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**CHANGES IN THE SOUTH AFRICAN EDUCATION SYSTEM: IN SEARCH FOR ECONOMIC GROWTH**

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**ABSTRACT**

Concurrent with South Africa's democratic elections in 1994 the government signed the World Trade Organisation's (WTO) Uruguay Round, which accelerated the integration of our economy into the global marketplace. The global labour market is characterised by constant change (to the benefit of skilled workers) and the progressive destruction of jobs (affecting especially semiskilled and unskilled workers).

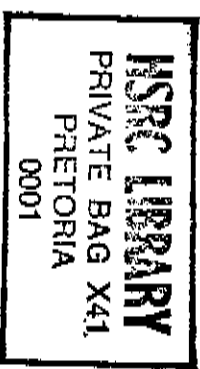
South Africa re-entered the world economy with several disadvantages of which an exceptionally high unemployment rate and a low-skilled labour force were the most challenging. Each year over the past decade increasing numbers of jobs have been destroyed in South Africa. There are virtually no jobs for the hundreds of thousands of (apparently) better qualified new entrants to the labour market, let alone the backlog of millions who have been unable to find a job or who cannot generate an income on their own initiative. The same shifts, observed in global economies, are occurring in South Africa.

The challenge facing South Africa in addressing the problem of job creation is aggravated by the fact that its labour force is predominantly low skilled, especially if comparisons are drawn with skills levels in other countries. Various innovative measures for enhancing the skills base in South Africa have been introduced since the first democratic elections in 1994. The new policies are designed to deal with the country's lack of international competitiveness and the low rates of investment in the development of human capital. Since 1994, several policies and strategies have been put in place with the aim of creating jobs in various sectors of the South African economy.

Because South Africa's education and training system (and in some instances the industrial relations system) has been modelled on those in industrialised countries, problems of co-ordination between the systems may well occur. An integrated approach to the implementation of the different innovative policy frameworks by the responsible public service departments is needed.

**CONTENTS**

**ABSTRACT** ..... 1  
**CONTENTS** ..... 11  
**LIST OF FIGURES** ..... 111  
**LIST OF TABLES** ..... 111  
**INTRODUCTION** ..... 1  
**EVOLUTION OF COMPETITIVE ECONOMIES** ..... 1  
**STATE OF THE GLOBAL LABOUR MARKET** ..... 4  
**LEARNING FROM THE SKILLS FORMATION EXPERIENCES OF COMPETITIVE NATIONS** ..... 5  
**THE SOUTH AFRICAN ECONOMY** ..... 7  
**AN OVERVIEW OF THE SOUTH AFRICAN LABOUR FORCE** ..... 9  
**THE COMPOUNDING PROBLEM OF THE LOW SKILLS BASE OF THE SOUTH AFRICAN LABOUR FORCE** ..... 11  
**CHANGES IN THE SOUTH AFRICAN EDUCATION SYSTEM** ..... 13  
**IN SEARCH FOR ECONOMIC GROWTH AND JOB CREATION** ..... 14  
**SYNTHESIS** ..... 15  
**MODEL FOR PRIORITISATION IN SKILLS FORMATION STRATEGIES**.. 16  
**PREPARING EDUCATION LEAVERS FOR THE WORLD OF WORK** ..... 19  
**PROBLEMS INFLUENCING THE QUALITY OF EDUCATION AND POSSIBLE SOLUTIONS** ..... 20  
**PREPARING THE UNEMPLOYED FOR SELF-RELIANCE OR (RE) ENTERING THE LABOUR MARKET**.. 22  
**ENHANCING THE SKILLS OF EMPLOYED WORKERS** ..... 24  
**SUMMARY** ..... 25  
**REFERENCES** ..... 26



**LIST OF FIGURES**

Figure 1: Sectoral GDP contribution (1990 and 1999) ..... 8  
 Figure 2: Proportional sectoral employment rates for 1980, 1990 and 1996..... 8  
 Figure 3: Total population, potential labour force and economically active population, 19969  
 Figure 4: Level of education of the unemployed, 1996 ..... 10  
 Figure 5: Adults with less than upper secondary education as a percentage of the adult population, 1995 figures..... 11  
 Figure 6: Model for prioritisation in skills formation ..... 17  
 Figure 7: Preparing learners for the world of work..... 20  
 Figure 8: Preparing the unemployed for (re-) employment or self-reliance..... 22  
 Figure 9: Enhancing the skill levels of the currently employed..... 24

**LIST OF TABLES**

Table 1: Factors influencing the demand for workers ..... 18  
 Table 2: Factors influencing the supply of workers ..... 19

**INTRODUCTION**

It is generally accepted that the quality of a country's labour force is a crucial factor in successful competition in the global economy. South Africa's richness in human resources unfortunately does not in itself make us a winning nation. Because of the low educational attainment of our labour force, we have to compete in the global economy at a disadvantage. The global labour market is characterised by constant change (thereby creating skilled workers) and the progressive destruction of jobs (affecting in particular semiskilled and unskilled workers).

The purpose of this study is to investigate the structural changes taking place in the workplace, the effects thereof on the demand for human resources, and how education and training in South Africa can respond to these changes to the benefit of individuals, organisations and the country as a whole.

The first section cast light on the development of economies, how such development influences the demand for worker skills and how different nations have attempted to meet the requirements of their productive systems through appropriate education and training. South Africa's economy, labour problems and strategies to enhance human capital and create jobs are then examined. Consistent with trends observed in the advanced economies of the world, the pattern of activity in the South African economy has shifted from the primary and secondary sectors to the tertiary and service sectors, shedding jobs requiring lower levels of skills and creating jobs for highly qualified workers.

In the third section it is shown how many innovative measures to enhance skills levels and job creation have been introduced since 1994 by the democratically elected government. These measures were evidently informed by the experience of other countries. The formidable task of implementing these measures or strategies successfully is exacerbated by the fact that the different provinces in South Africa are in different stages of economic development and have different educational outputs, leading to differences in the skills levels of their respective labour forces.

