Consequently, problems with NSC performance, and dropout just before grade 12, are actually rooted in weak learning in primary school and early secondary school (Spaull 2012). Students carry their learning deficits with them as they get pushed through the grades only to fail in grade 10, 11 or 12 since schools do not want high failure rates in grade 12. The real problem lies in earlier grades (Spaull 2012).

Sections 8.6 and 8.7 refer to national and international assessment studies respectively, which assesses learners' cognitive development prior to grade 12. The Annual National Assessment is a national standardised test administered to every child in every school to assess learners' language and mathematical skills. The Trends in Mathematics and Science Study is a cross-national assessment of the mathematics and science knowledge of fourth and eighth grade learners which allows participating nations to compare learners' educational achievement across borders and offers South Africa an opportunity to benchmark itself against other countries.

There has been a steady improvement in learner performance from 60.6% in 2009 to 73.9% in 2012 (Figure 32). The quality of the grade 12 pass rate has been vigorously debated over the last few years. The topic of the debate refers to the declining numbers of mathematics and science candidates writing the NSC and the issue of gate keeping in schools, discussed above. Another issue related to gate-keeping and contributing to the negative perception of the quality of the NSC pass rate particularly at the school level is the significant increase in

the number of part time candidates from 39 255 in 2009 to 120 484 in 2012. Part time candidates do not reflect in the pass rate per school.

Figure 32: National Senior Certificate pass rate for the period 2009 to 2012

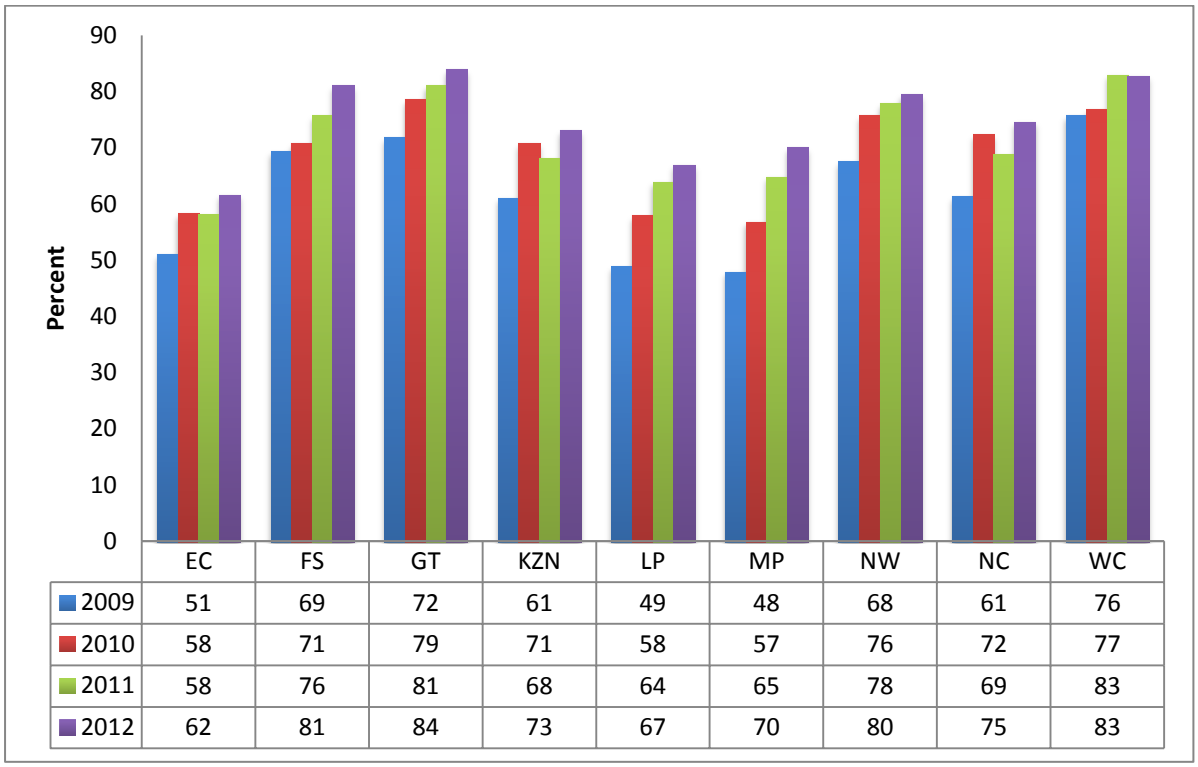


Source: National Senior Certificate Database, 2009 – 2012, Department of Basic Education

4.3.1 National Senior Certificate pass rate per province for the period 2009 to 2012

Figure 33 shows that overall; there has been a steady improvement in learner performance in all the provinces from 2009 to 2012. In 2009 the overall pass rate, by province, varied from 76% in the Western Cape to 48% in Mpumalanga. In 2012 the overall pass rate, by province, varied from 84% in Gauteng to 62% in the Eastern Cape. Throughout the period, the Western Cape and Gauteng provinces have been alternating at the top. Mpumalanga has made the most gains in percentage points over the period, improving from a very low 48% pass rate in 2009, to 70% in 2012, beating the Eastern Cape and Limpopo. In 2011, two provinces surpassed 80% learner pass rate, Gauteng and the Western Cape. In 2012, two more provinces obtained 80% pass and more. These were the North West and Free State (Figure 33). In 2012 there was improvement in all the provinces, except for the Western Cape where the pass rate remained constant. This was an improvement from the 2011 period where there was decrease in two provinces, KwaZulu-Natal and the Northern Cape. Provinces at the bottom end of the range seem to make bigger gains than provinces at the top. From 2009 to 2012, learner performance of the following five provinces kept on improving every year, Free State, Gauteng, Limpopo, North West and Mpumalanga.

Figure 33: National Senior Certificate Pass Rate by Provinces, 2009 to 2012

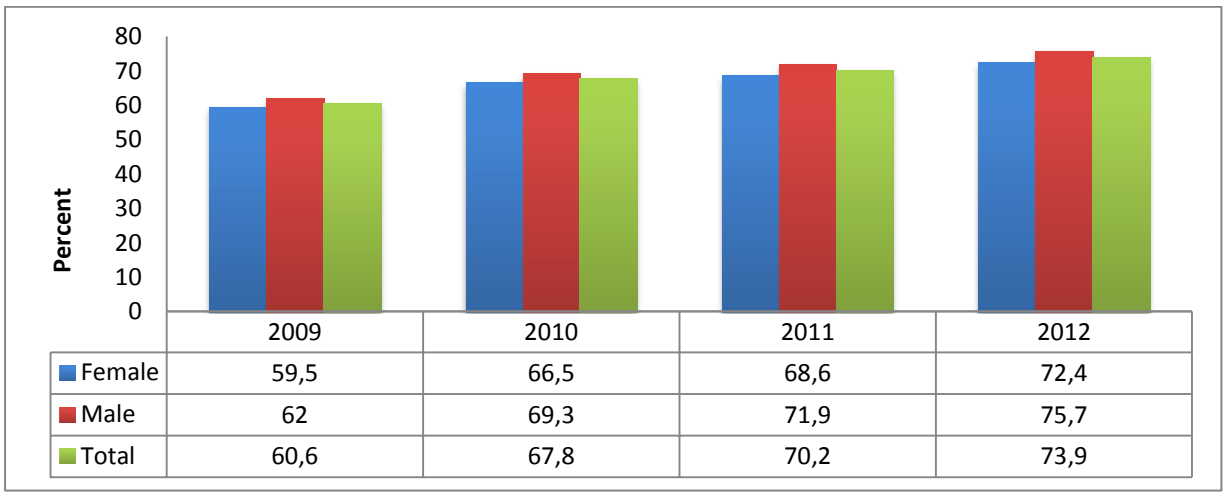


	EC	FS	GT	KZN	LP	MP	NW	NC	WC
2009	51	69	72	61	49	48	68	61	76
2010	58	71	79	71	58	57	76	72	77
2011	58	76	81	68	64	65	78	69	83
2012	62	81	84	73	67	70	80	75	83

