

Masters Dissertation:

An Economic Analysis of the Skills Shortage Problem in South Africa

Report presented by:

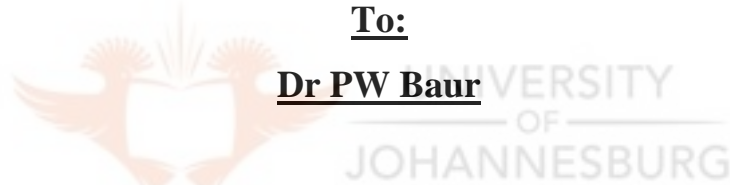
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Abstract: South Africa has experienced a long period of high unemployment. While the economy has achieved relatively higher GDP growth rates in the recent past, unfortunately not as many jobs have been created. This is because of, amongst other constraints, the skills shortage experienced. This shortage of skills is not solely the result of the emigration of professionals since the inception of the new political dispensation in 1994. This paper investigated the economic sectors showing high growth, with a view of identifying the sectors that can be promoted for high investment and hence the creation of employment for the country's labour force. The secondary and the tertiary sectors have been found to contributing more to the country's GDP growth and could create more employment opportunities if promoted by more investment. However, the unemployment experienced is mainly structural in nature and the country should concentrate on human capital development and skills development to reduce it. The education of the labour force in South Africa has been found to be concentrated in the secondary level. This has raised questions as to the ability of the country's education system to fulfil its role of empowering the labour force. More than ten years into democracy, blacks are the most disadvantaged population group regarding the levels of appropriate educational qualifications making them contribute the most to the unemployed labour force.

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Chapter 1: Problem statement

1. 1 Background to this research

The shortage of skills South Africa is experiencing has caused a chronic problem of unemployment in the country. The International Monetary Fund, hereafter referred to as IMF, country report on South Africa argues that the skills shortage in South Africa have led to high unemployment. The factors that are listed as potential causes of unemployment are the legacy of apartheid and the shortage of skilled labour (IMF 2007: 19). It can be argued further that the skills shortage that currently exists may have been caused by, amongst other factors, the decisions taken in the previous political dispensation. Education in South Africa was differentiated along racial lines and between gender groups (Moleke 2005: 4). According to Barker (2003: 5) the high unemployment rate that South Africa is experiencing has been caused by, amongst other factors, increasing capital intensity, trade liberalisation, high labour costs and HIV/AIDS. Barker also argues that unemployment is higher amongst the uneducated, who are mainly black.

The job market will favour people with a good education and who possess the right skills for the job. The poorly educated and the uneducated will be the ones most affected by the unemployment. The unequal education that was previously afforded other races in South Africa has led to poor quality of education for blacks (Mallet 2000: 2). This has further led to an unequal distribution of income, unemployment and high levels of poverty in the country.

The emigration of professionals may have also contributed to the skills shortages. Many people left the country during the advent of the new political dispensation, fearing the implementation of affirmative action policies and harbouring insecurities about the new government (Lamont 2001: 2). Crush (2002: 4) also supports the view that the exodus of professionals was as a result of affirmative action policies. A survey of companies in South Africa showed that, in the years after the democratic elections of 1994, brain drain became the biggest threat to industry in South Africa. It was not only the financial

services sector that lost skills but also many other sectors of the economy (Lamont 2001: 2). The country is still losing skills, especially in the health services sector, and Crush (2002: 4) points out that South Africa has lost 50 000 professionals between the years 1987 and 2001.

An overview of the skills shortage requires a discussion of the historical background of South Africa. This must be done in order to establish the causes of the current problem of unemployment which the country is facing. The nation is not only experiencing shortages of skills, currently but also huge imbalances in the area of human capital development. Education is the weapon used to acquire skills and make workers competitive (Van der Colf 2004: 7). A significant number of jobs need a particular level of education for the incumbent to be able to perform certain duties. If the kind of education supplied is not appropriate to the kind of skills needed then the country's goal of producing a competitive labour force will not be realised.

Lamont (2001: 2) argues that in the South African situation the supply of skills is closely tied to race. He further argues that economic growth cannot be sustained because over 50% of companies are experiencing skills shortage. Furthermore he argues that training has to be promoted and immigration encouraged so the country can take full advantage of trading in the African market.

Many economists agree that the macro-economic fundamentals put in place are good for growth encouragement and pleasing to business (Barker 2003: 318). The IMF also shares the same view in its 2006 report on South Africa. This report was also positive on the outlook of the economy and confident of the economic fundamentals put in place in the country (Boyle 2006: 11). However the shortages of skills will curb a high growth environment. There are some economists who do not support the macro-economic changes brought about by government. The critique of the government's economic policies maintain that the economic policies of the African National Congress, hereafter referred to as ANC, government have only made the poor poorer. Bond (2005: 254) argues that the policies implemented by the government during the period 1994 to 2004

were hostile to the majority of the country's people. He maintains that these policies have not helped the social plight of the poor and, as a result, government has failed to deliver.

The economy experienced relatively good growth of about 5% in 2006 but not many jobs were created (Gauteng Provincial Treasury 2007: 1). The government has initiated a few projects for skills development in order to curb the unemployment problem and halve poverty. The challenge facing the country is for government to suitably intervene to find a solution in an amicable way and not to replace one form of discrimination with another.

The world has become a global village now demanding that the knowledge of workers be harnessed and made a competitive resource for the economy (Jinabhai 2005: 2). South Africa is said to have poor development of skills, which is manifested in the lack of competitiveness by the workforce. In agreement, Van der Colf (2004: 7) also argues that, for South Africa to benefit from globalisation, the country has to become involved in long-term training. South Africa has to harness its education system and skills development programmes. By harnessing its education system, the country can achieve its objective of long-term training and human capital can be empowered. Furthermore, Van der Colf (2004: 7) argues that the competitiveness of firms in the global village is a function of education, level of training and the quality of human resource development.

1. 2 Research aims and objectives

The aim of this research is to analyse the current problem of skills shortage in the South African economy. An in-depth investigation at the factors that may have contributed to the skills shortage will be undertaken. The identification of factors that led to the problems of skills shortages is important in order to seek solutions and help eliminate the problem. A further aim is to devise a solution that will see the process of skills development being sustainable.

The theory of human capital forms the basis of this research as the education of the labour force is important in the acquisition of skills. The human capital theory will be

analysed because skills acquisition can be achieved by means of exposure to the appropriate level of education. The levels of employment and unemployment are related to the skills shortage and will therefore be analysed in order to get a sense of the effect of the skills shortage in the economy. Identifying the economic sectors that contribute more to the gross domestic product, hereafter referred to as GDP, is important in order for such sectors to be promoted. By increasing investment in the high performance sectors, such sectors can be promoted and economic growth increased. The increase in economic growth will lead to more employment and hence reduce the high unemployment rate.

1.3 Research design and methodology

The approach taken in this research is the use of secondary data dealing with literature on skills shortages and unemployment problems experienced in South Africa. This study will look at the initiatives undertaken by government to address the skills shortage. Information on the South African education system and its ability to equip people with skills will also be analysed.

The data collection technique to be followed in the research will firstly be the use of literature that already exists about the skills shortage and unemployment. The documentation used will be in the form of journals, books and information available on the internet. The economic performance of the different sectors of the economy will be analysed to ascertain the sectors that are currently experiencing a higher level of growth. The assumption that underpins this research is that the sectors that are experiencing a higher level of growth are expected to be employing more labour. The analysis of the different sectors of the economy will be done with the aim of identifying those skills that will be beneficial for employment creation in the high-growth industries. In this way necessary skills can be developed and transferred rather than just equipping people with skills that may not be needed in the market place. This process will ensure that the skills needed are the ones promoted by the government initiatives of fast tracking skills acquisition for the country's unemployed.

1. 4 Importance of the study

The economy of South Africa has started showing signs of recovery. This is seen by the increasing GDP growth of 4.8% and 5.1% in the years 2004 and 2005 respectively (Gauteng Provincial Treasury 2007: 1). The South African Reserve Bank, hereafter referred to as the SARB, reported that the momentum of growth continued in 2006 with a slightly lower GDP growth of 5% (SARB (1) 2007: 1). However, the country is still experiencing high levels of unemployment at levels of 25.5% (StatsSA 2007: V). The growth that the country is experiencing will be of no help if it does not contribute to decreasing the high unemployment level and thus alleviate poverty.

The government has introduced initiatives to tackle the problem of unemployment. The skills acquisition issue features as a high-priority issue on the government's agenda. For the government to succeed in its intentions this time, thorough research has to be done on the right approach for the skills acquisition. So much capital will be invested in the skills acquisition endeavour and it is only proper for relevant research to be conducted. The economic sectors that are contributing more to growth and that are able to absorb more labour should be identified. The critical skills needed in these high-growth sectors must be identified and promoted.

By conducting the right type of research, the right plan of action can be devised. Then the type of skills needed, is identified and investment can therefore be made in the right industries. This kind of research can be a point of reference for the government in the pursuit of its objectives of employment facilitation. The research is useful in this era where government needs direction in the achievement of the economic growth target of 2014 with the intention of halving unemployment and poverty levels (South African Government Information 2006: 2).

Another opportunity of increased economic growth, has presented itself in South Africa's hosting of the Soccer World Cup event of 2010. This event will present opportunities that this country needs to exploit to achieve higher economic growth. By encouraging the

acquisition of the right skills and aid in the up-skilling of the unemployed, the unemployment problem can be better tackled. It is of no use equipping people with skills that may not be useful.

Based on the above-mentioned reasons this research is both relevant and necessary within the larger national context. If properly carried out this research can be one of the fine prints or points of reference for the achievements of the government's objectives.

The government has taken the initiative of reducing the skills shortage problem and helping create jobs for the unemployed (South African Government Information 2006: 7). However, the approach taken is not a proactive one as analysis of the high-growth economic sectors is not undertaken. This research will look at the economic sectors that contribute the most to the GDP growth and employment of labour in order to identify the sectors to be promoted.

1. 5 Outline of the study



Chapter 2 looks at the theory of human capital. An extensive qualitative analysis of human capital theory, in order to examine skills acquisition and the appropriate level of education required to maximise the benefits of development, follows. The chapter also investigates the current problem associated with the skills shortages in the South African economy. The objective in this regard is to investigate the reasons that led to the problem of skills shortages. The South African labour market will also be discussed.

Chapter 3 will examine the real rates of employment and unemployment in South Africa. Employment will be analysed within the different sectors in the economy and according to education and the racial groups in the country. This will be done in order to determine whether the racial segregation of the past still has an effect on the labour market.

Chapter 4 looks at the shift of the South African economy from the primary to the secondary and tertiary sectors. By identifying the growing sub-sectors, investment can be

channelled in the right direction and critical skills that are needed can be identified. The high-growth industries will be compared against high employing industries. This exercise will help us to identify the type of unemployment that South Africa is experiencing and how best the unemployment problem can be tackled.

Chapter 5 will summarise the findings of the research in order to answer the question raised by the research. The main findings regarding the reasons for the shortages of skills and the high unemployment will be given. Conclusions will be made regarding ways of dealing with some of the issues like unemployment. The research will also identify possible areas of future research.



Chapter 2: Human capital theory and the emigration of skills in South Africa

2.1. Introduction

The aim of this chapter is to examine human capital theory, within the context of its important role in explaining the skills shortage that currently exists in South Africa. For workers to attain the relevant skills, they must be exposed to a higher level of education. In the event certain levels of education are not reached by the workers, they will possess skills that may be below the labour market's needs. In the South African situation there has been a continued problem of emigration of professionals (Crush 2002: 4). This emigration contributes to the skills shortage the country is experiencing. It is important that we analyse this emigration with a view of identifying the causes and possible solutions to the skills shortage.

The South African labour market will also be looked at to analyse the conditions that prevail in that market. It has to be established whether the right conditions exist in the market. The reality of inflexible labour market regulations in the economy will influence employment negatively because such regulations can be counter-productive (Nevin 2006: 45). Labour flexibility has to do with the ease with which the employer is able to alter working conditions in order to meet the demands of business (Barker 2003: 30). Inflexible labour market laws lead to higher labour costs and employers are unable to fire workers easily.

For the purposes of this research, skilled workers refer to workers who have attained university degrees, college and technikon diplomas. Further assumptions are that most of these workers are specialists in their fields of work. These professionals have also acquired further experience from working in their fields for a considerable number of years. New graduates are also professionals but this research will not include that category because, in most cases, companies require working experience when recruiting staff. Furthermore a new graduate may need time to acquire the necessary experience

before becoming proficient in his/her field of work. To broaden the definition of skilled workers, some professionals could be people who were in family businesses and were mentored by family members to attain levels of competency equivalent to college or university education.

According to the Economist Intelligent Unit, hereafter referred to as EIU, the skills shortage is one of the major problems faced by the South African economy and is threatening the achievement of higher GDP growth (EIU 2006: 1). There may be many other factors that contributed to the problems of the skills shortage in the country. It is however not possible to conduct research that explores all the other factors but this research has identified the few highlighted points. Out of the identified fields an argument will be developed in the coming chapters as to the factors contributing more to the skills shortage. In this way a solution to this problem can be found and perhaps areas of further research identified.

This chapter begins with the theory of human capital and its relevance in the South African context situation. That will be followed by a look at the emigration of professionals from the country. The South African investor climate and the labour market laws will also be analysed.

2.2. The human capital theory and its importance for this research

Human capital forms the core of all business operations because workers who have the right skills will be able to operate a business efficiently. The shareholders of a business form part of the human capital. The shareholders make an investment into a business for the profit motive. Workers also form another part of the human capital as they are the ones who will drive the production process with the help of capital (Barker 2003: 246).

The relationship between education, economic growth and development is a positive one. According to the human capital theory, education (human capital investment) and the

acquisition of skills can lead to higher productivity and higher earnings as argued by Barker (2003: 246).

Any kind of investment entails an outlay of initial capital with the hope of earning returns on the investment. Ehrenberg and Smith (2006: 275) argue that capital is invested in education with the hope of recouping the benefits in the near future. Furthermore, education and training not only provide for current benefits but also long-term money rewards (Barker 2003: 246). Education and training is believed to increase a person's stock of human capital and consequently the individual's productive capacity. The increase in a person's productive capacity corresponds with the increase in earnings. Therefore a positive relationship can be seen amongst the three concepts: education, higher productivity and higher earnings.

The analysis presented shows the positive relationship between investment in the education of human capital and productivity (Ehrenberg and Smith 2006: 288). The investment should be relevant to the needs of the labour market. If the needs of the labour market are overlooked and the education acquired is not according to the needs of the market, then the labour force will not be absorbed. In this way the investment will not deliver returns to the investor.