Factors influencing the demand for labour and factors that may impact on the success of education and training interventions were considered in the construction of a model to prioritise skills formation strategies. This model, presented in the fourth section, should be a versatile planning tool for identifying target groups, and for prioritising and implementing skills development strategies in the context of local socio-economic structures, as well as in the context of the national socio-economic structure and the global economy.

**EVOLUTION OF COMPETITIVE ECONOMIES**

Two interconnected forces, namely technical change and the integration of the world's economies into one global economy, have led to the intensification of international competition (Cappelli *et al.*, 1997:26-29; Neef, 1999:2). This has brought about a permanent change in employment relations and an ever-increasing demand for high-level skills, rendering education and training of paramount importance (Ashton & Green, 1996:1; Bhorat & Hodge, 1999:359; Murray, 1999:4).

The number of formal job opportunities throughout the world is decreasing rapidly as economies shift from labour-intensive production to capital-intensive processes (Davis *et*

at, 1997<sup>1</sup>). Parallel to the movement away from primary and secondary industries to tertiary and service sectors is a movement within individual sectors away from unskilled and semiskilled occupations to those that require a higher level of skill (Neef, 1999:7; Prajs, 1995:4). The Longman Dictionary of Business English (Adam, 1982:359) defines the terms 'primary', 'secondary' and 'tertiary' as follows: primary production includes those activities that provide man with the gifts of nature, such as all forms of agriculture, forestry, fruit growing, fishing and hunting; and mining; secondary production is the manufacturing of finished products from raw materials, and the building of houses, public buildings, factories, roads, ports, etc; tertiary production is the performance of services such as banking, insurance, transport and trade (commercial services), and the work done by people in the professions and in the service industries and trades.

In order to understand how changes in the world economy have a bearing on skills trends, we need to look at how economies have developed in order to become competitive. Porter (1990:546) provides a useful matrix to explain how shifts in the economy of a country occur and how countries differ in terms of their stage of economic development. According to Porter (1990:546), countries can be differentiated on the basis of the stage of competitive development (in international terms) achieved by their industries. He identifies four stages of such development: factor-driven, investment-driven, innovation-driven and wealth-driven.

In a factor-driven economy, industries are reliant on basic factors of production such as mineral resources, favourable growing conditions for crops, and an abundant and inexpensive unskilled labour pool (Porter, 1990:547). Factor-driven economies depend heavily on primary sector production (agriculture and mining) and are therefore sensitive to world economic cycles and exchange rates. The majority of employees in a factor-driven economy are concentrated in production, with a few workers dedicated to creating new products (Neef, 1999:5; Porter, 1990:548). Workers with no job skills or work experience can enter the system, make a contribution, and gradually learn enough through on-the-job training to progress to the next level of the job ladder. Hard-working workers can expect to move into supervisory jobs and then into higher management (Cappelli et al., 1997:19).

In the investment-driven phase, investment money (capital) is needed to construct modern, and often large-scale, plants/facilities equipped with the best technology available on global markets (Porter, 1990:548). Competitive advantage in the investment-driven stage is based on the willingness and ability of a country and its companies/businesses to invest aggressively. Investment-driven economies are characterised by a secondary production structure (manufacturing, electricity, gas, water supply and construction) where the use of technology is apparent.

Prajs (1995:3-4) distinguishes between two phases in technological progress (mechanisation and automation) and explains how these phases affect the demand for skills and the employment market. During the first phase of mechanisation, skilled craftsmen (e.g. using basic hand tools to saw and file pieces of metal to size) were replaced by machines operated by unskilled operators (e.g. pushing the pedal of a mechanised power-press). The skilled craftsmen could generally use their superior knowledge and experience to meet the increased demand for tool-setters, supervisors and operators.

The effects of automation become evident during the innovation-driven stage of competitive development. According to Porter (1990:554), in the innovation-driven stage, businesses not only adopt and improve technology and methods from other countries but also often create such technology and methods themselves. The predominant feature of 'automation' – as a result of improved technology – is that the work of numerous unskilled machine operators is done by automatic devices (Prajs, 1995:4).

A rise in the capital intensity of production lowers the demand for unskilled workers and increases the demand for more skilled workers who are required to operate and maintain the new capital equipment (Bhorat & Hodge, 1999:349; Neef, 1999:34; Prajs, 1995:4). Thus, in effect, a reversal of the effect of mechanisation. Displaced unskilled operators do not have any natural alternative employment since they are not qualified to meet the increased demand for technicians, supervisors and maintenance engineers who can service the automated machinery (Prajs, 1995:4). Unskilled workers entering the labour market may find it increasingly difficult to make the transition to good jobs as many employers can no longer provide work-based learning for new hires (Cappelli et al., 1997:13).

During the innovation-driven phase of competitive development, consumer demand becomes more sophisticated because of rising personal incomes, higher levels of education and the increasing desire for convenience (Porter, 1990:553). The tertiary production sectors of the economy satisfy these needs (e.g. trade and tourism, finance and insurance, transport and communication, and government, personal and social services). Businesses in an innovation-driven economy compete internationally in more differentiated industry segments and rely on high skills levels and advanced technology to decrease costs and increase production (Porter, 1990:554).

This market and performance orientation further reduces unskilled, entry-level jobs and changes the hierarchical composition of the workforce towards self-supervising employee teams. The shift in economic activity towards trade and service industries can also be ascribed to the increasing use of contingent employees (contract, part-time and temporary workers). Under these new arrangements, employees share much more in the risks of doing business, take on more of the responsibility for managing their own careers, and find that their relationship with management is governed to a greater extent by market forces (Cappelli et al., 1997:4; Doughwaite, 1996:27).