Source: National Senior Certificate Database, 2009 – 2012, Department of Basic Education

There has been a steady improvement in learner performance from 60.6% in 2009 to 73.9% in 2012 (Figure 34). Nationally and provincially more females than males wrote the NSC examination. However, in relative terms, as indicated in Figure 34 the national pass rate of male candidates (75.7%) in 2012 was higher than the national pass rate of female candidates (72.4%).The percentage of male candidates passing the NSC has been higher than that of female candidates from 2009.

Figure 34: National Senior Certificate Pass Rate by Gender



	2009	2010	2011	2012
Female	59,5	66,5	68,6	72,4
Male	62	69,3	71,9	75,7
Total	60,6	67,8	70,2	73,9

Source: National Senior Certificate Database, 2009 – 2012, Department of Basic Education

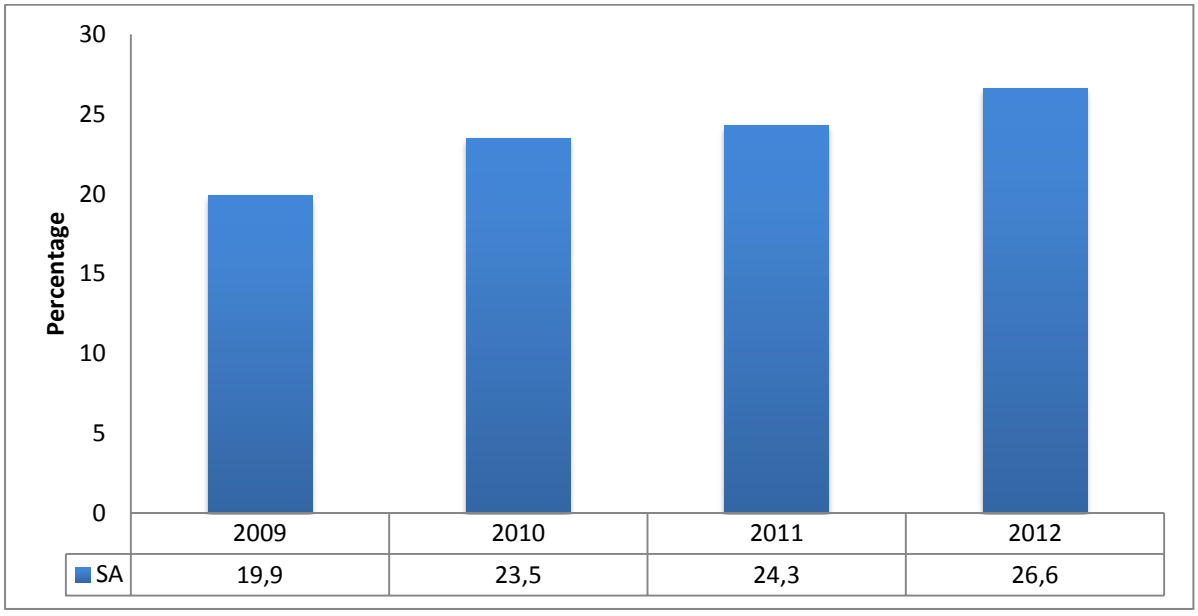
4.4 Grade 12 candidates who achieved a bachelor's pass.

The Bachelor's pass is only an indication that learners have qualified to enter a bachelor degree or refers to minimum entry requirements at a university and that the university may add additional requirements for specific programmes. The bachelor pass does not guarantee learner acceptance into their chosen degree at a specific university.

4.4.1 Proportions of grade 12 candidates who achieved a bachelor's pass

There has been a steady increase in the proportion of learners with a bachelor's pass from 20% in 2009 to 27% in 2012, an increase of 7% (Figure 35). If we compare the NSC performance by type of qualification, the number of candidates qualifying for bachelor studies has increased, from 120 767 in 2011 to 136 047 in 2012. Of the total number of learners who wrote the NSC in 2012, 26.6% qualified for admission to Bachelor studies at higher education institutions.

Figure 35: Percentage of Candidates who achieved a Bachelor's degree pass, 2009 to 2012

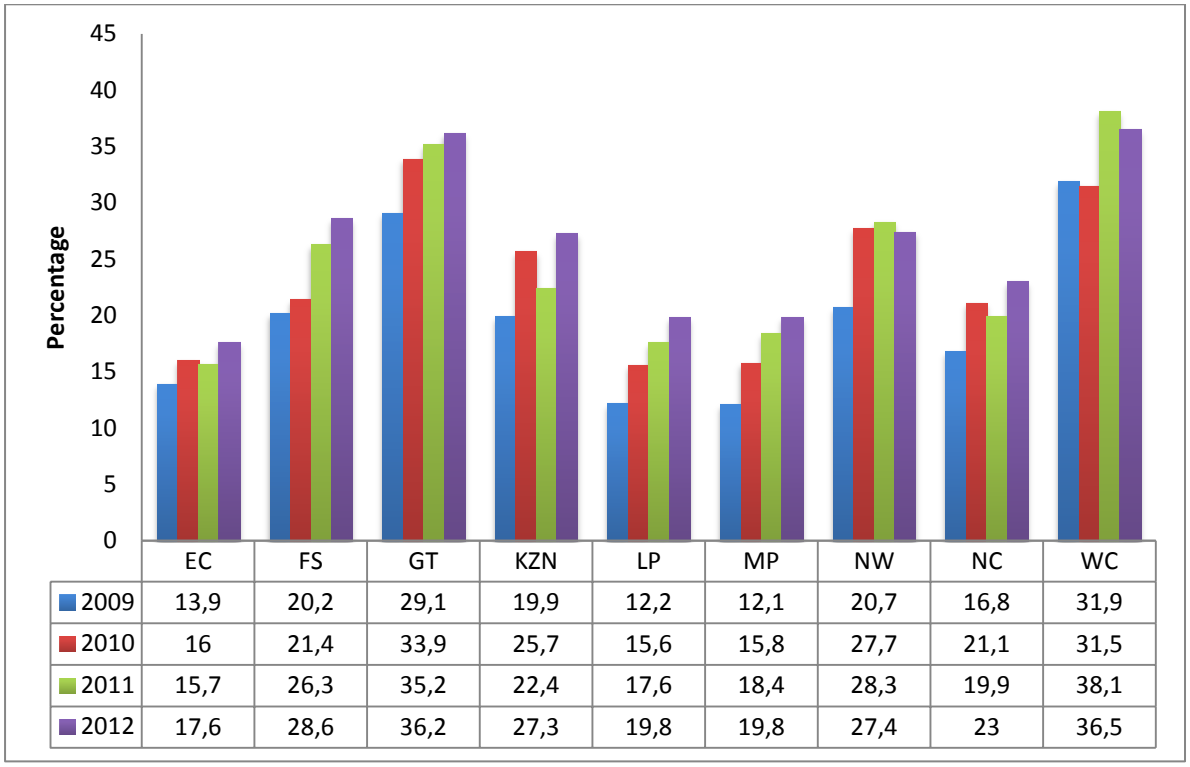


Source: National Senior Certificate Database, 2009 – 2012, Department of Basic Education