However, in every economic theory there is cost-benefit analysis. The costs in human capital investment results from tuition fees and the forgone income that a person loses during the studying period. The benefits would be the increased remuneration or salary earned by the employee later on. Ehrenberg and Smith (2006: 277) divide the costs associated with human capital investment into three areas: the tuition costs, the loss in forgone earnings and the psychological loss associated with the difficulty of learning. The benefits of education and training are said to be higher productivity, and in the long-run higher earnings for the holder of such education. The costs have to be compared with the increased earnings in order to determine the profitability of the investment (Barker 2003: 247).

The profitability of investment in education can be debated. Todaro (2000: 339) illustrates the differences between the social and private benefits as well as the costs of education. The argument is that in developing countries, social costs of education increase more rapidly than private costs as students move up the educational ladder. This is as a result of the government using funds to finance education rather than the funds being used for productive purposes in other sectors of the economy. Todaro (2000: 339) argues that in the long run, resources may be allocated to educational expansion at the cost of creating new jobs. The counter-argument would be the fact that, as the nation becomes more educated, such a nation would be more productive, leading to an increase in national production. The increase in national production will lead to an increase in the demand for goods and services and thus the creation of more employment opportunities.

A higher quality of labour also leads to a higher increase in the output of the economy. The higher quality of labour is also a function of the quality of education one has. Jinabhai (2005: 2) argues that skill acquisition enables employees to keep abreast of technological changes and all their benefits. Studies conducted elsewhere in the world have shown that college graduates earn an increased return on their investment in human capital (Barker 2003: 248). Having looked at the positive relationship between the concepts of education and higher productivity, a look at the education system of the country becomes necessary. An analysis of the education system will indicate the effectiveness of that system. This will also help with the identification of shortcomings in the system, if any, and how to overcome such shortcomings.

2.2.1 Lack of critical skills in the economy

Barker (2003: 256) argues that the South African education system is awarding more university degrees in social sciences than in commerce, science and engineering. In this way the need that exists for engineers and scientists is not being addressed properly by tertiary institutions. There is currently a shortage of engineers and scientists in the country (Bleby 2006: 2). The shortage of skills is felt in most levels of production.

Research done by Woolard, Kneebone & Lee (2003: 462) found that there is an increase in the demand for high level human resources occupations. These occupations include engineers, accountants and auditors, specialist managers and IT technicians. The research concluded by alluding to the fact that the country's education system has to produce according to the needs of employers. Taking into consideration the level of unemployment in the country, it can be argued that the education system may be concentrating on skills that are not in high demand in the market. There is currently an initiative for the economy to concentrate more on infrastructure development as very little investment in infrastructure has been undertaken in South Africa (Bleby 2006: 11).

This investment in infrastructural development requires skilled professionals. An infrastructural development of such magnitude requires the services of qualified engineers (Nevin 2006: 45). As a result of the skills shortage, the country is unable to come up to speed with the technical demands of most projects. There are huge gaps in the supply of qualified professionals needed to do the required jobs. To compound the problems, most of the municipalities in the country lack capacity to provide crucial services expected by communities. In the recent past the country has seen demonstrations by communities that are dissatisfied with the levels of service delivery by municipalities (Gauteng Provincial Treasury 2006: 59). Municipalities are unable to provide the services that are required because of lack of capacity. The inability to provide services to communities is further proof of the lack of skills in the different sectors of the economy.

The gap in the supply of engineers may have been created by the flaws in the education system. There is a shortage of properly trained educators in the field of mathematics and science in the previously disadvantaged schools (Barker 2003: 254). Previously, many children were not encouraged to study maths and sciences and as a result there are insufficient maths and science teachers (Mallet 2000: 1). Although the situation may be changing now, there is still a shortage of mathematics teachers in most schools. As a result, most of the matriculants do not have a mathematics and science background (Barker 2003: 255). Such learners can therefore not participate in the faculties of science and mathematics in institutions of higher learning.

Econometrix (Pty) Ltd, an economic analysis company based in Johannesburg, compiled data from Statistics South Africa, hereafter referred to as StatsSA, on the number of mathematics matriculants the country is able to produce currently. The research comprised following a group of pupils from when they started their school careers to when they matriculated 12 years later. The presentation of the results shows the inability of schools to achieve a 100% matriculation finish for children starting school. The research was done by comparing the numbers of children who started school in 1995 to those expected to finish grade 12 in 2006. Table 2.1 shows the finding (Econometrix 2007: 119).

Table 2.1 Education results in public schools, 2006

Began school in 1995	1.7 Million children	Percentage 100%
Matriculants 2006	528 525	31%
Passed matric	351 503	21%
University exemptions	85 830	5%

Source: Econometrix presentation, 2007

According to the table, about 1.7 million children started their schooling (grade 1) in 1995. Of this number only, 529 000 could make it to the matriculation exams in the appropriate year. This figure equates to about 31% of the initial 1.7 million who started school in 1995.

The situation explained above paints a bleak picture: not even half of the children that start school will finish in the right year. Out of the group, about 352 000 wrote exams and passed matric. Expressing this figure as a percentage, we find that only 21% of original group passed matric. This is just an ordinary pass and without specifying admittance into university. Only 86 000 of this group managed to obtain university exemptions (complied with university entrance requirements). According to the results of the research only 5% of the 1.7 million children were able to obtain university entrance passes. A report by the South African Institute of Race Relations, hereafter referred to as SAIRR (2007: 2) shows that blacks constitute the largest number of scholars and are the worst performers. The

SAIRR argues that only 11.6% of Black matriculants obtained university entrance passes in 1995.

The poor performance at secondary school level leads to negative implications for tertiary education enrolments and performance as well. According to Kraak (2003: 678), the enrolments of engineers in technikons have been declining. This decline is coupled with the decrease of throughput in engineering fields. These declines continue to highlight the challenging situation the country may be facing regarding the replacement of lost skills and building solid reserves of skills in the light of infrastructural projects to be carried out as indicated earlier.

The problem of educational performance does not only start at the level of tertiary education. The primary education level is not without its shortcomings too. Research conducted by the SAIRR (2002: 1) showed that enrolments for children in primary schools have been declining and by 2000 such enrolments had decreased by 7%. The same report by SAIRR indicates that more children are not entering school at the right age in the grades 1 and 2 levels.

Turning this situation around involves many stakeholders, starting with the primary education level and changing mindsets in the whole education system. Career guidance education has to play a positive role in the schooling system in order for learners to attain information at an early age (South African Government Information 2006: 7).

The shortage of skills South Africa is experiencing is negatively affecting the country's securing much needed foreign direct investment, hereafter referred to as FDI (Sowinski 2006: 3 and Mallet 2000: 2). Labour quality plays a significant role in the attraction of FDI to a country. Arvanitis (2006: 73) argues that the weaker levels of skills in South Africa are slowing the rate of FDI flow into the country. The shortage of skills is creating barriers to production and in this way foreign companies are unable to maximise their productive capacities. South Africa will not be able to take its rightful position in the global community with the current levels of skills shortage. This skills shortage is

hampering the economic growth this country could attain without the barriers in production.

The lack of skilled labour means that the country is not able to attain a higher level of production, meaning the production capacity may be underutilised. The shortage of skills is limiting economic growth because the economy cannot operate to its full potential. When talking about the factors that are impeding high economic growth in South Africa crime can not be omitted. A study done by the World Bank identified the skills shortage and crime as the major barriers to economic growth (Lamont 2001: 2). However, the government has initiated skills development programmes that are aiming to turn the situation around.

2.2.2 Skills development initiatives by the government

According to Jinabhai (2005: 1) globalisation of the world economies has compelled SA to initiate skills development. The argument is that the skills development programmes have been initiated to make the South African nation competitive. Most of the organisations in South Africa are starting to recognise the shortages of highly skilled personnel and suffering the consequences thereof. The adequacy and compatibility of the education system with the present day economic needs are also being questioned as argued earlier.

The government introduced the Skills Development Act (No 9 of 1988) as a measure to help with the training and development of the workforce. The employer organisations are required by the Skills Development Act and the Development Levies Act (No 9 of 1999), to set aside a portion of their annual payroll in order that workers can benefit from training and development resulting from such funds (Jinabhai 2005: 1). The National Skills Authority was formed to oversee the implementation of the skills development and reporting of progress to the Sector Education and Training Authorities (SETA).

The government introduced another intervention mechanism for skills acquisition, called learnerships (Kraak 2003: 681). Learnerships aim to train first-time entrants into the

labour market so they can acquire exposure in their fields of employ. The process requires partnership by government and the private sector. For the right skills to be acquired these apprentices need to learn mostly in the private sector environment as the government alone would not have capacity to put through the kind of training needed. These processes of learnerships started as far back as 2001 and it remains to be seen how successful the project would turn out to be. This is indeed a positive initiative that will go a long way in helping build up skills capacity in the country.

To boost economic growth in the country, achieve a 6% growth and halve unemployment and poverty by 2014, the government launched an initiative at the beginning of 2006. This latest programme is called the Accelerated Shared Growth Initiative for South Africa, hereafter referred to as AsgiSA. However, it will not be possible to realise this kind of growth with the current shortage of skills (Nevin 2006: 45). In order to prioritise the skills requirements as per AsgiSA, another programme, the Joint Initiative for Priority Skills Acquisition, hereafter referred to as Jipsa, was launched by the government, to work in conjunction with AsgiSA (South African Government Information 2006: 1-13). Jipsa will identify the shortages of skills and facilitate the transference of such skills so that the objectives of higher growth can be achieved. If people are not skilled and do not have the right experience to perform a job, the set objectives for AsgiSA will not be realised.

Jipsa was started to help speed up the immediate and medium-term skills development (Pela 2006: 1). Jipsa is called the empowerment arm of AsgiSA. This programme has been given 18 months (from March 2006) to turn the tide against the skills shortage (South African Government Information, 2006: 1-13). The composition of the task team of Jipsa is very diverse, consisting of government, the youth, organised labour and academics, amongst others. The government's attitude is for the project to succeed at all costs. The importance of the project is also emphasised by the fact that the deputy president of the country is the one in charge.

The government is therefore very involved in encouraging business and employers to become involved in the skills development of the workforce. Jinabhai (2005: 2) argues that training and development have only recently started receiving attention in South Africa and that companies are also incorporating the skills development into their business plans and budgets. It was argued earlier that skills acquisition is closely related to education. South Africa's political past has led to most blacks being disadvantaged and having lower educational qualifications.

2.2.3 The effect of apartheid on black education

South Africa comes from a difficult era of apartheid where some sections of the population were disadvantaged on many fronts. The education of black people was inferior and of very poor quality (Mallet 2000: 2). The coloured and Indian populations were also discriminated against, although blacks were the worst affected by those policies. In order to increase the productivity of the workforce, South Africa must train and develop its workforce. It is also important to make black workers the ones benefiting more from such training because of the historical background of the country.

These policies of the past have also led to high inter-racial income differences in South Africa. According to Bond (2005: 266), income distribution inequality became worse after South Africa's new political dispensation in 1994. Bond argues that the real incomes of blacks fell whereas the incomes of whites increased during the period 1995 and 2000. The macro-economic policies of restricting social spending are blamed for the decrease in blacks' incomes during this period. However, skilled blacks have moved into high paying jobs whereas the unskilled are still living in poverty as McCord (2003: 37) argues. Lynham and Cunningham (2004: 1) argue that South Africa is under pressure to perform and be internationally more competitive. These authors call for the country to educate, train and develop its labour force and argue that economic growth in the country cannot only be realised through the exploitation of the natural resources anymore.

The discussion on the topic of human capital theory indicates that the situation in South Africa is to a large extent not well managed. There is still more to do in order for this country to develop its human resource potential. However there may be more factors contributing to the problem of skills shortages than human capital only. The emigration of professionals South Africa is experiencing is further worsening the loss of skills.

2.3 The continuing emigration of professionals from South Africa

South Africa has been losing professionals through emigration even before the democratic dispensation of 1994 (Bailey 2003: 235). However the country was experiencing a net inflow of professionals nonetheless. Previously, even though skills were lost there were skilled professionals who were continuously coming into the country. This situation changed after 1994 as more professionals left South Africa and there were restrictions placed on admitting foreign professionals into the country. Stern and Szalontai (2006: 126) make a point that 118 000 skilled professionals have been lost since the 90's. A situation was created therefore where there were many professionals leaving the country without a replacement.

Why wouldn't some of the people (who are leaving the country now) leave during apartheid? The apartheid system was protecting such people and they enjoyed privileges (Innocenti 2004: 6). Some of these people never thought a black government had a chance of succeeding. Now that we have democracy where people are treated the same and some people have lost privileges, such people (not trusting a black government either) will go start new lives elsewhere. There are also arguments suggesting that the South African government's black economic empowerment initiative is driving white professionals out of the country.

Baruch, Budhwar & Khatri (2007: 1) describe the phenomenon of skills emigration as a situation where people of high skill level or high qualifications leave their country and emigrate. What characterises the current situation as 'brain drain' is the fact that the individual is educated in a particular field making them a specialist or a person may not

have the education but possesses specialist skills and experience. The emigration of skills used to occur where students from developing countries would not go back to their countries of origin after studying overseas. This would mean a loss on investment for the developing country. It has been argued that pursuing educational qualification is an investment. The investment is undertaken with the hope of realising returns later on (Ehrenberg and Smith 2006: 275).

The resources invested to provide a person with education and training are lost in the event the individual decides not to return to the investor who subsidised their education. The government is an investor in South African education as all public education is partially subsidised. The situation in South Africa is different: the people who leave are mostly those who were staying and working in the country already and not students who have completed their studies elsewhere. Crush (2002: 148) gives a detailed illustration of how foreign countries are poaching medical professionals from South Africa, resulting in a loss of skills for the country. Globalisation has led to the mobility of people and Crush further argues that the country is losing skills at a high rate because of better prospects in developed countries.

South Africa is losing skilled professionals every year. The statistics indicate that about 118 000 skilled professionals have been lost through emigrations since the early 90s (Stern & Szalontai 2006: 126). This number is calculated as 7% of the stock of skilled personnel in the country. According to the EIU, this continuing loss of skilled professionals is posing a threat to the South African economy's strong growth (EIU 2006: 2). The impact of the loss of skill is felt in senior staff in the sales and marketing sector. The manufacturing sector also lost around 16% of senior staff executives in the 90s.

The annual outputs of universities and tertiary institutions are not able to offset these huge losses. The schooling system alone is unable to meet the delivery targets seen in terms of the number of children that finish matric in the South African schools. There is no way that the exodus of skills can be replaced by the situation depicted by these statistics. The argument presented by Barker (2003: 256) that the education system is

awarding more social science degrees can imply that the country is losing much more skills than it is producing. This could further mean that our education system is preparing less than enough trainees to fill the positions that become vacant as a result of emigration. Furthermore, it takes time for one to obtain a university qualification and become a qualified professional. Fresh from college, technician or university the professional does not have the necessary experience for the job but needs further on-the-job training.