In the wealth-driven stage, businesses begin to lose their competitive advantage. When this happens, many domestic industries downsize and resort to competing on price. Sluggish wage and job growth and rising unemployment further blunt incentives to improve productivity. A common symptom of the wealth-driven stage is widespread mergers and acquisitions. The decline can be protracted until something jars the economy into action again (Porter, 1990:556-558).

Let us now briefly examine the global labour market, which is characterised by large-scale job destruction.

<sup>1</sup> The authors have created time series for job creation, job destruction and total job reallocation in US manufacturing industries from 1972 through to 1998.

## STATE OF THE GLOBAL LABOUR MARKET

Unemployment is becoming a global problem. According to the International Labour Organisation's 1996 Yearbook of Labour Statistics (ILO, 1996:397-405), of the 30 countries with an unemployment definition similar to that of South Africa, 21.7% at the time had an employment rate higher than 10%, with Algeria the highest at 24%. In Europe, countries such as Spain, Finland, Norway, Sweden and Germany, all experienced increases in unemployment rates of between three and 13 percentage points between 1986 and 1995. Furthermore, it is estimated that up to 30% of the total world labour force (820 million people) is currently unemployed or underemployed (Fourie, 1999:360). An estimated 120 million people worldwide are officially registered as unemployed.

The number of job opportunities in the formal sector of the global economy is indeed decreasing. An analysis of gross job-flow statistics in US manufacturing industries from 1972 to 1988 reveals that for every three jobs destroyed in a recession only two jobs are reinstated or created during the following expansion in the economy (Davis et al., 1997:92). In the case of more recent recessions the prospects are even gloomier. For example, only 15% of those laid off in the 1992-1993 recession in the US were reinstated (Cappelli et al., 1997:175). This means that economic recovery may reduce unemployment somewhat, but it will not be enough to restore the number of jobs to their level before the downturn (Douthwaite, 1996:14; Shackleton et al., 1995:197). The increasing level of unemployment is attributable to changes in the way the global economy works.

The global economy left Porter's factor-driven stage behind some time ago and is currently in the innovation-driven stage, increasingly moving towards the wealth-driven stage. The progressive destruction of jobs worldwide is attributed to several related developments, such as new technologies, smarter management techniques, the opening up of national boundaries and mergers (Aronowitz & Dfazio 1994:3-4; Sunter, 1999:10). The relentless application of technology has destroyed jobs and reduced workers' living standards (Cappelli et al., 1997:183; Douthwaite, 1996:25). Informatics is displacing not only manual, but also technical and scientific labour. In their book, *The Global Trap*, Martin and Schumann (1997:103-110) explore the spread of globalisation and the likely consequences for jobs and democracy. They foresee a technological future in which only a fifth of the world's current workforce will be needed, increasing the global unemployment rate to 80%. They confirm the morbid picture painted by Barnett (1993:52) that a worldwide job crisis is threatening not only global economic growth but also the capitalist system.

Employers have responded to increasing global competition and rapidly changing technologies and markets by pursuing a range of flexible production and employment practices. Steady, full-time jobs with good benefits are becoming rare due to automation, the increasing use of subcontractors, suppliers and temporary workers, and the reorganisation of the workplace in order to increase productivity (Barnet, 1993:48; Badenhorst, 2000:29; Berner, 2000:1; Douthwaite, 1996:41; Neef, 1999:102-105).

The changing world of work – induced by economic development – demands an increasingly flexible and highly skilled labour force as customary jobs, activities and occupations are disappearing and being replaced by new ones (Neef, 1999:16; Wells,

1999:23). As a result, in most innovation-driven economies there is mounting tension between the requirements of the job structure and the structure of the qualifications of the employed population. These disparities manifest themselves in the excessive supply of unskilled labour or of workers with obsolete qualifications (resulting in high unemployment rates), as well as in labour shortages in new skilled jobs (Bosstaele & Stockmann, 1999:3). Rapidly changing technology and market conditions have proved very harmful for groups such as unskilled workers, older workers, the young, women, public employees and those living in rural areas (Douthwaite, 1996:13-29). As the excess supply of unskilled workers has grown, their wages have continued to decline. People losing their jobs due to changes in employment practices find that they lack the required skills to move to the new jobs now available in the changing economy (Alumane & Levy, 1996:3). Furthermore, what a high school graduate has to offer most employers in the global economy is no longer in demand (Cappelli et al., 1997:165).

The basic economic and political model of a country moulds the fundamental relationship between the education system and the occupational system in that country. The skills of the workforce are accordingly an increasing determinant of a country's economic success in the competitive global economy (Ashton & Green, 1996:95; Griffiths & Jones, 1980:8; Murry, 1993:4; Van Dyk et al., 1997:9). When people acquire skills they not only become more productive in terms of producing more output for a given amount of time and effort, but they commonly also make themselves more adaptable to changes in the workplace (Badenhorst, 2000:29; Booth & Snower, 1996:1; Wells, 1999:24). Education and training should therefore be appropriate and responsive to the requirements of the labour market as well as to individual desires and social needs. The big question is how do competitive nations link education and training to changes in their productive systems in order to avoid unemployment.

### LEARNING FROM THE SKILLS FORMATION EXPERIENCES OF COMPETITIVE NATIONS

Governments seeking to influence the behaviour of employers have tried a number of 'solutions' such as training levy schemes, apprenticeship systems and private or local industry/enterprise councils. The most common has been the imposition of a levy or tax on employers which can be used to reward employers who provide training and to penalise those who are 'free riders', that is living off the investment in training made by the 'good' employers (Ashton & Green, 1996:179). Countries that have attempted or are using a training levy system include the following:

- The UK introduced a levy on employers in the 1960s, which was subsequently abolished (Edwards, 1997:190).
- In France the *taxe d'apprentissage* was initiated in 1925 and has been substantially modified since then. Increasingly the tax has been used to support forms of entry-level training other than apprenticeships. In the field of continuing education and training (*formation professionnelle continue - FPC*) the legislation of 1971 and 1984 put in place a system whereby all enterprises employing ten people or more had to allocate a specified minimum proportion of their payrolls to expenditure on FPC (Shackleton et al., 1995:146).
- In Australia a training levy, based partly on the French experience, was introduced in 1990 in the form of the Training Guarantee Scheme aimed at increasing the level of employer expenditure on training. Unlike the French scheme – but similar to the

<sup>2</sup> According to Stats SA (2000:52), the overall unemployment rate (expanded definition) in the country at the time of Census '96 was 33.9%.

scheme in the UK – it encountered strong opposition from employer organisations and was suspended in 1994 (Ashton and Green, 1996:179).