4.4.2 The Proportion of Learners who obtained a Bachelor's degree pass by Province

The proportion of learners who achieved a Bachelor's pass by province shows the same trend as observed nationally. From 2009 to 2012 the percentage of bachelor's passes achieved in each province increased. In 2012 the Western Cape had the highest percentage of learners that passed with a Bachelor's at 36.5%, followed by Gauteng at 36.2% (Figure 36). While there was a general increase in the number and percentage of Bachelor passes nationally from 2011 to 2012, two provinces, The Western Cape and North West, experienced slight declines in the percentage of Bachelor passes.

Figure 36: Percentage of Candidates who achieved a Bachelor's degree pass by Province, 2009 to 2012



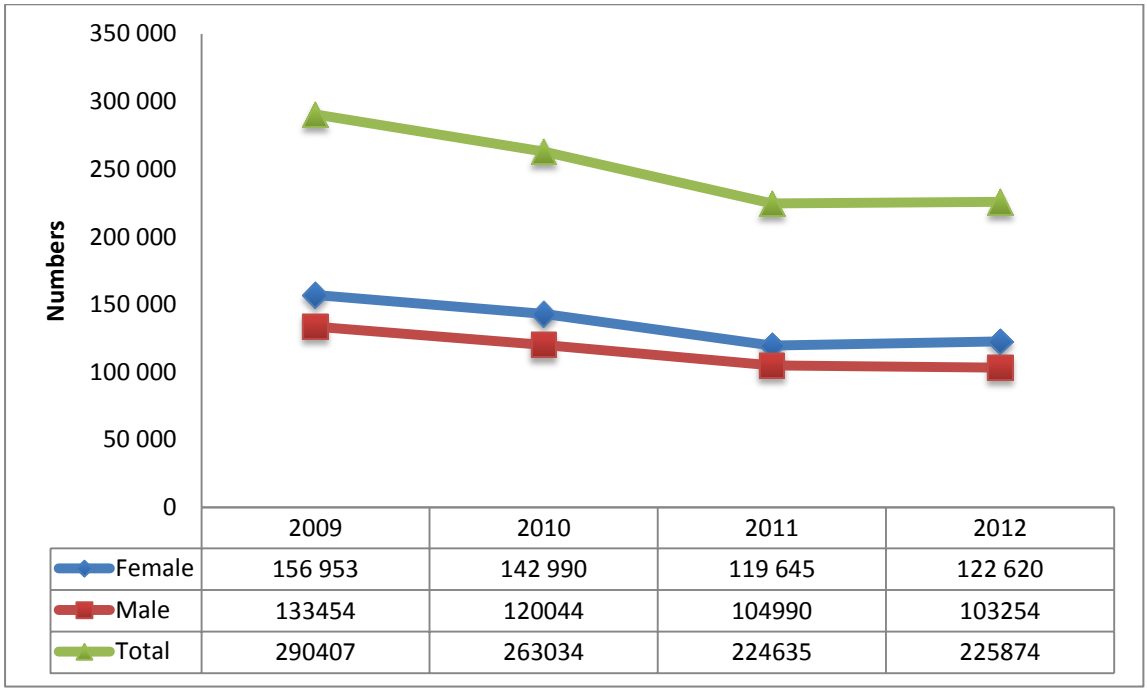
	EC	FS	GT	KZN	LP	MP	NW	NC	WC
2009	13,9	20,2	29,1	19,9	12,2	12,1	20,7	16,8	31,9
2010	16	21,4	33,9	25,7	15,6	15,8	27,7	21,1	31,5
2011	15,7	26,3	35,2	22,4	17,6	18,4	28,3	19,9	38,1
2012	17,6	28,6	36,2	27,3	19,8	19,8	27,4	23	36,5

Source: National Senior Certificate Database, 2009 – 2012, Department of Basic Education

4.5 Grade 12 candidates who wrote Mathematics

Figure37 shows the number of candidates that studied mathematics during the years 2009 to 2011, disaggregated by male and female. Figure 37 reveals that the numbers of students who wrote grade 12 mathematics decreased yearly from 2009 to 2012 nationally. There is a 22% decrease of students who write mathematics from 2009 to 2012 nationally. This near quarter decrease indicates that there are other factors that influence the number of students who take mathematics prior to grade 12.

Figure 37: Total Number of National Senior Certificate Mathematics Candidates by Gender, 2009 to 2012

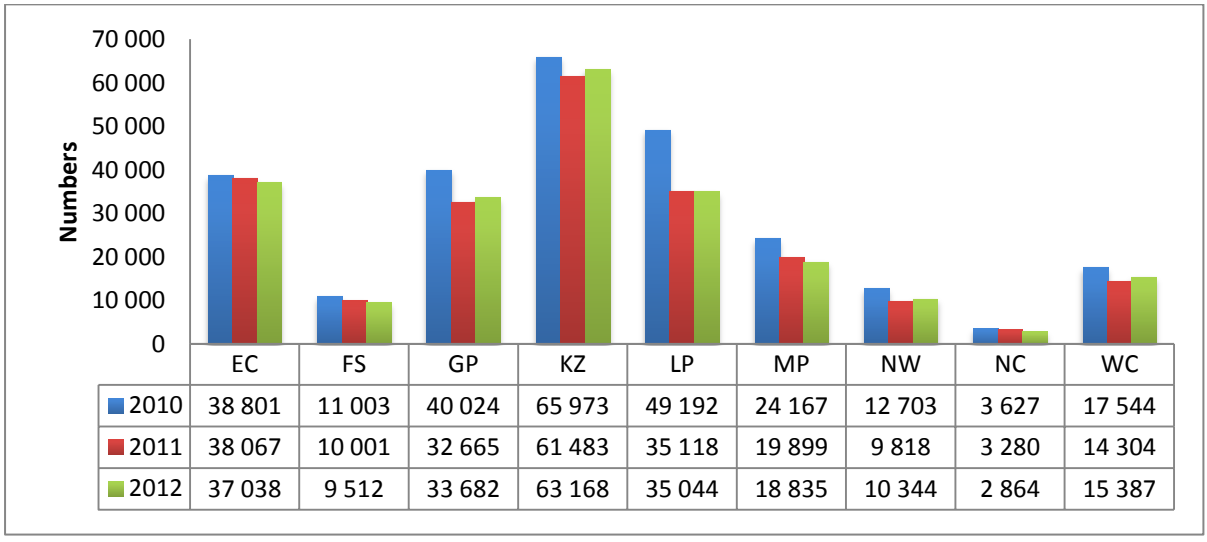


	2009	2010	2011	2012
Female	156 953	142 990	119 645	122 620
Male	133454	120044	104990	103254
Total	290407	263034	224635	225874

Source: National Senior Certificate Database, 2009 – 2012, Department of Basic Education

Figure 38 shows the total number of students that studied mathematics during the years 2009 to 2011, disaggregated by province. There has been a decrease provincially in the numbers of students who wrote grade 12 mathematics from 2009 to 2012 nationally. As mentioned above the decrease in mathematics candidates provincially could be attributed to factors that influence the number of students who take mathematics prior to grade 12.