It can be argued that entrants into the labour market are not yet fully experienced to sufficiently replace the professionals leaving. To get new entrants in the labour market on par with professionals that are already established in the job market, will take a long time. Time is needed for people to grow in the job and to reach the level where they have gathered enough expertise for the job they are doing. Provision needs to be made for the learning curve period. Based on this argument the new entrants' level of competency cannot match the level of competency of most of the professionals who are emigrating from the country. South Africa finds itself in a difficult situation where the country is unable to replace the skills that are continually being lost through emigration. The section below analyses some of the reasons for the emigration of professionals from the country.

2.3.1 Different schools of thought to the emigration of professionals

Upon the dispensation of democracy in 1994 and even before then, many white people left South Africa. These people did not have confidence in the ability of a black government to succeed in ruling the country. Other people feared the affirmative action policies that were implemented by the new government. Some of the (white) people were retrenched from their jobs (Innoncenti 2004: 5) and due to forced retrenchments these people could no longer be employed. It is only fair that in such situations people will look for work opportunities elsewhere, even beyond the borders of South Africa. The developed countries are also poaching professionals from countries like South Africa. As a result foreign countries are very glad to receive immigrants from this country (Crush 2002: 148).

Crime also played a part and still continues to, regarding the emigration of skills from South Africa. Lamont (2001: 11) argues that a survey that was done by one South African company showed that brain drain was also a response to crime. The issue of crime is a controversial one and will not be discussed for the purposes of this research. Globalisation has also made the immigration of skills rife as indicated before. Skills have been made to be more interchangeable because of the movements of people across countries and nations (Stern & Szalontai 2006: 131).

These factors, along with many others, resulted in people emigrating from the country in search for better opportunities and lifestyles elsewhere (Innoncenti 2004: 5). When emigration takes place, skills are lost through the human capital drain and this phenomenon persists to this day.

According to the Human Sciences Research Council, hereafter referred to as the HSRC, report on skills migration, the flow of professionals from this country is increasing (HSRC 2004: 1). The same report, however, highlights the fact that the number of immigrants coming into the country is on the decrease. The decrease of immigrants into the country may be as a result of the government being tough on issuing work permits. In total the country is experiencing a net outflow of skills. The report by Simelane (1999: 15) also indicates that, in total, South Africa has lost skills through emigration more than it has gained since 1994. As indicated earlier on, the full return on investment is not being realised as the skills are lost because the professionals cease to contribute to the production process of the country.

In this way South Africa is losing a lot of money from training people only to lose them later on. In their report on emigration in South Africa, Stern & Szalontai (2006: 126) argue that skilled workers are the most in demand in the South African economy. It is argued that the capital-labour ratio is higher and as a result benefiting the highly skilled. This, coupled with emigration is creating a shortage of skilled labour in the economy. The country does not only lose out on its investment with regard to emigrating

professionals, the loss is also experienced with the much needed economic growth. Skills are needed to drive the infrastructural projects that are happening currently.

The skills shortages are putting the achievement of the AsgiSA initiative objectives at risk (EIU 2006: 2 and Lamont 2001: 1). The right macro-economic fundamentals have been set, but to achieve the 6% economic growth rate the country needs to have the right skills in order to drive the productive process. The country is also compromised to competitively play its role in the global markets (Bailey 2003: 248). The social and economic development would also not be able to happen at the maximum level.

Besides the loss, both in economic production and investment suffered due to the skills emigration, the nation's ability for development is reduced (Bailey 2003: 248). The emigrating professionals are unable to pass on knowledge to incoming professionals and as a result the home country cannot reach the maximum technical progress. This further makes it difficult for a country (losing skilled professionals) to take its rightful place in the global economy.

What kind of policies would the government have to employ to ensure skilled professionals do not emigrate? The government can only encourage people to contribute towards the upliftment of the economy of the country. Are the government's strategies of AsgiSA and Jipsa the way to go? Will South Africa be able to achieve the target 6% economic growth it set itself for the year 2014 (EIU 2006: 2)? To answer these and many other questions we would have to look at the labour market. To find out whether the South African labour market is friendly towards these objectives of government can be discovered through further research. It is a good thing to come up with strategies that are creative but in the same breath the strategies can only work if the playing fields have been levelled. An analysis of the conditions that exist in the South African labour market follows in the next paragraphs.

2.4 Creating a climate conducive for investment

2.4.1 The South African investor climate

In order for the country's economy to grow at the levels envisaged, foreign investment is needed. The classic definition of FDI is the management control of a local company by an off-shore company (Baur 2006: 3). In most cases the FDI ventures require a long-term commitment by the multinational company involving deployment of resources. The deployment of resources could be in the form of human resources or finance. To obtain the FDI needed to grow our economy, we have to set out economic fundamentals that are investor friendly.

South Africa has initiated proactive measures to attract foreign investment. Foreign investors look at certain fundamentals before investing in an emerging market environment. Baur (2005: 18-20) lists some of the positive steps South Africa has undergone to attract FDI. South Africa has liberalised its economy to some extent. The exchange controls have been partly removed though not at all for example, the exchange rate was liberalised in 1996 (Carmody 2002: 258). Also, most of the parastatals have been deregulated and privatised. The macro-economic fundamentals that the South African government has put forward are solid and have allayed the fears of investors. Having read the upbeat report of the IMF on the economy of South Africa in 2006, any investor would be confident about the economic prospects of this country (Boyle 2006: 19).

South Africa had introduced exchange controls as far back as the 1960s with the aim of controlling the movement of capital in and out of the country (South African Consulate General 2007: 1). These measures were relaxed in recent years and by 1999 a lot of progress was made to lift most of these controls as indicated by Baur (2005: 18-20). We cannot say that all the exchange controls have been abolished but most of these controls no longer exist. Government has also shown its commitment towards a free market system economy by privatising most of the parastatals. This measure reduces the state's

control over the economy and proves to investors that there is less interference of government in the running of the economy.

Having highlighted the success of the macro-economic fundamentals achieved by the African National Congress, hereafter referred to as ANC government, these are not without critique. Bond (2005: 255) argues that post-apartheid South Africa has declined. Bond argues that the macro-economic stability is overemphasised and that this has cost the economy three currency crashes, leading to high interest rate increases. These developments led to the real prime rate increasing to the high levels of 15% in 1998. The author continues by indicating that by 2004, the real interest rates in South Africa were the highest, followed by the lowest levels of FDI. South Africa The Good News (2005: 1) reports that the FDI inflows in the same year were below the levels achieved by China, India, Mexico and Brazil.

However, the latest measures embarked on show the country's commitment towards reform and its preparedness to be a market player in the global economy. International investors welcome such commitments by governments and are open to trading in such markets. However, the shortages of skilled workers and rigid labour laws have been identified as obstacles to attracting the required FDI (Sowinski 2006: 75).

2.4.2 The labour market laws

The labour market is an important instrument that can ensure the achievement of the flow of more FDI to the country. Regulations of the labour market will determine the preparedness of the economy for FDI. The functions of labour markets are laid out in Barker (2003: 13). The author summarises the functions as “the allocation of human resources among alternative users and the distribution of income”. Ehrenberg and Smith (2006: 3) define labour economics as the study of employers and workers regarding their behaviour with wages and prices and working conditions. According to positive economics, people are rational in their decisions. The theory of positive economics states

that people will respond positively to rewards and negatively to costs (Ehrenberg & Smith 2006: 3).

Employers will always seek higher profits because the profit motive is what motivates the entrepreneur to go into business. Workers look for higher wages when they sell their labour. The two objectives of maximising profits by the entrepreneur and higher wages to labour cannot always happen at the same time. Employers will always employ at relatively lower wages in order to control their costs so they can maximise their profits. What is important is the fact that the labour markets strive to realise efficiency and equity which is equilibrium. This means that the labour markets will always settle at the point of equilibrium where demand for labour equals supply of labour.

Barker (2003: 1) includes the principles of fairness and humanity to the elements of the labour market. In negotiating a job contract, the employer has more bargaining power and this may lead to the exploitation of the employee. In order to protect employees and help them negotiate from a position of strength, legislation provides for the formation of unions. In this way unions help workers negotiate more on an equal basis with employers. However trade unions can have more than enough power in the workplace and influence the labour markets to be inflexible. Labour market flexibility refers to the situation where employers are able to easily enforce more regulations in the workplace at ease. Pillay (1999: 1) lists these regulations to include amongst others, the ability of the employers to hire and fire as they wish; employers may also place downward pressure on wages and even alter work times.

In a perfectly competitive market, labour is not unionised and makes its own decisions (Barker 2003: 14). With the problems South Africa is experiencing (the skills shortage) it would be better to have competitive labour markets so that labour can be exchanged freely. The free movement of labour would also help to fill the gaps that resulting from the emigration of professionals.

By having a non-unionised labour market, workers have freedom of choice. Salaries can be negotiated by the employers and workers. Investors coming into the country would also find a friendly environment and not be coerced into inconsiderate union demands. The South African labour market has been accused on many fronts for having rigid laws (Barker 2003: 318). The World Bank was quoted as saying that South Africa has some of the most rigid labour laws (Naidoo 2006: 9). These rigid labour laws were identified as stumbling blocks to doing business in the country. The hours of work are said to be highly regulated in South Africa, with high costly procedures of hiring. A report by The Economist (2006: 69) also argues that South Africa's unemployment could be reduced by making the labour market more flexible. Rigid labour laws are laws that are not friendly to investors and cannot be changed easily. International investors prefer flexible labour markets as opposed to rigid ones.

Government is concerned about the situation and has promised to make reforms and create more flexibility in the labour market (Nevin 2006: 45). The negative labour market conditions only serve to deter foreign investment. Lamont (2001: 2) argues that the rigid labour regulations of the country are creating constraints to economic growth. South Africa has been advised to work on the labour laws and relax such laws so that this country can be able to create the much needed jobs. These rigid labour laws restrict business and are hindering the country from reaching its potential economic production and growth (Naidoo 2006: 9).

During the time the World Bank report was released, the South African minister of labour was engaging in talks with organised labour about the reforms of the labour market laws (Naidoo 2006: 9). Labour market flexibility enables the employer to change certain aspects of the work and workforce to meet the changing demands of business (Barker, 2003: 30). When the labour laws are rigid, employers cannot change certain aspects of the work and workforce without the approval of labour unions. The South African labour unions feel that labour laws are too flexible, whereas the employers feel that some of the labour market regulations need to be changed (Naidoo 2006: 9). The situation is not surprising as unions will always favour rigid labour regulations. The unions in South

Africa may feel that labour laws are too flexible but from an economic point of view South Africa's labour laws are regarded as rigid and not investor friendly (Naidoo 2006: 9). In this way it will be relatively difficult to attract FDI to our shores unless the situation changes.

By not attracting enough FDI this country cannot grow at its potential rate. When the country is growing below its potential rate less employment will be created. This situation will result in skills not being transferred as the platform for transference would not exist.

2.5 Conclusion

In this chapter we began with a discussion on human capital development, showing the importance of skills acquisition. A positive relationship exists between education and the productivity of the labour force. Education enhances the productivity of the labour force. It was argued that investment in the labour force will bring about positive returns in the form of a more productive labour force.

An analysis of the skills present in the economy has revealed the country to have a shortage of critical skills of engineering and artisans, as well as those related to commerce. The institutions of higher learning are blamed for producing fewer graduates in the abovementioned fields. The education system needs to be overhauled or processes sped up in order to produce the kinds of skills needed by the economy. The country is still producing too small throughput of matriculants with mathematics and science qualifications. The reasons are because of the shortage of educators who are proficient in mathematics and science. This shortage of critical skills has been blamed for the inability of the economy to realise its maximum productive capacity.

The government is also playing its part in the development of critical skills in the economy. The latest of the intervention initiatives that the government has introduced are AsgiSA and Jipsa. AsgiSA is looking into growing the economy so that unemployment

and poverty can be eliminated but due to the skills shortage this initiative will not succeed. Thus Jipsa has also been created so that the development of critical skills can be developed.

The emigration of professionals has also caused gaps in the availability of skilled personnel. The emigration happened because of many reasons and is still continuing to take place. The country has lost over 118 000 professionals since the 90s, some of which include medical professionals, engineers, artisans and teachers. In this way the country is not realising the full returns on its investment in human capital. The continuing loss of skilled professionals is posing a threat to the growth of the economy. Intervention mechanisms are required for the emigration of professionals to be discouraged and the crucial skills to be retained.

On the discussion of the reasons leading to the emigration of professionals we found out a few like affirmative action, retrenchments, crime and globalisation. After the new political dispensation, affirmative action policies, coupled with retrenchments, favoured blacks in senior employment positions to the detriment of whites. As a result many Whites left the country to start new careers elsewhere. Crime is another factor that is continuing to drive skilled professionals from the country. Globalisation has also made skills to be interchangeable and as a result, people can move to other countries in search of better paying positions.

The World Bank's report of doing business has shown South Africa as having very rigid labour laws. This is in contrast to labour unions that feel the labour market is too flexible. By having inflexible labour laws, FDI cannot easily be attracted to the country. This further complicates the country's ability to achieve the envisaged economic growth rate. The country has relaxed most of the controls it previously had in the economy but more can still be done. The relaxation of the labour market laws need to be applied so that businesses (FDI) can regard the government as investor friendly. By attracting more investment the country will be able to grow its economy on a larger scale and create a bigger platform for skills transfer.

Chapter 3: Employment and unemployment profile of South Africa

3.1 Introduction

In this chapter we will discuss employment and unemployment of labour in the country. We will look at the employment levels in the different economic sectors- the primary, secondary and tertiary sectors- and analyse growth in employment in those sectors. The objective of analysing employment growths is to identify the sectors that are employing more labour. In this way, we will be able to establish the extent of unemployment in the country and come up with suggestions on how to overcome the problem.

Employment will also be analysed by the education levels of the different racial groups. This will be done to establish whether the labour force possesses adequate education levels. Furthermore, we need to establish whether the country is investing enough in human capital development as discussed earlier. Education is one of the major elements of human capital and enhances the productivity of labour (Lipsey, Steiner, Purvis & Courant 1990: 379).

Unemployment theories will be discussed to lay the foundation of the different types of unemployment. Unemployment will firstly be analysed according to the education levels of the different racial groups and then according to the different population groups in the country. This will be done in order to determine the racial groups that are most affected by unemployment. The objective is to establish a correlation between any unemployment within the population groups and population groups that were indeed disadvantaged in education by the former political dispensation.