Associated with the attempts to enhance employer-led training, through training levies, are developments in the apprenticeship system, the most successful of which is the German apprenticeship scheme. Similar well-developed schemes have been established in Austria and Switzerland (Ashton & Green, 1996:180). A less well-developed scheme (the Modern Apprenticeship Scheme) has recently been introduced in the UK. Several entry-level skills enhancement schemes such as the Commonwealth Rebate for Apprentice Training (CRAT), the Australian Traineeship System and the Group Training Scheme in Australia make provision for apprentice/traineeship training in Australia (Marinis & Tustin, 1998:35).

Other policies to enhance employer-led training include the attempt by the US government to encourage employers to take the initiative in improving training provision through the introduction of Private Industry Councils (PICs). This initiative was later duplicated by the UK government in the form of Training Enterprise Councils (TECs) in England and Wales and Local Enterprise Companies (LECs) in Scotland. The purpose of these reforms and institutions was to place control of the delivery of those government resources devoted to training, in the hands of employers who would be more sensitive to the demands of the market (Ashton & Green, 1996:180).

Within the same framework, another approach has been for the state to leave the training of younger and older adults almost entirely to employers, but to invest heavily in education so that those entering the workforce have a good grounding in important subjects. Employers can then build on this in enhancing the skills base of their labour force. According to Ashton and Green (1996:180), this approach has been tried in Canada and Ireland.

The ability of the so-called newly industrialised economies (NIES), of the Asia Pacific Rim, to link education and training to continuous change in the development of the productive system, provides a model that offers institutional flexibility and the possibility of catching up fast with the older industrial nations. Ashton and Green (1996:188) believe that such a model may be appropriate for countries like South Africa with a large unskilled labour force, with low levels of literacy, and with a political imperative to create a more equitable distribution of income.

International experiences with skills formation reveal that there is nothing automatic about the relationship between educational investments, human-capital formation and economic growth. Educational investments can be effective only under specific structural conditions. These include:

- an education system of demonstrably adequate efficiency (Blossfeld & Stockmann, 1999:18) that is capable of inculcating in the large majority of school children at least intermediate-level academic and vocational skills (Ashton and Green, 1996:100)
- comprehensive means of access to the education system (Blossfeld & Stockmann, 1999:18)
- the existence of a demand among learners for certain occupations and courses of study – and not their avoidance because they lack prestige (Blossfeld & Stockmann, 1999:18)
- consensus among the key agents involved in the skills formation process (Ashton & Green, 1996:185)
- policies that influence the demand for skills (Ashton and Green, 1996:185)

the existence of labour opportunities in various economic sectors (Blossfeld & Stockmann, 1999:18)

the general recognition of educational credits as entrance qualifications for given occupations (Blossfeld & Stockmann, 1999:18), and a means of maintaining incentives for individuals to participate actively in their own and others' skills formation (Ashton & Green, 1996:185)

a system of social or legal regulatory practices which compels individual employers to provide good quality workplace training, and an institutional means to allow continuing work-based skill formation to be complemented by periodic spells of off-the-job training (Ashton & Green, 1996:102)

a flexible labour market (World Bank, 1993:25)

The structural conditions listed above and the strategies to enhance employer-led training can become objectives which – according to Ashton and Green (1996:185) – should form the basis of an evaluation of the skills formation system in any country. In addition to the checklist of requirements, however, they emphasise the importance of seeing the development of education and training institutions in a historical context. With this perspective one can better assess the possibilities for institutional change.

Having discussed the nature of the global economy, its interaction with workers and how skills formation takes place, the stage is set for us to look more closely at the South African economy, its human capital, and strategies to increase skills levels and create jobs.

## THE SOUTH AFRICAN ECONOMY

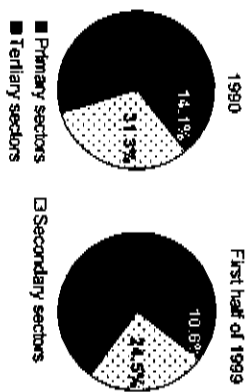
Concurrent with South Africa's democratic elections in 1994 the government signed the World Trade Organisation's (WTO) Uruguay Round, which accelerated the integration of our economy into the global marketplace (Naudé, 1999:18). From the first part of this presentation, it emerged that the global labour market is characterised by constant change (to the benefit of skilled workers) and the progressive destruction of jobs (affecting especially semiskilled and unskilled workers).

South Africa re-entered the world economy with several disadvantages of which an exceptionally high unemployment rate and a low-skilled labour force were the most challenging. Each year over the past decade increasing numbers of jobs have been destroyed in South Africa (Barker, 1999:83; Temkin, 2001:4). There are virtually no jobs for the hundreds of thousands of (apparently) better qualified new entrants to the labour market, let alone the backlog of millions who have been unable to find a job or who cannot generate an income on their own initiative. The same shifts, observed in global economies, are occurring in South Africa.

Consistent with trends observed in the advanced economies of the world, the pattern of activity in the South African economy has changed – as part of developmental processes in the economy – with a shift from primary and secondary sectors to tertiary or service sectors. For example, while the contribution of agriculture to South Africa's gross domestic product (GDP) dropped from 22.4% to 9.5% (between 1920 to 1989), that of the manufacturing sector rose from 7.4% to 22.7% in the same period (Mallerbe, 1975:178). According to the South African Reserve Bank (2000), the contribution of the primary sector (agriculture and mining) continued to drop over the last decade, while that of the secondary sector (manufacturing, construction, electricity) increased. The growing

significance of the tertiary sector (trade, finance, community and personal services) in the South African economy over the past decade is depicted in Figure 1.