Figure 38: Total Number of National Senior Certificate Mathematics Candidates by Province



	EC	FS	GP	KZ	LP	MP	NW	NC	WC
2010	38 801	11 003	40 024	65 973	49 192	24 167	12 703	3 627	17 544
2011	38 067	10 001	32 665	61 483	35 118	19 899	9 818	3 280	14 304
2012	37 038	9 512	33 682	63 168	35 044	18 835	10 344	2 864	15 387

Source: National Senior Certificate Database, 2009 – 2012, Department of Basic Education

4.6 National Senior Certificate examinations discussion

As mentioned above the NSC pass rate on its own is not a good measure of academic achievement in the schooling system. NSC performance should not be viewed in isolation and as discussed below reflects the inequalities many learners are confronted by within the education system.

The number of full-time candidates dropped from around 581 000 in 2009 to 559 000 in 2010. This decrease continued and candidate numbers dropped further to 512 029 in 2011 and slightly increased to 527 814 in 2012. An important factor that influences the pass rate is the number of examination candidates. When this decreases, the percentage of well-performing learners tend to be higher, largely because of the holding back of worse performing learners in Grade 11 in the previous year. 'Gate-keeping' is a tactic employed by schools to manipulate pass rates at school level by screening learners at the end of grade 11. There is evidence that this is happening on a large scale, with a fall-off in school enrolment between grades 11 and 12 of about one-third across the country.

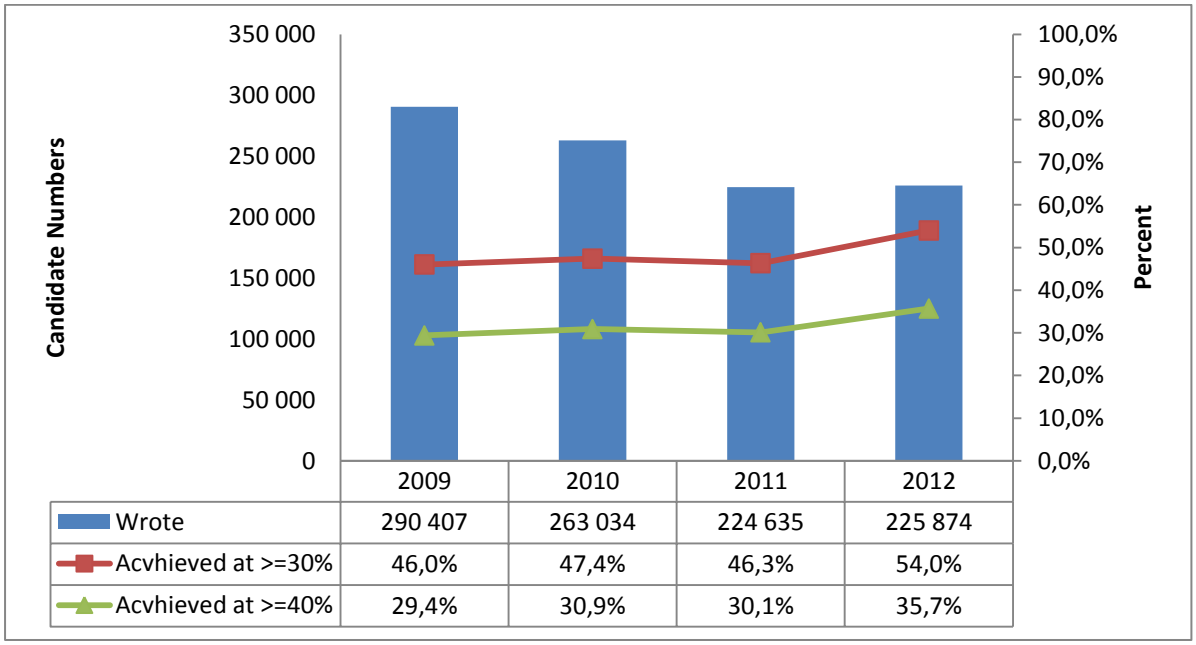
Some schools resort to 'gaming' the system by pushing poor performing learners out of the system in order to protect the school's pass rate. Principals weed out higher-risk candidates to increase the grade 12 pass rate of the school and by default, nationally. The number of part-time candidates significantly increased from 39 255 in 2009 to 120 484 in 2012. This is almost certainly a factor that contributed towards the higher pass rates in 2010, 2011 and 2012.

There was also a notable improvement in key subjects, with the maths pass rate standing at 54%, up from 46.3% in 2011 (Figure 39), and the physical science pass rate increasing to 61.3%, from 53.4% in 2011.However, there has been a steady decrease in the number of mathematics and science candidates who wrote the NSC from 2008 to 2012. As discussed above the decline in candidate numbers between Grades 11 and 12 ensures that the percentage of well-performing learners writing the NSC tends to be higher.

Figure 39 shows the number of Mathematics candidates from 2009 to 2011 and their achievement levels at the 30% and 40% pass rate. The results show an inverse relationship between the decline in candidate numbers from 2009 to 2012 and the increase in learner performance at both the 30% and 40% level of achievement.

With the introduction of Mathematical Literacy in 2006 an increasing percentage of Mathematics learners are migrating to Mathematics Literacy. Mathematics Literacy is selected as a soft option but not recognised for admission to University studies in certain faculties.

Figure 39: NSC Mathematics Candidates by Level of Achievement Obtained, 2009 to 2012