Most economists agree that education has the potential to reduce labour market discrimination (Lipsey et al 1990: 394). By acquiring the same levels of education, people will be able to compete equally for the same jobs, as the barriers are eliminated. Equal education gives people equal potential for training although their learning tempos on the job may differ. The main source of data to be used for employment and

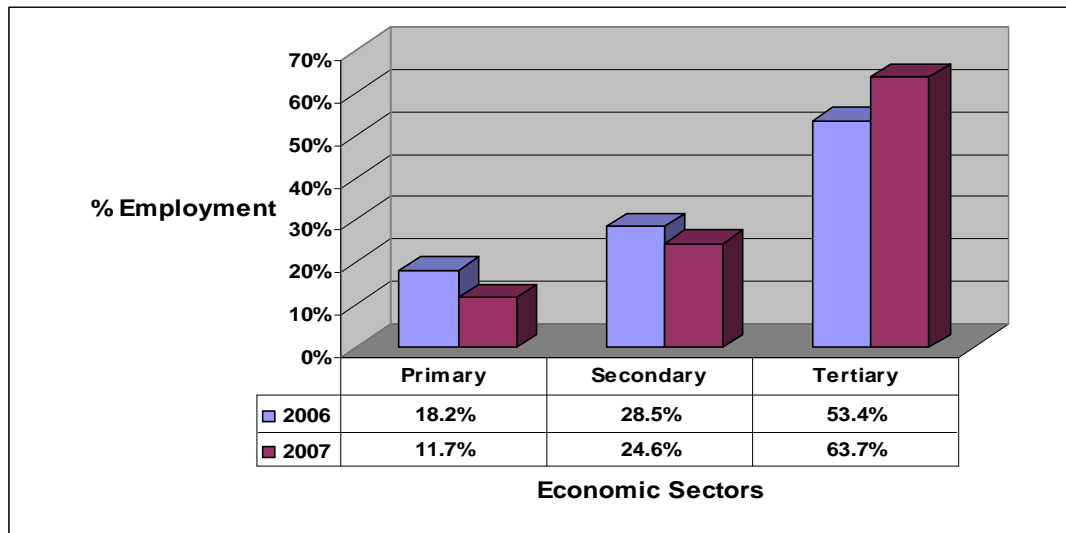
unemployment in the country is the 2006 and 2007 March Labour Force Survey, hereafter referred to as LFS, produced by StatsSA. The LFS is an instrument used in the labour market to calculate the level of employment and unemployment in the economy. The data used for the calculations on employment and unemployment is provided in the appendix section of this research.

3.2 Employment by sector

The employed labour force consists of workers (between the ages of 15 and 65) who hold full-time jobs. Figure 3.1 shows employment by sector in March 2006 and 2007. Both the primary sector and the secondary sector have shown a decline in employment for 2007. There was a decline of 6.5% and 3.9% respectively for both the sectors between March 2006 and March 2007. There was an increase in employment by the tertiary sector of about 10.3%. The statistics are showing a shift of the economy towards the tertiary sector. The tertiary sector is therefore gaining importance in terms of employment of the labour force.

The growth that the tertiary sector is experiencing is driven mainly by the wholesale & retail trade. The trade sector has in the recent past shown growth which was induced by high consumer demand.

Figure 3.1 Employment by sector (2006 & 2007)



Source: StatsSA, LFS, 2006 & 2007

In 2006 consumer spending increased significantly because of relatively cheaper credit as interest rates were left relatively low. The lower interest rate environment led to private sector credit extension being higher and household consumption expenditure increasing. In the second half of 2006, the repurchase, hereafter referred to as Repo, rate was increased by 200 basis points by the Monetary Policy Committee, hereafter referred to as MPC to increase the level of interest rates (SARB 2007: 31). This was done in order to curb the credit-induced growth of spending.

Domestic expenditure continued to increase in the beginning of 2007; however price pressure had started to build. Food and energy prices were accelerating and led to the CPIX inflation measure exceeding the target range by 0.3% in April 2007 (South African Reserve Bank (2) 2007: 3). The CPIX inflation measure reached 6.3%, falling outside of the target range of 3 to 6%, for the first time since 2003. A further total of 150 basis points increase in the Repo rate was effected in the second half of 2007 to further discourage credit spending and contain inflation.

Though the secondary sector experienced a decrease in employment in 2006, this sector is the second highest employer in the economy because of manufacturing and

construction. There is currently a boom in the construction industry; this is evident from the increasing employment in that sector (StatsSA 2006: 12 and StatsSA 2007: 16). The primary sector is providing the least number of jobs in the economy. This sector has lost its importance in the economy, shown by its relatively lower employment potential. The statistics also show that the primary sector's contributions to GDP have been decreasing over the years (StatsSA 2007: 12).

3.3 Employment by level of education within the different population groups

In showing employment in relation to the different educational qualifications, the objective is to highlight the fact that different population groups have unlike educational levels in South Africa. As a result of this, the population groups will have different skills and employment ability. It was argued earlier that education increases the chances of employment and makes workers more productive.

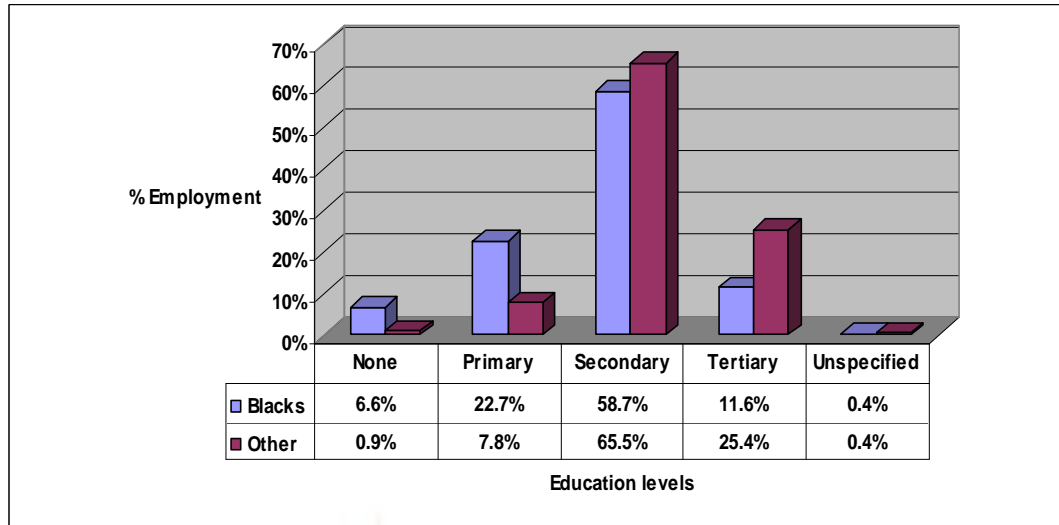
Dias and Posel (2007: 3) agree that education may lead to the increase in productivity and may also make the potential employee more valuable in the workplace. Furthermore education is regarded as an investment because there is value embodied in that investment (Lipsey et al 1990: 379). The value of this investment is described as better skills, more knowledge and perhaps better health.

Figure 3.2 shows employment of the different population groups in South Africa in March 2007. The black population is accounted for separately and the statistics for white, indian and coloured populations are aggregated because of the small sample size (StatsSA 2007: 9).

The black population has more uneducated (6.6%) compared to the other population groups (0.9%). Even more black workers (22.7%) have only primary and secondary (58.7%) education qualifications. The lower education levels of workers make these workers' chances of employment slim (McCord and Borat 2003: 115). Fewer workers in

the other population groups have only a primary level education but relatively more workers possess higher education qualifications.

Figure 3.2 Employment by education levels (2007)



Source: StatsSA, LFS, 2007 (Own calculations)

The higher education qualifications are shown by more workers who have secondary (65.5%) education qualifications. The education level of the black population is much lower for the tertiary level. Only 11.6% of black workers possess tertiary education qualifications, compared to 25.4% of the other population groups (StatsSA 2007: 9-10). The tertiary education level results show that South Africa is not investing enough towards its human capital as argued earlier. The concentration of education qualifications is still in the lower levels. Skills investment is not given the priority it should. If high priority was allocated to the skills acquisition, the job market would be showing more employment at the tertiary sector level (figure 3.2).

The government initiated policies of affirmative action to help the previously disadvantaged groups (Mallet 2000: 16). These policies may have been controversial but were introduced to correct the imbalances of the past and empower the groups that were previously disadvantaged. The educational differentials that currently exist, will take time

to be broken and the playing fields levelled for all the citizens of the country to contribute positively to the build up of the economy.

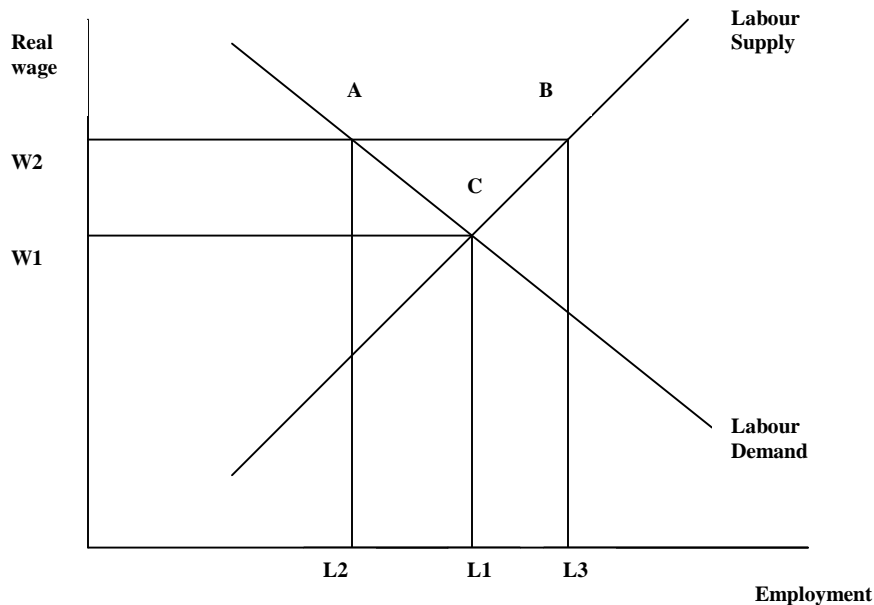
We can make the assumption that more people in the other population group have the potential to be trained into critical skills. Lipsey et al (1990: 379) have argued that education provides people with more skills. Such skills would make this group more employable than the black population group. Therefore the other population group is advantaged over the black population in terms of education. Their higher education levels present a favourable advantage for the other population grouping to be employed. Therefore we can make an assumption that the other population grouping has higher skills levels and as a result, is more employable than the black population. In this regard it is argued that the black population will experience lower levels of employment in relation to the other population groups.

3.4 Unemployment theory and the different types of unemployment

A market is any place where goods and services are traded. There are thus buyers and sellers in every market. However, in the labour market we cannot talk of goods and services but of human beings. The labour force consists of people of working age, who are working or actively seeking employment and are able to work. The part of the labour force that is not employed is classified as the unemployed (Ehrenberg & Smith 2006: 27). Unemployment is a state of disequilibrium in the labour market, where people who are looking for work cannot find employment. A simple form of equilibrium in the market would be a situation where the economically active population force is working. In such a state the demand for labour is equal to the supply of labour.

The decisions of workers and employers are based on theories of rational behaviours of economic entities. Each economic entity is looking at maximising their happiness. Figure 3.3 is a representation of the equilibrium level in the labour market, where, at point C, the demand for labour is equal to the supply of labour and the going wage rate is W_1 (Barker 2003: 18).

Figure 3.3 Interaction of demand and supply of labour



Source: Barker, 2003

At the higher wage rate (W_2), the supply of labour (L_3) will be higher than the demand for labour (L_2). Many workers will therefore be prepared to take a lower wage (W_1) than be unemployed as employers can only absorb L_2 job seekers at this higher wage rate. Thus at wage rate W_1 employers are able to employ relatively more workers (L_1) and the supply and demand of labour are equal at this point (Barker 2003: 18).

3.4.1 Types of unemployment

Economists define four main types of unemployment: frictional unemployment, structural unemployment, cyclical unemployment and seasonal unemployment (Barker 2003: 20 and Ehrenberg & Smith 2006: 519).

Frictional unemployment

Truu and Contogiannis (1987: 148) define frictional unemployment as unemployment caused by imperfect information regarding positions that exist in the market and people looking for jobs. Some firms are laying off workers because of downsizing whereas other firms are expanding and looking for more labour. However, people looking for jobs are unaware of the vacancies that exist and the business owners do not know about people looking for jobs. In today's times the situation will be solved by personnel agencies. Employers are able to advertise vacant positions through recruitment companies and information is therefore made readily available.

Cyclical unemployment

Cyclical unemployment is related to the business cycle of the economy where employment profile changes as a result of economic performance (Ehrenberg & Smith 2006: 536). During periods of boom in the economy, more people are employed and in times of economic recession labour is laid off leading to unemployment.

Seasonal unemployment

Seasonal unemployment could be described as being similar to cyclical unemployment as it is driven by demand-deficient unemployment (Ehrenberg & Smith 2006: 543). In this kind of unemployment there are seasons of peak employment and off-peak periods (Barker 2003: 203). Agriculture serves as the best example to explain seasonal unemployment. There are seasons when there is high productivity in the agricultural sector and some periods are dormant. Unemployment will decrease in peak seasons in this sector and increase during off-peak seasons.

Structural unemployment

Structural unemployment explains the situation where, although the economy is growing, not enough employment is provided (Barker 2003: 202). In periods of peak economic growth, job opportunities do not increase fast enough to absorb people who are unemployed. Some of the many reasons given for structural unemployment is related to skills issues. It may be that the economy is not absorbing the job seekers because they do not possess the right skills needed in the particular instances. It still needs to be proven later on whether this is the situation the South Africa is facing.

The broad definition of unemployment includes, in the calculation of the total unemployed people who are discouraged to look for work. Even though such people may not be physically looking for work because of discouragement, the broad definition of unemployment regards them as unemployed (Barker 2003: 3). However, the statistics used in this research uses the narrow definition of unemployment, which only includes people who are actively seeking employment. This is the official definition of unemployment used by the International Labour Organisation, hereafter referred to as ILO (1997: 1).

3.5 Unemployment in South Africa

In the following paragraphs we look at the unemployment situation in the country from different perspectives. StatsSA (2007: II) reports that the unemployment level was at 25.5% in March 2007. This unemployment level has come down from the levels of 30% in 2002 (StatsSA 2006: IV). However this level of 25.5% is still high by international standards.

Looking at the unemployment levels according to the different racial groupings, table 3.1 shows that blacks experienced the highest unemployment levels in 2006 (StatsSA 2006:7). Blacks comprise the highest number of economically active population.