Figure 1: Sectoral GDP contribution (1990 and 1999)

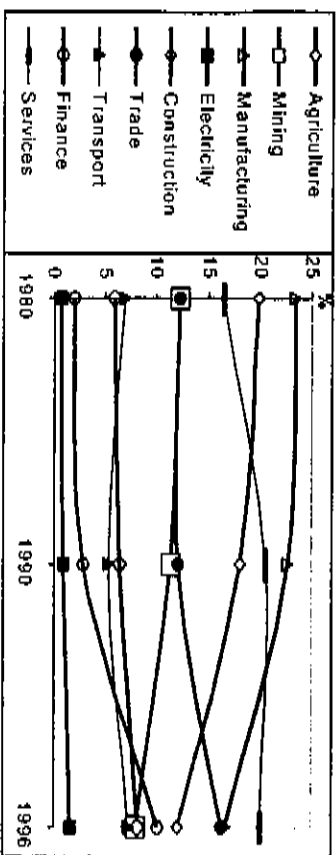


The relative share of value added (measured in terms of gross domestic product (GDP) by the tertiary sectors rose from 54.6% of total value added in 1990 to 64.9% in the first half of 1999. Over the same period, the relative share of the primary sectors declined from 14.1% to 10.6% and that of the secondary sectors from 31.3% to 24.5%.

Source: South African Reserve Bank (2000)

These shifts in economic output of the different sectors gave rise to shifts in the employment structure. Figure 2 shows declining employment in the primary (agricultural and mining) and secondary (manufacturing) sectors of the South African economy and substantial increases in employment in the tertiary sector (transport, trade, finance and services) over the past two decades.

Figure 2: Proportional sectoral employment rates for 1980, 1990 and 1996



Source: 1980 and 1990 figures: CSS (1995), 1996 figures: Stats SA (1996)

It should be noted that – although there were changes in sectoral GDP contribution and related shifts in the employment share of the different sectors – economic growth occurred in the primary, secondary and tertiary sectors of the economy. According to figures released by Stats SA (2000a), the gross domestic product (GDP at market prices) increased by 15% – from R515 billion in 1993 to R596 billion in 1999. Furthermore, although jobs were created in the tertiary or services sector, more jobs were shed in the primary and secondary sectors, confirming the global trend of jobless economic growth and a shrinking pool of permanent jobs.

According to employment growth forecasts this trend will continue (Trenkin, 2001:4; Whitelord et al., 1999:10-18). Negative growth rates are envisaged for the mining, the manufacturing and the electricity sectors (ascribed to persistent pressure on domestic producers to be competitive in an increasingly globalised market marked by accelerating capital intensity), and in the services sectors (ascribed to an expected decrease in employment by central, provincial and local government). Rising employment is forecast for the trade, finance and construction sectors of the economy.

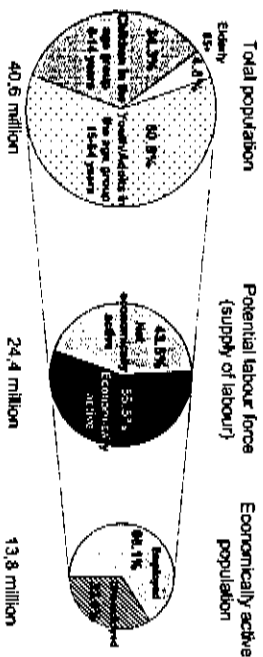
A major factor contributing to higher capital intensity is the shortage of appropriately skilled workers (i.e. workers equipped for the employment opportunities offered by a modern economy) (Martins & Tustin, 1999:23; Porter, 1990:257). As will be discussed in the following section, this is an area of real concern in South Africa.

Apart from shifts in the global economic arena – in which South Africa has to compete against advanced players – South Africa's high rate of population growth means the labour force outstrips the normal labour absorption capacity of the market. According to Fourie (1999:366), demographic factors such as changes in the economically active population (e.g. changes in the age structure, participation rates, and the gender and racial composition) contribute to the absorption problem.

### AN OVERVIEW OF THE SOUTH AFRICAN LABOUR FORCE

The South African labour force is characterised by an abundance of workers who are relatively young and poorly skilled. The potential labour force (persons aged 15-65 years) for 1996 was calculated at 24.4 million people, of whom 43.5% were not economically active (Figure 3). The economically active population consisted of 13.8 million people of whom 66.1% were employed, while 33.9% could not find jobs.

Figure 3: Total population, potential labour force and economically active population, 1996



Source: Stats SA (1996)

As in a typical developing country, there is an oversupply of unskilled workers, and a shortage of skilled workers in South Africa. According to Statistics South Africa's findings in the 1996 population census, almost 20% of South Africans in the age group 20 years and older had received no education. Only 16.4% of the population who were 20 years and older in 1996 had obtained Grade 12, while only 8.2% had a postschool qualification. One of the consequences of the discriminatory practices of the past is the unequal

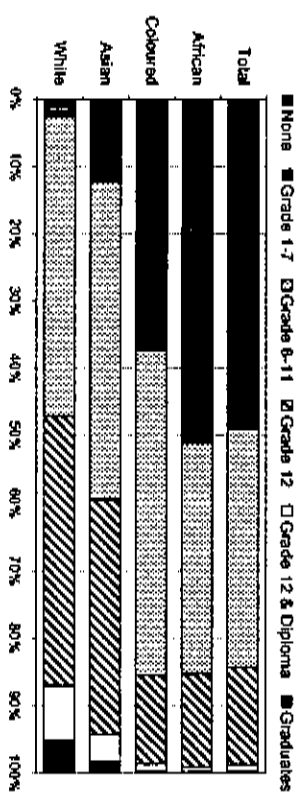
distribution of skills among the different population groups in South Africa. In 1996, fewer African (12%) and coloured (12%) South Africans – aged 20 years and older – obtained Grade 12 or a postschool qualification than Asian (30%) and white (41%) South Africans (Stats SA, 2000b:125). The pattern of education is reflected in the occupational distribution of the labour force. In 1996, less than a quarter of all the workers in South Africa were employed in highly skilled occupations such as legislators, managers, professionals and technicians.