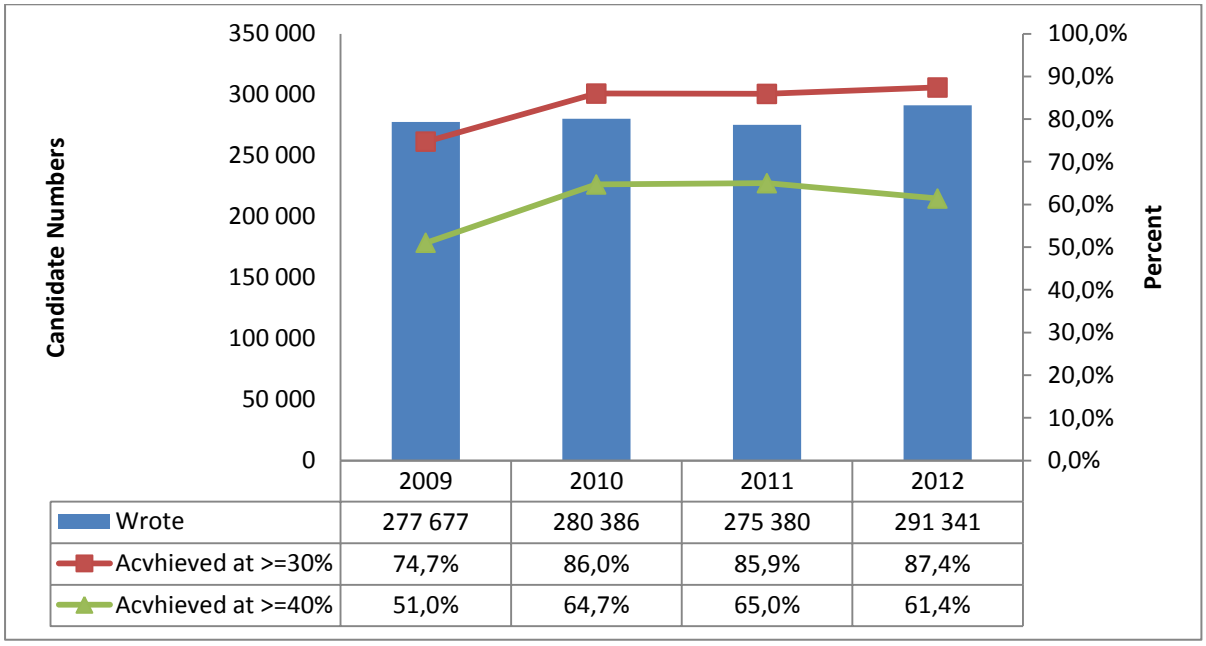
	2009	2010	2011	2012
Wrote	290 407	263 034	224 635	225 874
Acvhieved at >=30%	46,0%	47,4%	46,3%	54,0%
Acvhieved at >=40%	29,4%	30,9%	30,1%	35,7%

Source: National Senior Certificate database 2009- 2012, Department of Basic Education

All students are required to take either maths or maths literacy. There was a small shift from the harder mathematics to the easier mathematical literacy between 2009 and 2010.In 2009 51.1% (Figure 40) of Mathematics/Mathematical Literacy students opted for Mathematics and in 2010 the percentage of students opting for Mathematical Literacy was 51.6%. In 2012 the percentage of Mathematics/Mathematical Literacy students opting for Mathematics Literacy was 56.3%

The decline in Mathematics candidates accompanied by the concurrent increase in Mathematical Literacy candidates is an indication that schools are directing learners away from Mathematics towards Mathematical Literacy, a practice that narrows learners' options for further study. This tactic employed to ease passing requirement for NSC candidates and to increase the schools pass rate might seriously disadvantage learners.

Figure 40: NSC Mathematical Literacy Candidates by Level of Achievement Obtained, 2009 to 2012



	2009	2010	2011	2012
Wrote	277 677	280 386	275 380	291 341
Acvhieved at >=30%	74,7%	86,0%	85,9%	87,4%
Acvhieved at >=40%	51,0%	64,7%	65,0%	61,4%

Source: National Senior Certificate database 2009- 2012, Department of Basic Education

Even though the overall pass rate and the mathematics and science pass rates have improved there has been a debate about the quality of the passes learners obtained. An important factor that impacts on the quality of the NSC pass rate in South Africa is teaching quality. According to Dembele and Lefoka (2007) evidence suggest that (i) teaching is arguably the strongest school-level determinant of student achievement; (ii) teaching effect on student learning is reportedly higher in Sub-Saharan Africa than it is in high-income countries; (iii) learning achievement is considerably lower in the subcontinent's schools; and (iv) the kind of teaching that takes place in these schools confines students to a passive role and only fosters lower order skills.

The debate about mathematics teacher education curriculum continues to grow because of the global challenges on student's mathematics performance (Feza and Diko, in press). Poor mathematical teacher performance of South Africa students has been related to inadequate teaching practices as one of the major factors that impact the students' performance. The inadequate content knowledge that mathematics teachers demonstrate has been claimed to be influential in the poor teaching practices which translated into poor learner performance.

4.7 Graduates in Higher Education Institutions

Table13 shows that over 150 000 students graduated with degrees or received diplomas/certificates from public HEIs in 2010. The majority of graduates and diplomates (students who received diplomas or certificates) were in the fields of Science, Engineering and Technology (SET) and Business.

In 2001 more than 90 000 students graduated with degrees or received diplomas/certificates from public HEIs. The majority of graduates and diplomates were in the field of Other Humanities and Social Sciences.

Table 13: HE graduates by programme (2001 – 2010)

Graduates	Science, Engineering & Technology	Business & Management	Education	All Other Humanities & Social Sciences	Total
2001	23 909	21 876	23 147	26 377	95 329
2002	26 882	25 052	22 446	25 863	100 243
2003	29 463	27 864	23 749	24 263	105 344
2004	31 328	29 002	28 849	27 622	116 801
2005	33 551	28 126	29 086	29 290	120 053
2006	35 562	30 111	28 548	30 342	124 671
2007	36 637	31 104	28 332	30 814	126 887
2008	38 764	31 813	29 624	32 808	133 009
2009	40 973	33 788	35 532	34 517	144 810
2010	42 747	41 724	38 258	31 012	153 741

Source: HEMIS database 2001- 2010

Table14 shows that in 2010, the graduation rate of doctoral students in South African public Higher Education (HE) institutions was 12%. The graduation rate has been calculated by dividing the doctoral graduates of the 2011 academic year by the headcount enrolments of that year. For noting, the methodology means a significant increase in doctoral headcount enrolments could result in a lower graduation rate and vice versa, a significant drop in enrolments could result in an increased graduation rate. Doctoral graduates in 2010 would normally have enrolled prior to the 2010 academic year. Similarly for Master's and undergraduate students the graduation rate was 18% and 16%, respectively.

There has been a slight increase in the percentage of undergraduate degree and diploma graduates, and master's degree graduates, while the doctoral graduation rate remained at 12% on average from 2004 to 2010.

Table 14: HE graduates by Degree type (2005 – 2010)

	Undergraduate Degrees and Diplomas (%)	Master's Degrees (%)	Doctoral Degrees (%)
2004	14	17	12
2005	15	18	13
2006	15	18	11
2007	15	19	13
2008	15	18	12
2009	16	19	13
2010	16	18	12

Source: HEMIS database 2001- 2010

4.8 Functional Literacy

Literacy is a fundamental human right and the foundation for lifelong learning. It is fully essential to social and human development in its ability to transform lives. For individuals, families, and societies alike, it is an instrument of empowerment to improve one's health, one's income, and one's relationship with the world.

Literacy is important because illiteracy has a tendency to limit opportunities to develop or maintain literacy skills, to restrict options in life and to compound the disadvantages illiterate people have. Literacy refers to an individual's ability to read and write something which has come to be known as "basic literacy." As the International Council for Adult Education notes, basic literacy is generally understood as: learning to read and write (text and numbers), reading and writing to learn, and developing these skills and using them effectively for meeting basic needs (ICAE, 2003). Literacy also considers numeracy which is the ability to undertake simple arithmetic calculations (Department of Basic Education, 2012). Besides basic literacy there is functional literacy, a term kept for the level of reading and writing which adults are thought to need in modern complex society (Barton 2006). For the purposes of this report the definition of functional literacy as discussed below is people who have completed schooling to Grade 7.