Table 3.1. Unemployment by South Africa's population groups in '000 (2007)

Population groups	Economically active	Unemployed	Unemployment rate
Blacks	12 684	3 834	30.2
Coloured	2 737	346	19.8
Indian	849	65	13.8
White	3 027	88	4.3

Source: StatsSA, LFS, March 2007

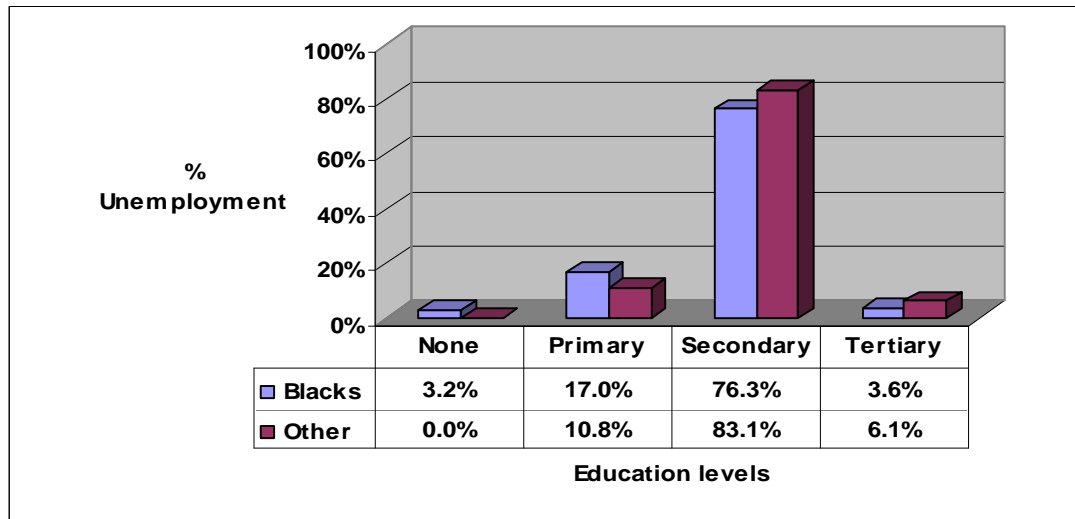
About 30% of the economically active people in the black population group were unemployed in March 2007. Only 19.8% of the coloured population were unemployed. Even lesser percentages of white and indian populations were unemployed at 4.3% and 13.8% respectively. Because other population groups were not afforded the same opportunities to better education, not all the people of this country can contribute equally to the productive processes of the economy. These are some of the reasons why we have high unemployment levels (StatsSA 2006: 7).

3.6 Unemployment by level of education

Figure 3.4 shows the unemployment levels in the country according to the different educational qualifications. Unemployment is further compared between blacks and the other population groupings. The unemployment for the population groupings has not been calculated across all the population groups but as unemployment within the particular population grouping.

The figure shows that, of the total unemployed in South Africa in 2007, the other population group had a higher standard of education as can be seen by an insignificant number of people with no education. More of the black unemployed had primary (17%) and secondary (76%) education qualifications. There are fewer blacks (3.6%) with tertiary education qualifications (StatsSA 2007: 10-11). The other population group had relatively more people with both secondary (83%) and tertiary (6%) education qualifications.

Figure 3.4 Unemployment by level of education (2007)



Source: StatsSA, LFS, 2007 (Own calculations)

The data shown in figure 3.4 indicates that the level of education in the black population group is far lower than the education levels of the other groupings. The variance in the percentages may seem small but if we consider the large numbers of the black population group in comparison to the other population groups, it makes a big difference. This research interprets the results to be that only a few blacks achieve the tertiary level of education qualifications and so this is causing a barrier in the absorption of blacks into the labour market. The black population is currently not standing the same chance employment if we consider the education levels and the level of skills possessed by people looking for employment.

3.7 Analysis of the employment and unemployment situation

The challenge that faces authorities is to identify the sectors of the economy that are showing more growth and to direct the acquisition of skills into those high-growth sectors. By promoting the skills needed in the high-growth sectors, the country could be able to optimise its economic growth potential.

In building up the critical skills in the economy we have to start with these sectors that show more employment potential. More investment has to be channelled into these

sectors so that more employment can be achieved and economic growth, consequently increased. We also have to emphasise the fact that, without the necessary skills, economic growth will not be enhanced. Furthermore the skills will be acquired only with the right education qualifications (Van der Colf 2004: 7).

Figure 3.4 has shown that the concentration of the workforce is on the secondary education qualifications (StatsSA 2007: 9-11). Most of the people employed in the economy have secondary education qualifications. There is only a small percentage of the workforce that has tertiary education qualifications. In order for South Africa to seize opportunities of growth that are available, the education of the labour force has to take priority and the skills of the workforce have to be enhanced.

We have argued that human capital is important for the increase in productivity. The statistics from LFS show that the country is not investing that much in tertiary education (StatsSA 2007: 9-11). At the current levels of education qualifications, the labour force is lagging behind. Education is important in terms of building skills capacity. It was argued that education would enable the workforce to be more trainable.

Another argument could be that tertiary institutions are not producing the kinds of graduates needed in the economy (Barker 2003: 256). In order for South Africa to improve on skills acquisition, bigger investment has to be made into the education of the work force and in the right kinds of qualifications. Authorities must place more emphasis on institutions of higher learning. These institutions have to produce more graduates in the fields of science, maths and commerce so that we can have more engineers, artisans and commercial graduates.

By diverting attention away from the social sciences qualifications this country will be able to promote workers with skills required in the economy. It was mentioned earlier that institutions of higher learning are producing more graduates with social sciences degrees (Barker 2003: 256). Although social sciences degrees lead to important careers

that can be followed, a shift is needed towards the attainment of more science, engineering and commerce degrees and diplomas.

When looking at the education of the labour force, it is clear that blacks are far behind the other population groups in qualifications. There is a higher level of secondary education in that population group (about 76%) whereas the level of tertiary education is unacceptably low. Of all Blacks employed only 3.6% have tertiary education qualification compared to 6% of the other racial groups (StatsSA 2007: 9-11).

The education system in South Africa recently changed and is now accommodative and equal for all. However, it will still take some time before the playing fields can be levelled. Although policies of affirmative action may be controversial, unpopular and sometimes not applied correctly, this kind of intervention is needed in the economy to correct the imbalances that were created. The policy of affirmative action was introduced in the late 90s and was aimed at the equitable representation of the previously marginalised population groups (Mallet 2000: 16).

Looking at unemployment by population groups we again see that blacks experience the highest unemployment. Unemployment may be decreasing but it is still high. At the level of 30% this is higher than those of other population groups and it is the only one nearer to the average unemployment in the country at 25.5% (StatsSA 2007: XV).

The first step of promoting mathematics and science in schools has been taken as argued in the South African Government Information (2006: 7) but more still needs to be done. The institutions of higher learning should also do their part to produce more graduates in the disciplines of maths and science. Human resource development cannot be limited to classroom education. As indicated earlier on, vocational training is also part of human resource development. South Africa is not doing well in this regard either.

In order to ensure that the education system is in line with the promotion of critical skills in the economy, monitoring systems have to be put in place, not only for schools but for

tertiary institutions as well. By involving the tertiary institutions the country would ensure that the right graduates are produced and the right kinds of skills are developed. Companies would be able to draw different candidates who can be trained for critical skills.

The other aspect of this unemployment is the crime level that it has helped to create in the country. It was indicated earlier that South Africa has a crime problem (Lamont 2001: 11). Therefore it can be argued that most of the people committing crime are the unemployed. Most of the people involved in criminal activity are justifying their actions as survival. This country cannot afford to be terrorised by criminals and the social-grants measures of government is not a sustainable solution for poverty alleviation. The crime situation is robbing lives hardworking South Africans of their income, peace of mind and lives.

3.8 Conclusion

In this chapter the foundation for employment and unemployment were laid, with a discussion of theories related to the topic of unemployment. The different types of unemployment were discussed. We used statistics from the LFS to determine the employment and unemployment rates of labour in the economy. The results for employment have shown South Africa not to be investing adequately in its human resources development. In analysing employment by education qualifications, we find the concentration of education qualifications in the secondary level. The tertiary level of education only constitutes the smallest percentage.

To be serious about skills development the country needs to produce more workers at tertiary level. Those are the kinds of workers that would be able to acquire the intensive skills that are needed in the economy. Workers who have attained tertiary education qualifications are more trainable. Such workers can be trained into the much-needed critical skills.

Analysing employment by economic sectors, the tertiary sector and the secondary sector displayed increasing trends in their employment of labour. The primary sector was found to be dwindling and experiencing a decrease in its employment capacity.

Regarding unemployment, most people who are unemployed possess a secondary education qualification. This is further proof that the education levels in the country are mainly concentrated in the secondary education qualifications. This is not the ideal situation as to be trainable for critical skills the labour force needs tertiary education qualifications. Should the country have more people with tertiary education qualifications, more people can be trained in critical skills and unemployment would be reduced. However, such a situation would only be realised if the qualifications are in the disciplines of science and maths, which were identified as critical.

Unemployment, though showing a decrease, was found to be high by international standards. Further analysis found unemployment by population groups concentrated in the black population. The poor level of education in this population group does not come as a surprise. Unemployment by education levels has shown the country's failure to invest in its human capital development.

South Africa is currently experiencing high crime levels. The high unemployment in the country could be a breeding environment for criminal activity. Most of the criminal activity taking place is orchestrated by unemployed people. The government's social grants measure is not a sustainable solution for poverty alleviation.

Bigger investment should be channelled into high-growth industries so that even more economic growth can be realised. Jipsa has also identified the skills that are critical to achieve such growth and hopefully these include the skills in the wholesale & retail trade, business services, manufacturing and construction sectors. By taking proactive steps now, policy makers would simplify the objective of 2014. Otherwise we might reach 2014 and only realise then that a particular approach should have been taken.

Chapter 4: Government's growth initiatives and analysis of the sectoral contributions to GDP

4.1. Introduction

In this chapter the performance of the different sectors in the South African economy- primary, secondary and tertiary sectors- will be discussed. These sectors will be analysed from the point of view of their contributions to the economic growth, the GDP. The performance of each sector will be analysed to determine their contribution to the GDP. A comparison of the contributions to GDP by the sectors is essential in order to establish the importance of each sector to the economic growth of the country

Furthermore it would be important to see whether the sectors that are employing more people are indeed the ones that are showing more growth. We have identified the sectors that are showing more employment: the tertiary sector and the secondary sector. Identifying the link between these high-employing sectors and the high GDP growth sectors is important. If the high employment sectors are also the sectors contributing more to the GDP growth, this will show that those are the sectors to be promoted. Therefore the special skills needed in those sectors would be the ones to be promoted.

South Africa has one of the best financial market infrastructures worldwide. The country has seen a relatively higher investment by multinational companies in the local banks. The first such investment by a foreign bank was the acquisition of Absa bank by the Barclays of United Kingdom in 2005. Barclays has acquired a 56% stake in Absa (Mail & Guardian online 2005: 1). This move has been followed by a Chinese bank investing in the Standard Bank of South Africa a few months ago (allAfrica.com 2007: 1). Having identified the business and financial services as a high-growth sector, these kinds of FDI moves will help our economy grow and reduce unemployment.

South Africa has a current account deficit because it is importing more than it exports. As a developing economy, our demands for capital equipment are mostly met from foreign countries and also the importing of oil puts pressure on the current account. As a result of all these factors, the current account deficit for 2006 calculated to 6.4% of the GDP

(South African Reserve Bank (1) 2007: 20). Growing the manufacturing sector and exporting manufactured goods will help bring down the current account deficit. The mineral resources that the country is producing are manufactured elsewhere in the world and sold to us at a higher value added. It would be in the best interest of the country to exploit avenues of manufacturing these minerals into finished products and export the final products. FDI would be useful in this regard if we could have multinational companies investing in our manufacturing sector for such reasons. These kinds of investment measures are welcome as they will help with the promotion of the local economy and employment. The country needs FDI to stimulate and promote export-led growth from a developed manufacturing sector. This is also crucial in diversifying our export base from raw commodities to manufactured goods.

The government has also taken initiatives to ensure that the South African environment is conducive for investment and increased economic growth. The initiatives of AsgiSA and Jipsa have been identified to speed up these objectives.

4.2. Objectives of AsgiSA and the Jipsa government initiatives

The objective of AsgiSA is to create an environment conducive to growing the economy by 6% in the year 2014. Coupled with growing the economy is the objective of halving unemployment and poverty in the same year. South Africa's unemployment rate is relatively high (25.5%) by international standards and government has realised that in order to bring it down and halve poverty, relationships with organised labour and business must be fostered. As a result the partnership on AsgiSA draws from many stakeholders and is a very inclusive process where even experts were consulted in initiating the concept (South African Government Information 2006: 7).

The objectives set out in AsgiSA are moderate. The target of growth has been divided into two phases, with a growth of 4.5% or higher in the first phase, 2005-2009 (South African Government Information 2006: 1). The second phase, which will start in 2010, seeks to achieve an average economic growth rate of 6%. The objectives that are set for

the moment are achievable as the growth of the economy in the recent past has been around 5%. In 2006, the GDP growth was calculated at 5% (South African Reserve Bank (1) 2007: 1). In this way the government has set moderate and achievable targets but these targets are not without constraints.

Jipsa is an institution comprising of key ministers, business people, trade unionists and education providers as well as leaders in the field (South African Government Information 2006: 7). The objective of Jipsa is to identify the skills that are in urgent need and to give quick solutions to skills problems. Solutions range from giving special training programmes, bringing back retirees and drawing in new immigrants in other instances. The government faces a major challenge in trying to keep skilled South Africans at home (HSRC 2004: 2).

Referring to Jipsa as the quick-fixer is over simplifying the skills problem. There can never be a quick-fix solution for the skills problems. Except in situations where retirees will be brought back to transfer skills whilst helping with the production process or service delivery, the process of skills development is not an easy one.

AsgiSA identifies a few constraints to the achievement of the objectives of increased economic growth and halving unemployment and poverty by 2014. For the purposes of this research the only constraints to be discussed will be “the shortage of suitably skilled labour”. The argument highlighted in the AsgiSA discussion document is that the legacy of apartheid education has created a lack of skills in the economy. The AsgiSA report regards the lack of skills as the responsibility of the apartheid system (South African Government Information 2006: 4). This is a biased view which does not take into consideration other factors that may have contributed to the lack of skills. Such a narrow view of the real causes of the skills shortage could lead to the intended interventions being flawed.

The policy makers should have taken a much broader approach to the problem of the skills shortage. The conclusion of AsgiSA and Jipsa was that the shortage of skills exists

in the fields of managers and artisans. Furthermore, the unequal quality of education within the different racial groupings was found to be the culprit for the skills shortage (South African Government Information 2006: 3). This unequal quality and level of education in the different racial groups of South Africa was also identified earlier on in this research.