In line with global trends there is a movement away from employment in primary and secondary industries to employment in tertiary or service sectors. The upshot is fewer employment opportunities for unskilled workers. Most unemployed South Africans in 1996 who had been employed previously, had been employed as elementary workers, craft and related trade workers, and service workers. With no formal employment growth to replace job losses and accommodate new entrants to the labour market, unemployment is becoming a critical problem, placing South Africa among the countries with the highest unemployment rates in the world.

An analysis of the unemployment situation reveals that rural populations, African and coloured workers, women, the youth and those with lower levels of skills are the ones most affected by the situation. The unemployment rate for 1996 was calculated as 33,9 % of the economically active population (4,7 million people), if discouraged job seekers are included (expanded unemployment rate) (Stats SA, 2000b:52). Discouraged job seekers are those people who had not recently tried to find work because they had given up hope of finding it, could not find jobs where they lived, lacked money for transport to look for work, or lacked schooling and training (Casillo, 1998:35).

Unemployment in South Africa is a reflection of the low educational profile of the total population. The majority (84,3%) of the unemployed in 1996 had qualifications lower than matriculation. Almost half (49,0%) had no – or at most a primary – education (Figure 4). A further 35,3% had attended school only up to Grade 8–11, and 14,4% had obtained a Grade 12 qualification. Only 1,2% of all the unemployed had a postschool qualification. The fact that very few people with tertiary education were unemployed, confirms the increasing demand for skilled labour and the harmful effects of rapidly changing technology and market conditions on especially unskilled labour (Stats SA, 1999).

Figure 4: Level of education of the unemployed, 1996



Source: Calculated from Census '96 dataset (Stats SA, 1999).

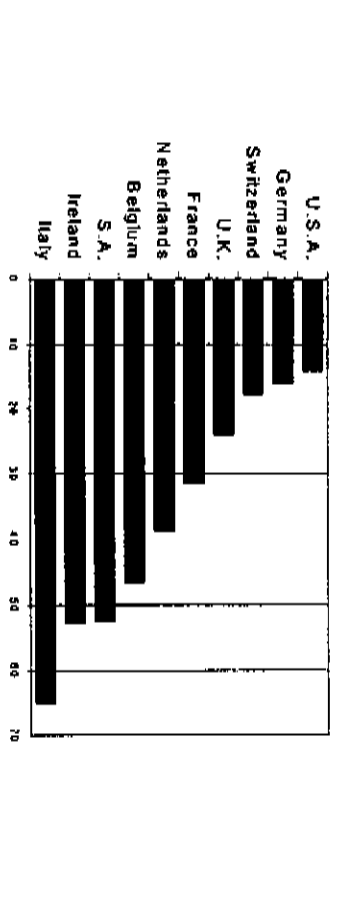
Almost half (46,7%) of all the people who were unemployed at the time of the population census in 1996 had never worked before (Stats SA, 1999). The African population group was the worst affected as 49,1% had had no previous employment, while 25,1% of the coloured unemployed, 23,2% of the Asian and 15,0% of the white unemployed had had no previous employment. Only a third (32,8%) of the unemployed had been previously employed.

From an economic growth and development perspective, it is clearly not just the size of the labour force but rather its quality that counts. The level of education of a population indicates the quality of the labour force and that population's ability to undertake training successfully and acquire useful skills (Van Dyk et al., 1997:15). A sound general education is an essential foundation for all subsequent training. Something the majority of the South African labour force lacks.

**THE COMPOUNDING PROBLEM OF THE LOW SKILLS BASE OF THE SOUTH AFRICAN LABOUR FORCE**

The mismatches between South Africa's human resources and the skills requirements of available jobs are evident if comparisons are made with other countries (Figure 5). Considering the fact that in 1995 52,6% of South Africa's adult population had less than upper secondary education (less than Grade 10), we entered the global economy at a disadvantage to highly developed countries such as the US (14,2%), Germany (16,3%), the UK (24,1%), France (31,6%) and Belgium (46,5%). We are, however, on par with Ireland (52,8%) and better off than and Italy (65,1%).

Figure 5: Adults with less than upper secondary education as a percentage of the adult population, 1995 figures



Source: OECD countries – DELFA, 1996<sup>1</sup>; South Africa: CSS, 1996<sup>2</sup>.  
<sup>1</sup>Adults with less than upper secondary education as a percentage of the population between 25 and 64 years of age, 1995 figures (DELFA, 1996:56).  
<sup>2</sup>Level of education amongst those aged 20 years and older (OHS, 1995 figures: CSS, 1996:75).

According to Prais (1995:75), the advantage in workforce qualifications in an advanced industrial country such as Germany ties in attainments at the level of intermediate



vocational qualifications. In international comparisons of workforce productivity, Germany fared considerably better than for, instance, Britain, France and the Netherlands (Prais, 1995:20-21). Prais (1995:18) ascribes the lower productivity of Britain's workforce to the relatively low proportion (27%) of its workforce that has received systematically organised vocational training and attained formally examined vocational qualifications (as opposed to 64% in Germany).

Several studies reveal a relationship between low education and qualifications levels and low labour productivity. According to Edwards (1997:189), the low level of skills in Britain can be traced to weaknesses in general education and in vocational training, leading to low labour productivity. It is argued that vocational training will do little to alleviate the critical skills shortage in Britain as the basic problem is that the system of general education is largely irrelevant to the needs of industry (Blossfeld & Stockmann, 1998:14).