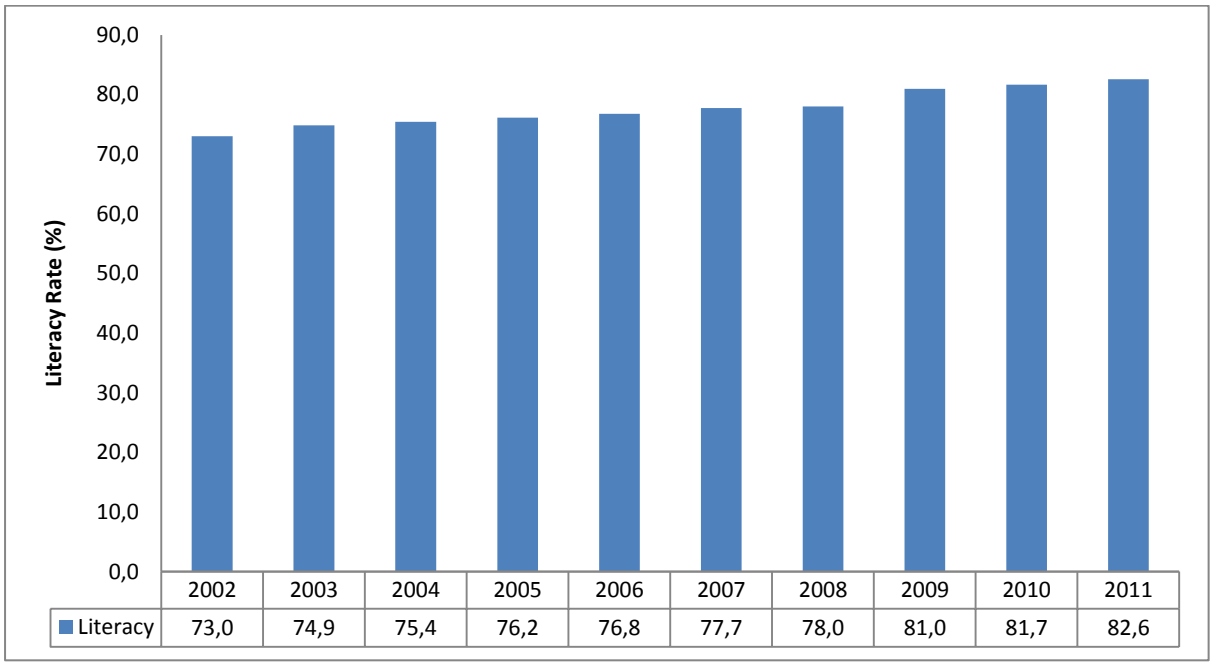
Illiteracy remains prevalent among women, the elderly, in rural communities and among members of poor households (UNESCO 2006). Opportunities for acquiring literacy are especially limited among socially excluded groups such as the indigenous, the nomadic, the migrant, the homeless, the internally displaced and people with disabilities. New, direct measures of literacy that go beyond conventional ones — which have been based largely on self-assessments, and expressed as a dichotomy between 'illiterates' and 'literates' — indicate that the scale and scope of the global literacy challenge are greater than previously thought (UNESCO 2006).

4.9 Literacy Rates for Adults

Adult literacy refers to the number of persons aged 20 years and above who can both read and write and understand a short simple statement on their everyday life, divided by the population in that group.

Figure 41 illustrates the percentage of literate adults over 2002 to 2011. The literacy rates for adults have gradually increased from 73% in 2002 to 82.6% in 2011.

Figure 41: Literacy Rates for Adults



Source: General Household Survey, 2002 – 2011, Statistics South Africa

According to Table 15, the percentage of literate adults per province gradually increased over the period in review, 2002 to 2011. In 2002, Gauteng had highest percentage of adults who were literate at 86%, followed by Western Cape at 82%. The lowest percentage of literate adults by province was in the Northern Cape (64%). In 2011, Gauteng and the Western Cape had the highest percentage rate of adults who were literate at 92% and 90% respectively (Table 15). In 2011, the lowest percentage of literate adults by province was in the Northern Cape (74%). In 2002, Limpopo had the lowest percentage of literate adults.

The gap between the province with the highest percentage of literate adults and the one with the lowest is huge; it is well over fifteen percentage points thus indicating that in this province there are more adults who have limited life opportunities.

Table 15: Literacy Rates for Adults per Province, 2002 to 2011

Province	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Eastern Cape	64.9	66.2	66.6	68.8	69.7	71.4	73.5	74.8	75.1	76.1
Free State	69.4	73.2	73.7	73.7	76.9	78.3	76.8	79.5	79.5	81.4
Gauteng	86.1	87.8	88.1	86.9	86.6	86.6	87.9	89.9	90.7	91.5
KwaZulu-Natal	69.6	71.4	72.3	72.4	73.3	74.6	75.0	78.4	79.5	80.0
Limpopo	63.7	66.9	69.0	70.2	71.1	72.5	70.0	74.2	74.4	75.9
Mpumalanga	66.6	67.8	69.0	69.9	70.2	72.1	72.8	77.4	78.1	79.2
North West	66.4	67.6	66.2	68.7	70.3	71.1	68.8	73.7	74.1	74.8
Northern Cape	64.0	64.4	66.1	67.3	68.9	68.3	68.5	72.3	72.1	74.3
Western Cape	82.0	83.4	83.3	85.5	84.5	85.2	86.3	88.6	89.9	90.2
South Africa	73.0	74.9	75.4	76.2	76.8	77.7	78.0	81.0	81.7	82.6

Source: General Household Survey, 2002 – 2011, Statistics South Africa

4.9.1 Literacy Rates of Adults by Gender from 2002 to 2011

The percentage of literate adults by gender is provided in Table 16 from 2002 to 2012. There were more male adults who achieved literacy annually, 2002 to 2011, than females. Even though there are more adult males who are literate than females, throughout the nine year period, the increases in the adult literacy rates of the two groups were equal. Both gained ten percentage points. The adult literacy rate for males increased from 74% to 84% and for females from 72% to 82%.

Table 16: Literacy rates of Adults by Gender from 2002 to 2011

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Male	74.1	76.4	76.3	77.8	78.1	78.8	79.7	82.3	82.9	83.5
Female	72.1	73.5	74.7	74.7	75.6	76.8	76.5	79.8	80.6	81.7