In order to counteract some of these constraints, government introduced a series of interventions. Education and skills development were given priority. One of the measures identified to address the skills challenge is to double the throughput of maths and science in high schools education to 50 000 by 2008 (South African Government Information 2006: 7). This is, however, not without challenges as the number of teachers qualified in maths and science is also inadequate for the needs of the country.

4.3. Historical background of the South African economy

In the past, at around the 1910s, the South African economy was sustained by the mining and farming sectors (Abedian & Standish 1992: 2). Diamonds and gold were discovered in South Africa during the 1910s. The discovery of these minerals led to the establishment of the rail system, generation of electricity from coal and establishment of the urban concentration (Abedian & Standish 1992: 1). Furthermore, these discoveries helped to develop the South African economy and became its major driving force. Barker (2003: 80) shows the high contributions to employment by the primary sectors of agriculture and mining in the 1950s. The contribution of mining to the employment of labour stood at 13% in 1950 and had fallen by 6.8% in 1998 (Barker 2003: 80). Bond (2005: 261) also argues that employment decreased largely in the 1990s.

The assumption in this research is that high growth in employment is a function of high economic activity and production within a particular sector. Therefore the larger share of employment by the mining sector shows the higher contribution of that sector to the GDP during that time. By contributing 13% to total employment, which decreased by about 7% in 1998, the statistics show that mining played an important role in the economy

earlier on (Barker 2003: 80). According to a report by the South African Department of Minerals and Energy (2005: 22), the value of gold sales has been declining since the late 1980s. South Africa relied mainly on the production of gold in its mining industries. This decline in the sales of gold has therefore caused a decrease in the production output of mining. With the advent of globalisation the economy has diversified and is interacting with the global economy in many different sectors of production. The tertiary sector is now the largest contributor to the economy as opposed to mining (Ndaba 2007: 1).

Identifying the high-growth economic sectors should help promote bigger investment in those sectors so that the country could be able to drive the much-needed economic growth. The growth should be enhanced in order to advance employment. However employment will only be enhanced by the availability of skills, which Ndaba (2007: 1) warns that the country is running short of. Employment, in return, will help alleviate the unemployment and poverty faced by the country. However, there are a few assumptions within which the model will operate.

It was indicated that, by identifying prospering sectors, policy makers would be able to make informed decisions on the skills needs in the economy. In this way programmes of skills development can be focused on the specific skills that are crucial to drive employment and equally so, enhanced economic growth. We cannot introduce programmes for skills acquisition without identifying the kinds of skills that need to be promoted. In order to promote economic growth and halve unemployment and poverty as per AsgiSA, the government needs to develop the right kind of skills programmes (South African Government Information 2006: 1).

The macro-economic fundamentals that have been put in place by the present government are investor friendly. However, it has been argued that foreign investors have only shown limited interest in acquiring and expanding investment in the country. There are many factors that could have contributed to the lack of foreign investment attraction in this country. Arvanitis (2006: 64) argues that the low level of savings rate in South Africa has inhibited private investment. South Africa is a nation of people who save less; the

Gauteng Provincial Economic Review Outlook reports that the level of savings reached a bottom of 13% in 2006 (Gauteng Provincial Treasury 2007: 8).

The GDP growth for the years 1994 to 2002 is said to have been at the lower levels of 1.5% (Arvanitis 2006: 64). However the situation has improved over the years. Even though the GDP growth was at lower levels during 2002, in 2006 GDP growth has seen major improvements. The GDP growth for 2006 was indicated at 5%, which was at the same rate as the world economy (SARB (1) 2007: 1). The SARB identified the manufacturing, the construction and most sub-sectors in the tertiary sector as the sectors that showed more growth in the 4th quarter of 2006. The increased activity in the trade and finance sub- sectors has enabled the increased GDP growth for that year.

Private sector credit extension also reached high levels leading to increased spending and threatening the inflation rate as a result. The lower interest rate environment this past year resulted in credit being cheaper and more easily accessible to households. In order to control the high levels of credit extension, the Reserve Bank had to increase interest rates in their last four meetings of the year in 2006 (SARB (1) 2007: 2).

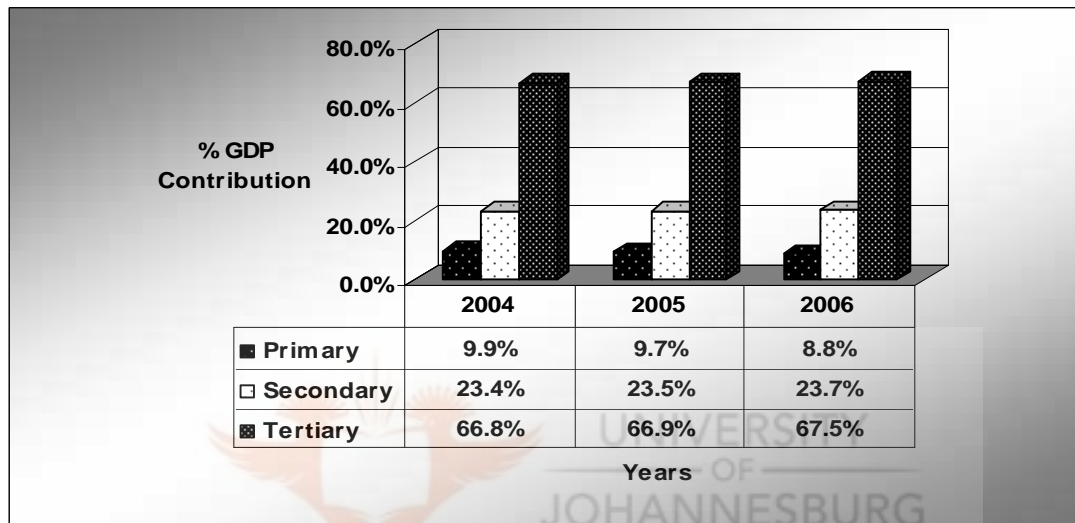
In order to assess the contributions of the different sectors to GDP growth in the recent past, sectoral contribution to GDP growth is analysed from 2004 to 2006. The contributions of the primary, secondary and tertiary sectors are discussed in the following paragraphs.

4.4 Sectoral contributions to GDP

Looking at figure 4.1, it becomes clear that the major contribution to the GDP has been by the tertiary sector. For the period under review, the tertiary sector contributed more to the GDP growth, followed by the secondary sector. The primary sector has the lowest contributor in the GDP growth as indicated earlier.

The secondary sector displays a constant trend in contribution but this is lower than the tertiary sector. The trend of contribution by the tertiary sector is showing a continuing increase. The graph shows that the highest contribution of the tertiary sector to the GDP growth was in 2006 at 67.5% and the lowest 66.8% in 2004 (StatsSA 2007: 12). The highest contribution by secondary sector was 23.7% in 2006.

Figure 4.1 % Sectoral contribution to GDP (2004 – 2006)



Source: StatsSA, GDP, 2007 (own calculations)

The primary sector clearly shows a lower contribution to the GDP growth during the period under review; the percentage contribution was below 10% and reached an even lower level of 8.8% in 2006. Figure 4.1 shows that the tertiary sector is contributing about three times more than the secondary sector and six times more than the primary sector.

The findings presented in figure 4.1 gives South Africa more reason to invest in the tertiary sector in order to experience increased GDP growth and hence increased employment. The country's drive for growth must be concentrated more on the tertiary industries and the secondary industries and less on the primary industries. An in-depth analysis of the two sectors, showing more contributions to the GDP growth- tertiary and secondary- follows.

4.4.1 Analysis of performance within the tertiary sector

The tertiary sector is showing a high contribution to GDP in wholesale & retail trade, transport & communication, finance and the general government services. Finance & business services are leading the pack, followed by wholesale & retail trade as shown by table 4.1 below. These sub-sectors made contributions of about 21% and 15% to the GDP respectively in 2005 (StatsSA 2006: 56). These were followed by the transport &

Table 4.1 Tertiary sector's performance (2004- 2006)

Tertiary sector	2004	2005	2006
Wholesale & retail trade	14.9%	15.1%	15.4%
Transport & communication	10.7%	10.7%	10.8%
Finance & business services	20.9%	20.9%	21.6%
General government services	14.4%	14.2%	13.9%
Personal services	5.9%	5.9%	5.9%
Totals	66.8%	66.9%	67.5%

Source: StatsSA, GDP, 2007 (Own calculations)

communication sub-sector with a contribution of about 11% for the same year. The total contribution by the tertiary sector averaged 67% as indicated earlier on. This means that the contribution of the tertiary sector to the total GDP growth is 67%. The tertiary sector is the highest contributor to the GDP growth. For 2006, the contributions of the tertiary sector increased to 67.5%- an increase of 0.7%.

It was indicated that the recent GDP growth seen in South Africa, has been propelled by the tertiary sector. This comes as a result of high consumption expenditure by households as interest rates were left relatively lower prior to 2006, making credit cheaper (South African Reserve Bank (1) 2007: 7). However, real consumption expenditure by households started to slow down in the first quarter of 2007. One of the reasons that contributed to the slow-down is the high cost of credit resulting from the tight monetary policy the Reserve Bank employed towards the end of 2006 (South African Reserve Bank (1) 2007: 7).

In order to achieve skills development, the sub-sectors of finance, transport & communication and wholesale & retail trade have to be researched further. The secondary

sector is also analysed in the same way in table 4.3 below to find out the sub-sector that contribute highly to the GDP growth.

4.4.2 Analysis of performance within the secondary sector

The contribution by the secondary subsectors shows manufacturing to be the clear growth propeller. This sub-sector indicates the highest growth contributions for the three years in succession.

Table 4.2 Secondary sector's performance (2004- 2006)

Secondary sector	2004	2005	2006
Manufacturing	16.3%	17.2%	18.0%
Electricity gas & water	2.2%	2.3%	2.4%
Construction	2.6%	2.9%	3.3%
Totals	21.2%	22.4%	23.7%

Source: StatsSA, GDP, 2006

Construction is not showing a big contribution to the GDP growth and neither is electricity. However, the trend of the construction sub-sector is an increasing one, from 2.6% in 2004 to 3.3% in 2006. These results are contrary to the boom the sub-sector is experiencing at the moment.

The primary sector is not analysed further as this sector was not found to be contributing significantly to the GDP growth. This sector is dwindling and losing its importance in the economy.

4.4.3 Significance of the contributions by these sub-sectors

The identification of the sub-sectors of the tertiary and the secondary sectors gives an indication of the skills that should be promoted when skills development are put in place. In the tertiary sector, the finance & business service has been identified as the high growth sub-sector. The wholesale & retail trade is the second best performing sub-sector and it was also identified as a good performer earlier on. These sub-sectors are also

performing well in employment. On these grounds, finance & business services, together with the wholesale & retail trade sectors, have to be promoted for further investment in the pursuit of further economic growth and more employment.

In the secondary sector the manufacturing and construction sub-sectors have been identified as high contributors to the GDP growth. Construction is also promoted as one of the sub-sectors with potential for more growth. These two sub-sectors also have to be promoted with investment in order to promote more economic growth and employment.

The fact that there is still high unemployment in the economy whilst there are high growth sectors could mean that South Africa is experiencing structural unemployment. In structural unemployment, unemployment exists irrespective of a growing economy (Barker 2003: 202). The jobs that are available require certain skills that people looking for work may be lacking. A skills shortage is a characteristic of structural unemployment. We argued earlier that South Africa is experiencing skills shortage. With the identified sectors showing more growth and employment potential, unemployment needs to be decreasing.

The fact that unemployment is not decreasing at the rate of the increasing economic growth rate could mean that skills needed in the job market cannot be readily accessed. In this way companies are not able to absorb more labour to fill the available vacancies in the economy. Although there may be a combination of many types of unemployment, this research regards structural unemployment as the integral part of the unemployment experienced in South Africa currently.

This kind of research should be done on a continuing basis to allow for the changes that might happen in the economy. It would also be helpful for policy makers to develop economic models that could project growth contributions by the different industries. In this way policy makers would be proactive and plan for the skills development needs of the future rather than react when a skills shortage present itself. By being proactive the skills reserves can be built and shortages of skills be prevented in the economy.

4.5 Conclusion

This chapter looked at the contributions of the different sectors- primary, secondary and tertiary- to the GDP growth of the country. The objective was to identify the high-growth sectors and consequently get an indication of the sectors to be promoted for investment.

The objectives of AsgiSA and Jipsa were discussed to show the commitment of the government towards encouraging more economic growth and skills development. The government is committed to halving unemployment and poverty by 2014 and increasing the economic growth rate to 6%. These objectives can be achieved only when the constraints to economic growth (for example skills shortages) are eliminated in the economy.

Government has come up with measures to eradicate the constraints to growth. These measures include, increasing the offering of mathematics and science in schools and initiating programmes of skills development. However, the country is facing challenges regarding qualified mathematics and science teachers- especially in the previously disadvantaged schools.

The primary sector in South Africa is dwindling. An analysis of the background of the country's economic performance has shown that the mining sector has lost its importance in the economy. The sectors that have shown more growth consistently are the secondary and the tertiary sectors. In the tertiary sector, the finance & business service is taking the lead followed by the wholesale & retail trade. In the secondary sector, manufacturing is making the highest contributions to GDP growth. Construction is also regarded as having potential for growth because of the government infrastructural developments and the 2010 World Cup preparations.

The sectors that are showing more contributions to GDP growth have been identified as the ones employing more labour as well. In this way the economy is growing but not enough labour is absorbed by the labour market. This has led to the conclusion that the

major component of the unemployment South Africa is experiencing is structural in nature.

However, this kind of research would have to be continued in order to identify the changes in the economy as and when they happen. The dynamic nature of the economy and the multiplier effects mean that the direction of events could change unexpectedly. Therefore policy makers have to be alert at all times for changes in the economic outlook and be proactive.



Chapter 5: Summary of the main findings and recommendations

5.1 Introduction

This chapter will summarise the main findings of the study and make recommendations on the approach the country should take to eliminate the high unemployment rate. The theories employed and the research done will be taken into consideration to suggest the way forward for helping eliminate the skills shortage and unemployment.

5.2 Summary of the main findings

The purpose of this study was to investigate the reasons for the skills shortage that the country is currently experiencing, and the factors that could eliminate the high unemployment rate. In order to achieve these objectives the study was divided into five chapters. Chapter one gave an outline of the structure of the research. The background to the skills shortage showed that the skills shortage is related to the lack of commitment to human development. This background laid down the structure of the study.

Chapter two discussed the theory of human capital development to establish its importance to skills acquisition. The relationship amongst the concepts of human capital development, education and productivity were identified as positive. A few aspects were identified as contributors to the lack of skills. Political policies of the past were identified as one of the reasons that led to unequal education for the different population groups and consequently the lack of skills. Arguments were presented about the initiatives the government is taking to develop skills. AsgiSA is looking into growing the economy by 6% in 2014 and halve unemployment and poverty.