The German economic prosperity is attributed to a sound manpower base (Dekker, 1996:67). German workers are better trained in specialised fields than workers in most countries, have a better theoretical base which to develop and enhance their skills, and high wages supported by high levels of productivity (Ashton & Green, 1996:95; Porter, 1996:369). As in Britain, the majority (65,9%) of South African workers have not completed secondary education, while in Germany 25% of the workforce is perceived as having low educational levels, even though the majority have taken the *Berufsschule*<sup>3</sup> final examination, which is at least equivalent to matriculation.

The skills profile of our labour force clearly is poor and uncompetitive in the global economy. There are too few professional and skilled people while a large section of our workforce lacks basic skills, which restricts their employability to only the most menial tasks. This can largely be attributed to the history of segregation in the provision of formal education. Separate departments of education, separate schools for the different population groups and differentiated expenditure remained central to the South African education system until 1990.

The basis for skills formation in ordinary schools was – and still is – poor, resulting in huge disparities in the skills levels of the different population groups in South Africa. It is especially in subjects such as mathematics and science, and in the field of vocational education and training, that the South African system of education has fallen behind.

Despite considerable past and likely future improvements in high school and university enrolment ratios, some backlogs in the educational levels of African and coloured persons, relative to whites and Asians – especially at university level – are likely to remain. Due to continuing low achievement in mathematics and science, and low vocational education and training outputs, there are skills shortages in the fields of the natural sciences, engineering, the built environment, health, law, and economic and management sciences, while there is an oversupply of people with skills in the nursing, administration and educational fields.

These factors and the extent of the malfunctioning of the South African labour market are the major reasons for setting objectives aimed at improving the quality and relevance of learning.

## CHANGES IN THE SOUTH AFRICAN EDUCATION SYSTEM

Various innovative measures for enhancing the skills base of the country have been introduced since 1994 (e.g. the South African Qualifications Authority (SAQA) Act (58/1995), the Skills Development Bill (1296/1997), the Further Education and Training Act (98/1998), greenwhite papers and strategies – precursors to these bills [e.g. the White Paper for the Transformation of Higher Education (Department of Education, 1997a), the 'Report of the National Committee on Further Education (National Committee on Further Education, 1997), Curriculum 2005: Lifelong Learning for the 21st Century (Department of Education, 1997b), the Green Paper: skills development strategy for economic and employment growth in South Africa (Department of Labour, 1997), as well as the Green Paper on National Youth Service (National Youth Commission, 1998)]. Some of these innovative measures can be summarised as follows

- At the heart of these measures is the national qualifications framework (NQF) which will integrate education and training into one system and facilitate movement between different types of educational institutions (South Africa, 1995). The most successful economies of the twenty-first century will be found in countries that have transformed themselves into learning societies (Ashton & Green, 1996:186; Donn, 1998:70). The main purpose of the NQF is to close the gap between education and training through the provision of opportunities to learn regardless of age, circumstances and level of education and training, thus allowing for lifelong learning. The concept of lifelong learning for all and a commitment to investment in the 'employability' of present and future workers is inevitable in such economies. This corroborates the World Bank's designation of the accumulation of human capital 'as one of the most powerful engines of development' (World Bank, 1993:5).

Countries that were most successful in the past in fighting poverty were those that invested in the human capital of the poor and promoted structures of growth linked to the efficient utilisation of labour (Blossfeld & Stockmann, 1998:18). Singapore and Japan have been successful in their implementation of a system of continuing on-the-job training (Ashton & Green, 1996:159; World Bank, 1993:25). Apart from South Africa, various countries (such as New Zealand and Scotland) have introduced qualifications frameworks through which lifelong learning can be accredited and articulated, through which skills and competencies can be learnt and updated, and through which social justice and equity can prosper (Donn, 1998:74-81).

- A new outcomes-based approach to education and training was phased into general and further education and training from 1998. Outcomes-based education (OBE) is intended to be a dramatic shift from apartheid education, with more emphasis given to outcomes, which are specifiable in terms of skills, knowledge and values, as opposed to rote memorisation of content. The most immediate origins of OBE in South Africa can be traced to competency debates in Australia and New Zealand. Although it is envisaged that the implementation of OBE will supply South Africa with a skilled and flexible workforce, critics warn that the country will not overcome all its deeply rooted social and educational problems, simply by introducing a new curriculum. The successful implementation of OBE will depend on successful teacher training and the availability of appropriate teaching and learning materials.

- Through the implementation of a multi-year plan for adult basic education and training (ABET) it is aimed to reduce illiteracy among adults (Department of Education, 1997c). Like the programmes launched by the Singapore government, ABET will

<sup>3</sup> Part-time secondary school for basic vocational education. Attendance is compulsory for all learners under the age of 18 who do not attend any other school (Dekker, 1996:99).



provide a progression route for adults to continue their education to secondary school level and furnish a basis for the enhancement of their work-based skills.

- **The Further Education and Training Act, 1998, and the Education White Paper 4, set out an agenda intended to lead to a more cost-effective and efficient FET system (South Africa, 1998c).** The purpose of FET is to respond to the human resource needs of the country for personal, social, civic and economic development.

- In order to enhance the skill levels of the workforce and to promote learnerships (apprenticeships), a training levy was imposed on employers from 2000. The National Skills Bill compels organisations to draw up workplace skills plans and to submit them to a relevant sector education and training authority (SETA). A SETA has to devise a sector skills plan and implement it by establishing learnerships; by approving workplace skills plans; by allocating grants to employers, education and training providers, and workers; and by monitoring education and training in its particular sector.