Source: General Household Survey, 2002 – 2011, Statistics South Africa

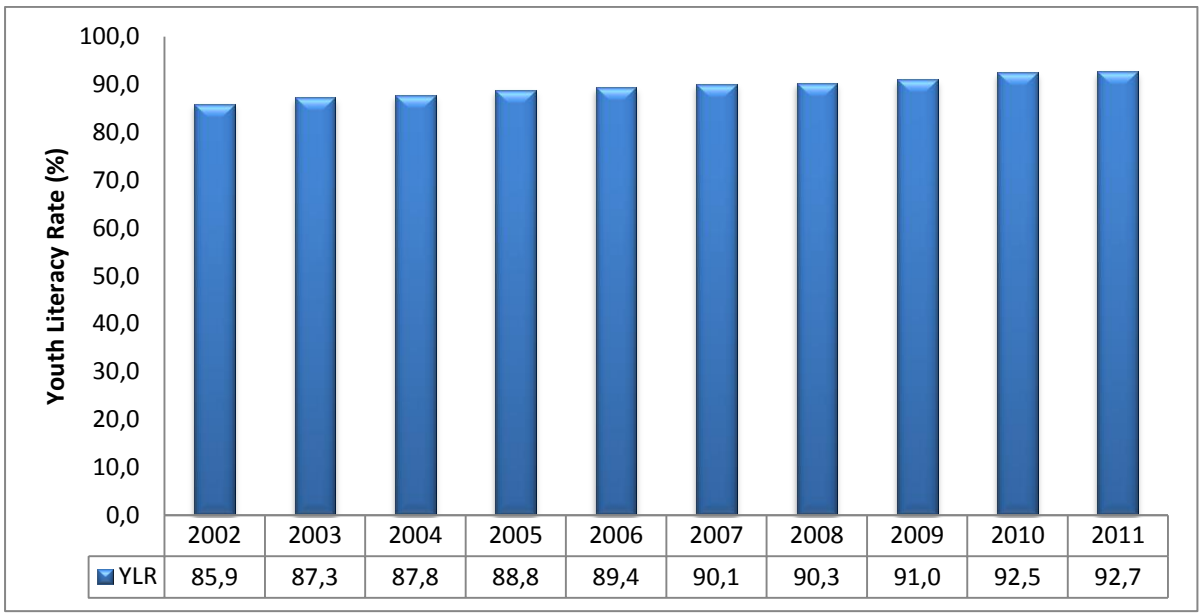
The impact of literacy on the economic and social improvement of individuals is acknowledged, with special emphasis on the matter of female literacy, which is known to improve health in households, and better enrolment ratios for girls (Gustafson et al. 2009).

4.9.2 Youth Functional Literacy Rate

Youth literacy rate is an extremely important indicator. Illiteracy has the same effects on anyone; limiting opportunities to develop or maintain literacy skills and restricting opportunities in life. Literacy rate refers to the number of persons aged 15-24 years who can both read, write and understand a short simple statement on their everyday life, divided by the population in that group. Literacy also considers numeracy which is the ability to undertake simple arithmetic calculations (Department of Basic Education, 2012).

Figure 42 shows the percentage of youth aged 15 to 24 years who are literate over the period 2002 to 2011. In 2002, 86% of the 15 to 24 year olds were literate. The literacy rate for youth aged 15 to 24 years of age increased from 85.9% to 93% in 2011. Youth literacy gradually improved over the 10 year period under review.

Figure 42: Youth functional Literacy Rate ages 15 to 24 (2002-2011)



Source: General Household Survey, 2002 – 2011, Statistics South Africa

Table 17 shows the percentage of youth aged 15 to 24 years who were literate by province for the period 2002 to 2011. In 2002, Gauteng had the highest literacy rate for youths, 94%, followed by the Western Cape with a youth literacy rate of 92%. The Eastern Cape had the lowest youth literacy rate in 2002 at 74%.

Even though the literary rate for youth has increased from 2002 to 2011 in all provinces the trend in terms of the provincial composition of literacy remains similar to that in 2002. The trends are similar to the trends for adult literacy. In 2011, Gauteng had the highest literacy rate for youths, 97%, followed by the Western Cape with a youth literacy rate of 96% while the Eastern Cape still had the lowest youth literacy rate at 86% (Table 17).

Table 17: Youth functional Literacy Rate ages 15 to 24 by Province (2002-2011)

Province	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Eastern Cape	74.0	75.4	74.2	79.0	80.2	82.8	82.9	83.0	85.4	86.2
Free State	85.5	86.7	90.5	89.9	91.0	90.3	90.9	93.6	93.8	93.6
Gauteng	93.7	94.2	94.4	94.9	94.2	94.8	95.6	95.4	96.4	97.0
KwaZulu-Natal	86.1	88.2	88.6	89.2	89.8	90.8	89.9	90.4	92.5	92.9
Limpopo	87.3	88.5	90.5	89.5	91.0	91.3	90.4	91.8	92.6	93.4
Mpumalanga	84.2	84.9	88.1	89.9	89.3	90.5	90.3	91.6	92.7	91.4
North West	82.5	86.0	84.6	83.1	85.2	87.4	88.6	90.4	90.4	90.8
Northern Cape	80.8	82.0	83.7	86.8	86.6	86.3	86.0	89.0	92.5	91.3
Western Cape	91.7	92.8	91.9	93.7	94.4	92.2	93.9	94.8	96.2	95.5
South Africa	85.9	87.3	87.8	88.8	89.4	90.1	90.3	91.0	92.5	92.7

Source: General Household Survey, 2002 – 2011, Statistics South Africa

Table 18 shows that more unlike the case of adults, there were more female youth that were literate over the period 2002 to 2011 than male youth. The youth literacy rate for females increased from 88% in 2002 to 95% in 2011 and for males from 83% in 2002 to 91% in 2011.

Table 18: Youth functional Literacy Rate ages 15 to 24 by Gender (2002-2011)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Male	83.3	84.7	84.9	86.6	87.3	87.6	88.5	88.9	90.4	90.7
Female	88.4	89.7	90.5	90.9	91.4	92.5	92.0	93.1	94.6	94.6
Total	85.9	87.3	87.8	88.8	89.4	90.1	90.3	91.0	92.5	92.7

Source: General Household Survey, 2002 – 2011, Statistics South Africa

Low levels of literacy and education in general, can impede the economic development of a country in the current rapidly changing, technology-driven world. Literacy rates increase significantly as the levels of completed schooling increase.

Even though the secondary school completion rate is fairly low in South Africa, the youth literacy rate is on average close to 93%. High repeater rates accompanied by high dropout rates especially in grades 10 and 11 are attributable for the low secondary completion rate. There has been a concerted effort by government to increase participation in Further Education and Training Colleges with the aim at expanding job opportunities so as to build sustainable livelihoods and to ensure the competency of those individuals entering the job market.

Important factors that may be affecting the improvement in the youth literacy rates are the higher skill levels required for many jobs and the correspondingly higher educational levels

expected of potential employees, hence the focus on greater FET college enrolment. It is evident that higher-level skills and more credentials are needed for employment that offers a living wage.