However the skills shortage is presenting constraints for those objectives to be met. Jipsa has therefore been initiated to help speed up the skills acquisition. This research has shown that the process of skills acquisition cannot be achieved over night. The shortage of properly qualified educators in previously disadvantaged schools will continue to present problems for the throughput of matriculants with the critical subjects of

mathematics and science. This will also translate into fewer graduates in the commerce and science fields.

The continuing emigration of professionals has also contributed to the loss of critical skills in the economy. This emigration started even before the dispensation of democracy in 1994. By losing so many skilled professionals it was argued that South Africa is unable to replace these skills because of less investment in human capital.

It was also argued that, in order for the country to achieve even higher levels of economic growth, the attraction of FDI is important. The increasing economic growth will lead to more employment but for the country to attract more FDI; our labour market regulations should be more flexible. An analysis of the labour market laws in the country proved them to be inflexible and unfriendly towards FDI. However, it was argued that the economic fundamentals set by the government are positive and encouraging for growth. The critics of the macro-economic policies argue that more needs to be done to encourage investment. Furthermore the ANC government's critics feel that the macro-economic stability is being over-emphasised without mentioning its costs to the economy. Critics argue that the situation of the poor has been worsened by the ANC government.

In chapter three, a critical analysis of employment was done. Employment was analysed by the different sectors and according to educational qualifications, to get a sense of the level of education attained by the work force. It was discovered that the level of education of the workforce was mainly secondary education qualifications and only a few of the workers possess tertiary education qualifications. Furthermore, the black population group is more disadvantaged as far as education qualifications are concerned. The other population group (whites, coloureds and indians) has higher educational qualifications and in this way is advantaged in terms of employment.

A look at unemployment theories set the stage for the critical analysis of unemployment in the country. An analysis of unemployment illustrated that South Africa has one of the highest unemployment rates by international standards. Unemployment was at the level

of 26% in 2006 from a high of 30% in 2002. Even though this figure fell to 25.5% by March 2007, it is still high. Black unemployment was the highest of all the population groups. An analysis of unemployment by educational qualifications still showed blacks to have lower qualifications except for in the primary education level. The concentration of unemployed for all the population groups was at the secondary education qualifications. Thus it was found that South Africa is not investing sufficiently in the human resources development of its workforce.

An analysis of the employment and unemployment situation was done to identify the sectors that are employing more labour. The assumption is that the sectors employing more labour are the ones experiencing more growth. By identifying such sectors investment can be promoted in the relevant direction and thus economic growth and employment can be promoted. The tertiary sector was found to be the highest employing sector, followed by the secondary sector. The primary sector was found to be dwindling and losing its importance in the economy.

Chapter 4 set out to check the contributions of all the economic sectors to GDP growth. The government initiatives of AsgiSA and Jipsa were outlined to see what the objectives for economic growth are. AsgiSA objectives of growing the economy by 6% and halving unemployment and poverty by 2014 would be difficult to achieve with the problem of the skills shortage. The government has therefore ensured that skills developments are also achieved through Jipsa.

The results of the sectoral contribution to GDP showed the tertiary sector to be contributing relatively more to GDP growth, followed by the secondary sector. The primary sector was found to be contributing much less. The sectors that are employing more labour are therefore the ones contributing more to economic growth. This leads to the assumption that, by promoting bigger investment into these sectors, more growth can be achieved and employment enhanced.

It is interesting again to find that the South African Reserve Bank has also identified manufacturing and the construction sub-sectors (secondary) as the sectors that showed more growth in the last quarter of 2006. The Reserve Bank also identified most sub-sectors in the tertiary sectors as being top performers. This research has identified the high-growth sub-sectors as the following: manufacturing and construction (secondary sector); wholesale & retail trade and finance & business services (tertiary sector). The increase in the GDP growth is not absorbing the expected quantity of labour. The sectors that are showing more contributions to GDP growth are the ones employing more labour. However, there is still high unemployment in the economy. In this way it has been assumed that the skills shortage the country is experiencing is the main cause of this unemployment.

5.3 Conclusions

South Africa is not contributing enough to the human capital development of its workforce. The human capital development is very important and a prerequisite for the developing of critical skills in the economy. The education of the labour force in the country is concentrated mainly in the secondary education level. In order to train workers in critical skills these workers should possess the tertiary education qualifications. South Africa should develop critical skills that have been identified as skills in engineering, science and commerce.

South Africa's labour laws are inflexible and this will serve as a deterrent for this country attracting FDI. The country needs FDI in order for the economy to grow at a level that will be able to absorb more labour and reduce unemployment.

An analysis of the sectors employing more labour and contributing more to GDP growth, led to the argument that the unemployment South Africa is experiencing has a high component of structural unemployment. The economy is growing at a relatively high rate but not as many jobs are being created. In this way it was argued that a skills shortage is

the reason why so many people are unemployed. The skills that are needed in the economy are not the ones possessed by most of the people looking for employment.

5.4 Recommendations

The government has already taken the initiative to empower the nation with education but more still needs to be done. Equal education is now offered for all citizens. The education of critical subjects like maths and science is encouraged in schools. However, the nation has to be encouraged to realise the achievement of the highest education levels possible. This means going beyond the secondary education level. South Africans have to be conscious of the fact that education is not only about achieving the secondary education certificate. The importance of critical skills for employment must be emphasised. A new level of knowledge must be imparted to the nation of South Africa.

The current critical skills that are being developed and the learnerships that the government is promoting should be inclusive of all the needs of important production sectors in the economy. Proper analyses of critical skills have to be made and not a random choice of skills training. The process has to be all-inclusive involving business and institutions of higher learning. The involvement of institutions of higher learning is important as they are in a position to shed more light on the kind of education structure that can be followed to succeed in the training for critical skills.

Furthermore, the institutions of higher learning are also in a position to advice on the subjects and disciplines of learning that can be pursued to achieve specific objectives. The government has to negotiate with institutions of higher learning to set up the way forward in the acquisition of skills. The step of making the business sector part of the process has been taken but the perspective of academics is needed.

Manufacturing, wholesale & retail trade, construction and finance & business services sectors have to be promoted for investment projects. Investment in the financial services sector of South Africa by multinational firms, which has started happening, will help

promote the finance and business sector that has already shown more growth and employment potential. These sub-sectors are also showing more potential for increasing GDP growth. By targeting more investment in these sub-sectors, the country can realise its optimum production potential. What is important is also the development of the critical skills that are needed in the production processes of these identified economic sectors.

5.5 Areas of future research

This research did not advance to auditing the kinds of skills that are inherent in the sub-sectors identified as high-growth ones. For this research to be meaningful in implementation, the skills inherent in those sub-sectors have to be identified. By identifying these critical skills, policy makers would be able to properly plan for the learnership programmes and human resources development. The education curricula could then also be structured in the right way.

The business sector also has a role to play in the whole process. The business sector would be in a position to advise on the kinds of skills and learnerships to be implemented. The restructuring of the learnerships could also be developed by the business sector. To improve the findings of this research further analysis should be done on the teaching of maths and science in schools. Institutions of higher learning should also encourage students to follow the disciplines of studies identified as critical. The importance of these subjects should also be highlighted by policy makers to increase awareness thereof.

The interesting aspect that has been raised by this study is the fact that blacks are still lagging behind with education qualifications and employment. It was expected that much has improved within that population group. Affirmative action was introduced with the hope that it would result huge improvements. More has to be done to bring this population group on par with other population groups.

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7. Appendix

3. Workers (employers, employees and self-employed) aged 15-65 years 3.1 By main industry and sector

Main industry	1 000			
	Formal	Informal	Domestic	Total
Total	8 666	2 894	850	12 451
Agriculture, hunting, forestry and fishing	607	704	-	1 318
Mining and quarrying	396	*	-	399
Manufacturing	1 512	207	-	1 726
Electricity, gas and water supply	100	*	-	103
Construction	548	314	-	864
Wholesale and retail trade	1 946	1 041	-	2 996
Transport, storage and communication	415	139	-	555
Financial intermediation, insurance, real estate and business services	1 126	66	-	1 194
Community, social and personal services	1 987	193	-	2 183
Private households with employed persons	11	226	850	1 087
Extrajurisdictional organisations and foreign governments/ other/ unspecified	19	*	-	28

* For all values of 10 000 or lower the sample size is too small for reliable estimates.

Total includes the 'don't know' and 'unspecified' categories of the sector variable.

Due to rounding, numbers do not necessarily add up to totals.

z. Estimated population of working age (15-64 years)

2.5 By highest level of education, sex and labour market status (official definition of unemployment)

2.5.3 Other¹

Highest level of education	N (1000)													
	Male						Female						Total	Inactive
	Total	Inactive	Economically active				Total	Inactive	Economically active					
		Total	Workers	Unemployed	Rate			Total	Workers	Unemployed	Rate			
Total	3 192	848	2 345	2 111	233	9.9	3 419	1 491	1 928	1 661	266	13.8	6 612	2 340
None	49	27	21	20	*	6.2	65	50	15	12	*	17.5	113	77
Grade 0 to Grade 3/ std 1	47	21	25	24	*	5.4	41	24	17	14	*	16.3	88	46
Grade 4/std 2	30	12	18	15	*	16.3	38	23	14	11	*	20.4	68	35
Grade 5/std 3	48	18	30	24	*	19	54	32	22	17	*	22.9	102	50
Grade 6/std 4	70	28	42	38	*	7.9	85	53	32	24	*	24.7	155	82
Grade 7/std 5	127	47	80	66	13	16.8	168	91	76	61	16	20.5	294	138
Grade 8/std 6	210	95	115	94	22	18.9	234	133	101	79	22	22	444	228
Grade 9/std 7	234	102	132	98	34	26	270	159	111	69	41	37.4	504	261
Grade 10/std 8	424	129	294	246	49	16.6	400	204	195	151	45	22.9	823	333
Grade 11/std 9	192	84	108	86	22	20.1	216	124	92	73	19	20.2	409	208
Grade 12/std 10	1 035	209	826	764	62	7.5	1 176	437	739	661	78	10.5	2 212	647
NTC I TO NTC III	81	14	68	63	*	7	16	*	11	*	*	18.9	97	19
Dipl./Cert. With less than Grade 12/Std 10	51	*	46	43	*	6.2	39	*	31	31	*	1.1	90	13
Dipl./Cert. with Grade 12/Std 10	296	23	273	267	*	2.3	336	71	265	254	11	4.1	632	94
Degree/Higher	280	31	249	248	*	0.5	260	63	196	186	11	5.4	539	94
Other	*	*	*	*	*	1.9	*	*	*	*	*	*	16	*
Don't know/ Unspecified	11	*	*	*	*	15.9	16	*	*	*	*	13.4	26	*

¹Other includes Coloured, Indian/Asian and white. These population groups are aggregated due to the small sample size

* For all values of 10 000 or lower the sample size is too small for reliable estimates.

Totals include unspecified sex.

Due to rounding numbers do not necessarily add up to totals.

2. Estimated population of working age (15-65 years)
 2.5 By highest level of education, sex and labour market status (official definition of unemployment)
 2.5.2 Black African

highest level of education	N (1000)																
	Male								Female								
	Total	Inactive	Economically active				Total	Inactive	Economically active				Total	Inactive	Total		
			Total	Workers	Unemployed	Rate			Total	Workers	Unemployed	Rate			Total	Workers	Unemployed
Total	11 400	4 548	6 852	5 142	1 710	25.0	12 129	6 296	5 833	3 708	2 124	36.4	23 530	10 845	12 684	8 850	3 834
None	669	304	364	314	51	13.9	989	647	342	272	71	20.6	1 658	951	707	585	121
Grade 0 to Grade 3/ std 1	455	180	275	218	57	20.7	491	293	198	151	47	23.8	946	473	473	369	104
Grade 4/std 2	336	141	195	153	42	21.6	344	201	143	107	36	25.2	680	342	338	260	78
Grade 5/std 3	401	171	231	179	52	22.6	392	214	178	128	50	28.3	793	384	409	306	103
Grade 6/std 4	571	246	325	259	66	20.3	577	322	254	185	69	27.2	1 147	568	579	444	135
Grade 7/std 5	912	425	488	383	105	21.5	875	502	374	248	125	33.6	1 788	926	861	631	230
Grade 8/std 6	1 087	557	530	401	129	24.4	1 075	658	416	290	128	30.2	2 162	1 215	946	691	255
Grade 9/std 7	1 240	661	579	385	194	33.6	1 262	810	452	250	202	44.7	2 502	1 471	1 032	635	397
Grade 10/std 8	1 377	671	705	485	221	31.3	1 449	843	606	335	272	44.8	2 826	1 515	1 312	819	492
Grade 11/std 9	1 343	551	792	553	239	30.2	1 573	845	727	371	356	49	2 916	1 396	1 519	924	595
Grade 12/std 10	2 248	534	1 715	1 229	485	28.3	2 283	849	1 434	782	652	45.5	4 532	1 383	3 149	2 012	1 137
NTC I TO NTC III	51	21	31	20	11	34.7	31	14	17	12	*	31.6	82	34	48	32	16
Dipl./Cert. With less than Grade 12/Std 10	59	*	51	42	*	18.1	66	11	55	36	18	33.7	126	20	106	78	28
Dipl./Cert. with Grade 12/Std 10	408	45	363	324	39	10.7	498	56	442	366	76	17.2	906	101	805	691	115
Degree/Higher	188	*	178	171	*	4.2	190	14	176	162	15	8.4	379	24	354	332	22
Other	13	*	*	*	-	-	*	*	*	*	*	80.4	19	12	*	*	*
Don't know/ Unspecified	41	17	24	21	*	9.7	27	12	15	13	*	13.5	68	29	39	34	*

* For all values of 10 000 or lower the sample size is too small for reliable estimates.
 Totals include other and unspecified population groups and sex.
 Due to rounding numbers do not necessarily add up to totals.



Labour force survey, March 2007

The Labour force survey below is for March 2006.