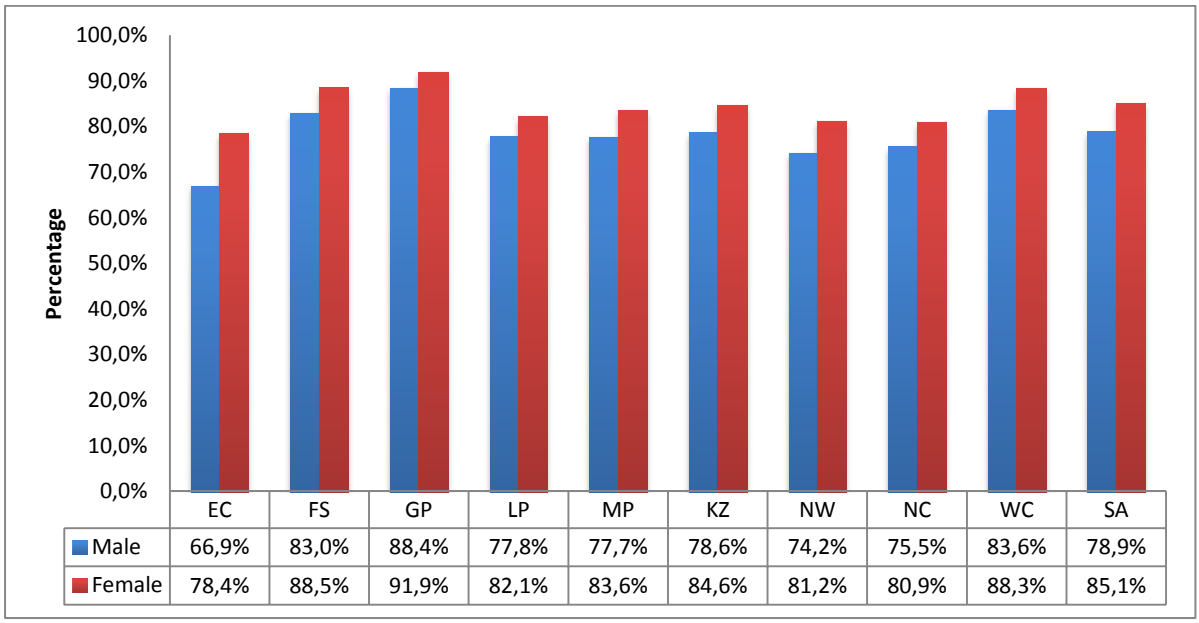
4.9.3 Literacy Rate for People with Disabilities

Around 10 per cent of the world's population, or 650 million people, have a disability. They are the world's largest minority. The global literacy rate for adults with disabilities is as low as 3 per cent and 1 per cent for women with disabilities, according to a 1998 UNDP study. In many countries, people with disabilities have difficulty accessing education. Many are illiterate and unable to read.

Figure 43 shows the literacy rate among people aged 15 to 24 with disabilities disaggregated by province and gender in 2011. Females had higher levels of literacy in 2011 than males, 85% and 79% respectively.

The provinces with the highest literacy rates among the disabled were Gauteng followed by the Western Cape and Free State. Males and females in Gauteng showed the highest literacy levels within their respective genders nationally at 88% and 92% respectively. The only other two provinces who had higher literacy levels for both male and females than the national average were the Western Cape and Free State.

Figure 43: Literacy Rates of People with Disabilities by Gender, 2011



	EC	FS	GP	LP	MP	KZ	NW	NC	WC	SA
Male	66,9%	83,0%	88,4%	77,8%	77,7%	78,6%	74,2%	75,5%	83,6%	78,9%
Female	78,4%	88,5%	91,9%	82,1%	83,6%	84,6%	81,2%	80,9%	88,3%	85,1%

Source: General Household Survey, 2002 – 2011, Statistics South Africa

Information on literacy, while not a perfect measure of educational results, is probably the most easily available and valid for international comparisons. UNESCO 2012 Report on Adult and Youth Literacy, 1990 -2105, cautions on the overreliance of self-reporting by survey respondents for themselves and other members in a household which may lead to an overestimation of literacy rates. To obtain more accurate information on literacy skills, some surveys, including recent DHS and MICS surveys, have begun to apply a simple reading test

(ORC Macro 2006; UNICEF 2006). Respondents are asked to read a card with a short, simple sentence in their language. The result is recorded as one of three options: (1) cannot read at all, (2) able to read only parts of the sentence, or (3) able to read the whole sentence. A comparison of data collected with both methods (self-reporting and reading test) shows that the number of persons who can read a simple sentence is usually lower than the number of persons who claim to be able to read and write. In UIS statistics based on such reading tests, only persons who can read an entire sentence are counted as literate.

CONCLUSION

If access to education is used as the only indicator to determine the wellness of our education system then the system is deprived of the opportunity to get a proper diagnostic as well as to improve. The three MDG indicators focus on access and not on the state of the system's efficiency and the quality of education provided. That hides the problems in the system.

The system is not effective and is not efficient. The completion or graduation rates are not commensurate with the enrolments; they are low and the lower levels of the system are not producing strong candidates to perform well when they get to the senior levels, such as FET and University. The problem of underperforming starts in the foundation phase and it gets worse by the time the learners get to Grade 9. Instead of implementing programmes that aim at improving performance in Grades 10 and 11, schools tend to weed the poor performers out in these two grades. When we disaggregate by provinces, it becomes clear that the problem is more pronounced in the rural and poorer provinces with the urban provinces as well as the metropolitan areas performing much better.

Rural provinces continue to be disadvantaged as they have poorer resources compared to their urban counterparts. The same provinces that struggle with regards to learner performance seem to be the ones that are hardest hit by infrastructural and quality related challenges. Going forward, there is a strong need for ensuring that efficiency and quality are prioritized in policies. All schools must have access to the same resources as schools in the urban provinces including qualified teachers teaching subjects they are qualified to teach.

The government's focus is on the mainstream sectors, schooling and HE. The other sectors especially ECD and education of people with disabilities do not get the same attention. Participation in ECD programmes and Grade R have improved nationwide. However, there are no benchmarks as yet that we could use to assess the performance of these. In the future we hope to be able to use the Grade 1 ANA scores to determine how efficient the programme is. People with disabilities have more challenges than their counterparts. Access for them is as problematic as completion.

The performance of the system with regards to the targets examined suggests that the main challenge for our education system lies at the policy implementation level or the provincial level. Where the DBE is the sole implementer, there is a level of effectiveness and achievement of targets. This could be so because there are only nine provinces for the DBE to deal with. In the case of provinces especially the rural provinces where communication is not as fast or easy as in the urban areas there seems to be a problem of coordination between the various centres.

According to the Action Plan targets, so far the system is failing to respond to the DBE targets of raising passes in certain subjects. For instance, it is failing to produce enough grade 12 mathematics and National Senior Certificate passes. This has implications for the DHET's plan to provide enough skilled workers. However, the decrease in the number of quality passes in mathematics and sciences and the number of those who enter FET colleges to train in the middle level skills needs close attention.

RECOMMENDATIONS

For the 7 to 15 year olds, the government has attained the goal of providing education access to all. This has been possible through the use of multiple strategies, such as, policy mechanisms, funding, and improving the teaching and learning environment. However, that is not enough. The DBE should consider encouraging the PEDs to incorporate districts in planning and managing the district programmes. They must draw their budgets and implement their policies under the strict watch of the province. Districts know the problematic areas and the blockages. Local communities and the business fraternity must play visible roles in solving problems in the districts especially those that are related to infrastructural matters. The PEDs can work to develop officials and support districts that are weak and allow those that are capable of managing their plan do so.

The DBE can devise ways of making sure that the nine PEDs get more reliable and up to date data that can be used by the districts to implement the policies that are in place.

Another problematic area is that of teachers and this refers to teachers for all the sectors at the levels before post-schooling. There are geographic areas where teachers for certain phases and subjects are not enough. Recruitment of teachers must focus on the locations where the problems are vast. Recruits could be identified when they are still in high school. By the time they go to train to become teachers they could train in a university close to the school they have a contract with and by the time they start teaching they could have established a relationship with the school and understand what is expected from them. Learnerships could be improved to be responsive to this.

There needs to be strong links between universities and the communities they serve. They must act as quality skills suppliers for their areas. This can be attained if the number of trainees who enrol graduate on time and join the labour market.

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