2. Estimated population of working age (15-65 years)
 2.5 By highest level of education, sex and labour market status (official definition of unemployment)
 2.5.3 Other¹

Highest level of education	Male					Female					Total							
	Total	Not economically active	Economically active			Total	Not economically active	Economically active			Total	Not economically active	Economically active					
			Workers	Unemployed	Rate %			Workers	Unemployed	Rate %			Workers	Unemployed	Rate %			
N (1 000)																		
Total	3 286	842	2 443	2 194	249	10.2	3 372	1 478	1 894	1 663	230	12.2	6 661	2 323	4 338	3 858	480	11.
None	56	30	26	23	3	10.3	66	49	18	15	2	13.6	122	79	43	38	5	11.
Grade 0 to Grade 3/ Std 1	52	26	27	22	4	15.4	41	28	14	11	3	22.2	93	53	40	33	7	17.
Grade 4/ Std 2	28	8	19	17	2	12.9	44	28	16	14	2	13.3	71	36	35	31	5	13.
Grade 5/ Std 3	38	9	29	22	7	24.3	58	33	25	16	10	38.2	96	41	54	38	17	30.
Grade 6/ Std 4	75	29	46	37	9	18.9	81	47	34	26	8	24.1	156	77	80	63	17	21.
Grade 7/ Std 5	138	60	78	61	16	20.8	161	93	69	56	12	18.1	299	153	147	118	29	19.
Grade 8/ Std 6	223	85	138	102	36	26.0	236	143	93	72	21	22.2	459	228	231	175	57	24.
Grade 9/ Std 7	248	102	146	117	29	19.9	239	140	98	74	24	24.7	487	243	244	191	53	21.
Grade 10/ Std 8	378	120	259	224	34	13.3	383	210	173	137	36	20.8	761	330	432	361	70	16.
Grade 11/ Std 9	177	69	108	87	20	18.9	173	98	75	56	19	25.3	350	167	183	144	39	21.
Grade 12/ Std 10	1 124	203	921	847	74	8.1	1 228	445	782	702	80	10.3	2 354	650	1 704	1 549	155	9.
NTC I to NTC III	77	15	63	62	1	1.6	28	11	17	17		1.6	105	26	79	78	1	1.
Dipl./cert. with less than Grade 12/ Std 10	37	4	32	30	2	7.5	35	6	29	29		0.7	72	10	61	59	3	4.
Dipl./cert. with Grade 12/ Std 10	292	33	259	255	4	1.6	343	81	262	252	10	3.9	635	114	521	507	14	2.
Degree and higher	325	41	283	277	7	2.3	238	56	182	181	2	0.8	563	97	466	458	8	1.
Other	6	5	2	2	-	-	10	7	3	3	-	-	17	12	5	5	-	-
Don't know/ unspecified	12	3	8	8	-	-	8	5	4	4	-	-	20	8	12	12	-	-

¹ Other includes coloured, Indian/Asian and white. These population groups are aggregated due to the small sample size.

* For all values of 10 000 or lower the sample size is too small for reliable estimates.

Totals include unspecified sex.

Due to rounding, numbers do not necessarily add up to totals.

2. Estimated population of working age (15-65 years)
 2.5 By highest level of education, sex and labour market status (official definition of unemployment)
 2.5.2 Black African

Highest level of education	Male					Female					Total								
	Total	Not economically active	Economically active			Total	Not economically active	Economically active			Total	Not economically active	Economically active						
			Total	Workers	Unemployed			Rate	Total	Workers			Unemployed	Rate	Total	Workers	Unemployed	Rate	
N (1 000)					%					N (1 000)					%				
Total	11 112	4 502	6 610	4 906	1 705	25.8	12 048	6 290	5 758	3 671	2 087	36.2	23 162	10 792	12 369	8 577	3 792	30.7	
None	642	276	366	301	65	17.7	1 025	637	387	300	87	22.5	1 666	913	753	601	152	20.2	
Grade 0 to Grade 3/ Std 1	489	203	287	236	50	17.5	481	278	203	155	48	23.7	970	481	490	391	98	20.1	
Grade 4/ Std 2	373	153	220	174	46	20.8	340	183	157	124	33	21.1	713	336	377	298	79	20.9	
Grade 5/ Std 3	420	181	239	180	58	24.4	449	251	199	147	52	26.1	869	432	437	327	110	25.2	
Grade 6/ Std 4	600	257	342	267	75	22.0	611	341	270	196	73	27.2	1 210	598	612	463	149	24.3	
Grade 7/ Std 5	922	445	477	363	113	23.8	923	531	393	269	124	31.5	1 845	975	870	633	237	27.3	
Grade 8/ Std 6	1 123	550	573	428	145	25.3	1 160	715	445	300	145	32.5	2 283	1 265	1 019	728	290	28.5	
Grade 9/ Std 7	1 192	655	537	378	159	29.5	1 222	774	448	268	179	40.0	2 414	1 429	984	647	338	34.3	
Grade 10/ Std 8	1 293	604	689	490	199	28.9	1 405	869	535	293	242	45.2	2 698	1 473	1 225	783	441	36.0	
Grade 11/ Std 9	1 176	525	650	427	223	34.4	1 394	737	657	333	324	49.3	2 569	1 262	1 307	760	547	41.9	
Grade 12/ Std 10	2 111	538	1 573	1 097	476	30.2	2 226	835	1 391	742	649	46.7	4 337	1 373	2 964	1 839	1 125	38.0	
NTC I to NTC III	47	19	28	22	*	22.0	37	19	18	12	*	36.8	84	38	46	33	13	27.8	
Dip./cert. with less than Grade 12/ Std 10	66	13	53	40	13	24.0	60	12	48	31	17	35.4	126	25	101	71	30	29.4	
Dip./cert. with Grade 10 or higher	403	44	359	302	58	16.0	498	74	424	330	94	22.1	901	118	783	632	151	19.3	
Degree and higher	198	14	185	170	15	8.0	184	12	173	164	*	4.9	383	26	357	334	23	6.5	
Other	21	14	*	*	*	6.0	*	*	*	*	*	21.2	31	22	*	*	*	8.7	
Don't know/ unspecified	36	11	25	22	*	13.7	25	15	*	*	*	39.4	61	26	35	28	*	20.8	

* For all values of 10 000 or lower the sample size is too small for reliable estimates.

Totals include unspecified sex.

Due to rounding, numbers do not necessarily add up to totals.

Table 1 - Quarterly value added by industry and gross domestic product at constant 2000 prices (R million)

Year	Quarter	Agriculture, forestry and fishing	Mining and quarrying	Manufacturing	Electricity, gas and water	Construction	Wholesale and retail trade; hotels and restaurants	Transport, storage and communication
1993		24 141	66 331	128 849	19 084	19 148	92 126	50 944
1994		26 040	66 636	132 287	20 191	19 701	94 437	53 290
1995		20 850	64 567	140 877	20 592	20 401	99 994	58 923
1996		25 850	64 034	142 824	22 814	20 813	103 682	62 538
1997		26 070	65 100	146 692	23 699	21 529	104 147	67 312
1998		24 686	65 011	146 336	22 206	20 260	105 518	70 983
1999		26 213	64 116	147 179	22 097	19 985	113 553	74 705
2000		27 451	63 391	159 107	22 789	21 114	122 702	80 872
2001		26 558	63 325	164 131	21 956	22 154	125 018	85 646
2002		28 292	63 927	168 729	22 722	23 441	127 870	93 390
2003		27 700	66 502	166 405	23 151	25 053	136 138	98 864
2004		28 083	67 363	174 197	23 835	27 830	144 111	103 500
2005		29 232	68 987	182 917	24 460	31 134	153 497	109 165
2006		25 390	68 536	191 630	25 207	35 401	163 754	115 086
1997	1	4 843	15 882	34 967	5 765	5 332	24 656	16 050
	2	9 579	16 200	36 168	5 979	5 368	24 816	16 201
	3	6 948	16 540	37 920	6 055	5 306	25 770	17 319
	4	4 700	16 479	37 636	5 899	5 523	28 905	17 741
1998	1	4 687	16 248	35 635	5 457	5 181	24 672	17 335
	2	9 249	16 249	36 245	5 590	5 051	25 214	17 405
	3	6 708	16 298	37 349	5 630	4 911	26 146	18 018
	4	4 043	16 215	37 108	5 529	5 116	29 487	18 225
1999	1	5 142	15 886	34 874	5 237	4 978	25 766	17 730
	2	10 221	15 966	35 787	5 515	4 972	26 761	18 134
	3	7 149	16 123	37 826	5 677	4 894	28 301	19 200
	4	3 701	16 141	38 692	5 667	5 140	32 726	19 641
2000	1	4 370	15 706	37 340	5 450	5 063	28 203	19 291
	2	8 760	15 897	38 666	5 723	5 179	29 261	19 784
	3	9 766	15 888	41 032	5 915	5 239	30 498	20 763
	4	4 556	15 901	42 068	5 700	5 633	34 744	21 034
2001	1	4 825	15 608	39 721	5 337	5 465	29 344	20 378
	2	10 067	15 953	40 520	5 482	5 510	29 946	20 765
	3	7 789	15 973	41 671	5 652	5 429	30 771	21 909
	4	3 878	15 780	42 218	5 485	5 750	34 956	22 595
2002	1	5 536	15 523	39 910	5 419	5 704	29 707	22 192
	2	11 532	15 949	41 443	5 679	5 790	30 441	22 789
	3	7 151	16 183	43 652	5 872	5 784	31 603	23 929
	4	4 073	16 272	43 725	5 751	6 163	36 119	24 480
2003	1	5 062	16 057	40 740	5 570	6 084	31 276	23 728
	2	11 936	16 583	40 863	5 766	6 164	32 195	24 165
	3	7 280	16 964	42 499	5 969	6 197	33 855	25 140
	4	3 423	16 897	42 304	5 847	6 608	38 812	25 831
2004	1	4 723	16 830	41 254	5 714	6 602	32 811	24 678
	2	10 879	16 713	42 548	5 932	6 819	33 780	25 181
	3	8 309	17 333	45 093	6 171	6 975	35 244	26 516
	4	4 172	16 487	45 302	6 018	7 434	42 277	27 126
2005	1	5 624	17 709	42 715	5 896	7 401	35 115	26 133
	2	10 179	17 412	45 085	6 096	7 644	35 939	26 676
	3	9 206	17 206	47 630	6 214	7 760	37 585	27 904
	4	4 223	16 660	47 487	6 254	8 329	44 859	28 453
2006	1	5 298	16 655	44 782	6 008	8 340	37 257	27 604
	2	8 400	16 985	46 814	6 271	8 635	38 441	28 129
	3	7 519	17 146	49 546	6 421	8 860	40 404	29 479
	4	4 172	17 750	50 488	6 507	9 566	47 653	29 876
2007	1	5 143	16 849	47 356	6 187	9 722	39 652	29 084
	2	8 392	17 013	49 057	6 443	10 060	40 568	29 667

Table 1 - Quarterly value added by industry and gross domestic product at constant 2000 prices (R million) (concluded)

Year	Quarter	Finance, real estate and business services	General government services	Personal services	Total value added at basic prices	Taxes less subsidies on products	GDP at market prices	Total value added at basic prices excluding agriculture
1993		117 397	130 535	39 128	664 083	70 393	755 009	659 992
1994		121 688	131 835	41 034	704 550	74 480	779 424	678 110
1995		125 955	132 945	43 298	725 682	77 928	803 710	706 532
1996		134 502	135 513	44 449	756 515	81 738	838 326	731 335
1997		140 832	136 582	44 434	776 398	84 117	860 515	750 729
1998		144 074	135 560	47 194	781 828	83 140	864 968	757 142
1999		151 437	134 403	49 020	802 708	82 657	885 365	776 495
2000		156 252	133 158	51 382	838 218	83 930	922 148	810 767
2001		169 015	131 914	52 537	862 254	85 120	947 374	835 696
2002		179 623	132 859	53 852	894 706	87 416	982 122	866 414
2003		187 062	136 018	56 074	922 966	89 797	1 012 763	895 267
2004		201 756	139 349	57 183	967 208	94 563	1 061 771	939 125
2005		212 885	144 166	60 241	1 016 684	99 133	1 115 817	987 452
2006		230 402	148 589	62 442	1 066 438	104 928	1 171 366	1 041 048
1997	1	34 467	34 062	11 013	187 036	20 954	207 990	182 291
	2	35 085	34 074	11 138	194 609	21 024	215 633	185 129
	3	35 437	34 199	11 229	196 723	21 063	217 786	189 877
	4	35 844	34 247	11 054	198 029	21 076	219 105	193 432
1998	1	34 990	33 860	11 366	189 430	20 660	210 090	184 743
	2	35 989	33 895	11 697	196 583	20 453	217 036	187 334
	3	36 503	33 890	12 051	197 504	20 868	218 372	190 796
	4	36 592	33 915	12 080	198 312	21 159	219 471	194 268
1999	1	36 805	33 590	12 019	192 026	20 263	212 289	186 884
	2	37 698	33 646	12 173	200 874	20 226	221 100	190 653
	3	38 335	33 627	12 437	203 569	20 872	224 441	196 420
	4	38 599	33 540	12 391	206 239	21 296	227 535	202 538
2000	1	38 127	33 282	12 483	199 314	20 514	219 828	194 945
	2	38 712	33 330	12 710	208 022	20 546	228 568	199 262
	3	39 377	33 316	13 103	214 896	21 222	236 118	205 131
	4	40 037	33 231	13 086	215 989	21 648	237 637	211 433
2001	1	40 528	33 080	12 987	207 272	20 843	228 115	202 447
	2	41 876	33 036	13 050	216 216	20 862	237 078	206 149
	3	42 867	32 920	13 305	218 287	21 478	239 765	210 498
	4	43 743	32 878	13 195	220 479	21 937	242 416	216 601
2002	1	43 438	32 801	13 151	213 381	21 041	234 422	207 845
	2	44 865	33 159	13 312	224 959	21 733	246 692	213 427
	3	45 380	33 379	13 681	226 613	22 162	248 775	219 462
	4	45 940	33 520	13 708	229 753	22 480	252 233	225 679
2003	1	45 488	33 534	13 750	221 290	21 679	242 969	216 227
	2	46 597	33 992	13 977	232 237	22 410	254 647	220 301
	3	47 294	34 188	14 307	233 692	22 583	256 275	226 412
	4	47 684	34 304	14 039	235 748	23 125	258 873	232 325
2004	1	48 180	34 139	14 101	229 032	22 367	251 399	224 308
	2	50 455	34 734	14 160	241 201	23 505	264 706	230 322
	3	51 258	35 083	14 470	246 452	24 013	270 465	238 143
	4	51 863	35 393	14 452	250 523	24 678	275 201	246 351
2005	1	52 106	35 386	14 835	242 921	23 679	266 600	237 297
	2	52 945	35 908	14 979	252 862	24 701	277 563	242 683
	3	53 357	36 312	15 244	258 418	25 122	283 540	249 212
	4	54 477	36 560	15 182	262 484	25 631	288 115	258 262
2006	1	55 950	36 550	15 507	253 950	24 832	278 782	248 652
	2	57 736	36 993	15 504	263 907	26 000	289 907	258 507
	3	57 663	37 408	15 723	270 169	26 624	296 793	262 650
	4	59 053	37 638	15 708	278 412	27 472	305 884	274 240
2007	1	59 645	37 784	15 873	267 296	26 574	293 870	262 153
	2	61 413	38 388	15 926	276 926	27 415	304 341	268 534