Education and training institutions – especially FET providers – in turn have to establish close relationships with SETAs and business enterprises in order to identify training needs, to develop learning materials and to conclude learnership agreements. This resembles the newly established network of National Training Organisations (NTOs) in the UK (See Powell, 1999:43-46). Like NTOs, FET providers play a vital role in identifying national labour market trends in different industries and in addressing skills shortages.

Attempts to introduce training levy schemes in the UK and Australia failed owing to resistance from employers and the cumbersome bureaucracy associated with the implementation of the schemes. If organisations fail to provide actual information regarding skills needs and training plans, sector skills plans will not be a reliable source for human capital formation strategies in South Africa. The capacity of smaller organisations to develop workplace skills plans needs to be built to avoid a Singaporean situation where larger companies tend to take advantage of the training subsidies the Skills Development Fund provides (Ashton & Green, 1996).

The above-mentioned measures to improve the skills base of the country will not on their own ensure that every person entering the labour market will be employed. As indicated in before, policies to influence the demand for skills should be in place, to ensure the existence of labour opportunities in the various economic sectors. Several strategies for stimulating economic growth and job creation were introduced after the democratic elections in 1994.

### **IN SEARCH FOR ECONOMIC GROWTH AND JOB CREATION**

The past six years of democratic rule in South Africa have been characterised by policy making and legislative reform aimed at meeting constitutional imperatives in all spheres of life, as well as facilitating the reconstruction and development of the country. In an effort to address structural imbalances, the South African government embarked upon a macro-economic strategy for growth, employment and redistribution (GEAR) (Department of Finance, 1996). In its integrated scenario, which sketches a higher economic growth path, GEAR projected the GDP to rise, resulting in an increase in new formal employment opportunities. Flexibility and equity in the labour market, skills development, reducing imports, improving exports, and the support and development of small, medium and micro-enterprises are some of the major aims of GEAR.

The underlying assumption of GEAR was that high levels of growth would enable poverty to be addressed through redistributive measures, and that as unemployment declined, poverty would gradually disappear. Economic growth would also generate additional public resources, which could be used to provide public services and poverty relief. Reality, however, does not appear to have kept pace with GEAR projections and, instead of a "win-win" situation, it is more a case of "win-some-lose-some".

Although the economy had grown by nearly 10% from 1994 to 1996 (Donaldson, 1997:459), jobs were either destroyed or no employment creation took place (Schoonbee, 1998: Faton & Lucas, 1998:7). Despite GDP growth being lower than anticipated, improved financial management and tax collection combined with careful management of expenditure resulted in a sound fiscal environment (Cronin, 1998:514; Ryan, 1998:38). The weak economic growth was detrimental to all GEAR's projections (Roberts, 1998:16). Critics felt that GEAR had failed, not delivering on its promises, either in terms of growth or job creation (Heintz & Jardine, 1998:20; Schoonbee, 1998:21). According to Cronin (1998:54), GEAR had ended up as merely an attempt to send the 'right signals' to foreign investors, confirming what GEAR's critics had always suspected.

GEAR, however, should not bear all the blame. GEAR advocates point out that as South Africa becomes integrated with the world economy, our economy will be affected by unpredictable external factors (Cronin, 1998:54; Milner, 1998:62). Examples are the direct (or indirect) effects of the East Asian economic turmoil in 1998, the depreciation of the Brazilian currency and Brazil's bad debt in early 1999, and Britain's decision to sell some of its gold reserves, resulting in a plummeting gold price (Ryan, 1998:39). Globalisation is therefore also a culprit.

Since its inception in 1996 it has become clear that the goals set in GEAR were unrealistic, and that job creation through economic growth alone would not curb the growing rate of unemployment in South Africa. The drive for job creation culminated in the Presidential Jobs Summit in October 1998 (Department of Labour, 1998). The broad objectives of the Presidential Jobs Summit are those of GEAR, which in turn echoes the RDP's objectives. Apparently a more refined and focused initiative, the Presidential Jobs Summit is more specific in terms of targets set, the sectors of the economy and geographical areas identified, and the target groups projected to benefit from the job creation interventions.

### **SYNTHESIS**

Poor distribution of human capital contributes to unemployment, social inequality and the further alienation of those excluded from full participation in the labour market. Inequalities in South Africa will remain and even widen if a concerted effort is not made to integrate and implement the different strategies for skills formation and job creation.

In reviewing global labour market trends, it is evident that several factors related to economic development influence the demand for workers and their skills. Although many countries are experiencing economic growth and are becoming increasingly competitive, more and more workers are being retrenched, while those in employment are experiencing declining wages and job security. The changing world of work demands an increasingly flexible and skilled labour force as customer jobs, activities, and occupations are disappearing and being replaced by new ones. People who lose their jobs due to changes in employment practices – and those (re)entering the labour market – find that they do not have the required skills to move to the new jobs now available in a changing economy.

<sup>4</sup> GDP slipped from 3,2% in 1996 to 1,7% in 1997, zero growth was experienced in 1998, and 3% in 2000.

Consistent with trends observed in the advanced economies of the world, the pattern of activity in the South African economy has changed, which in turn has given rise to shifts in the employment structure. The challenge facing South Africa in becoming globally competitive is aggravated by the fact that its labour force is predominantly low skilled. This can largely be attributed to the history of segregation in the provision of formal education.

Furthermore, just as different countries are in different stages of economic development, the different provinces in South Africa reflect different economic profiles. The disparities can be ascribed to several factors. The existence of opportunities (or lack thereof) that can be exploited (e.g. mineral and other natural resources, geographical location) is a major determining factor in a province or region's economic development. Although South Africa's overall structure is that of a developed country, the location and distribution of employment opportunities, and the availability of skills, differ significantly from province to province.

The efforts of industrialised nations to link education and training to continuous change in the development of their productive systems, provide useful examples for countries like South Africa. In some instances, these efforts yielded positive results, while others had to be abandoned. South Africa seems indeed to have learned from the experience of other countries, judging by the various measures that have been devised (and introduced since 1994) to enhance the skills base of the country.

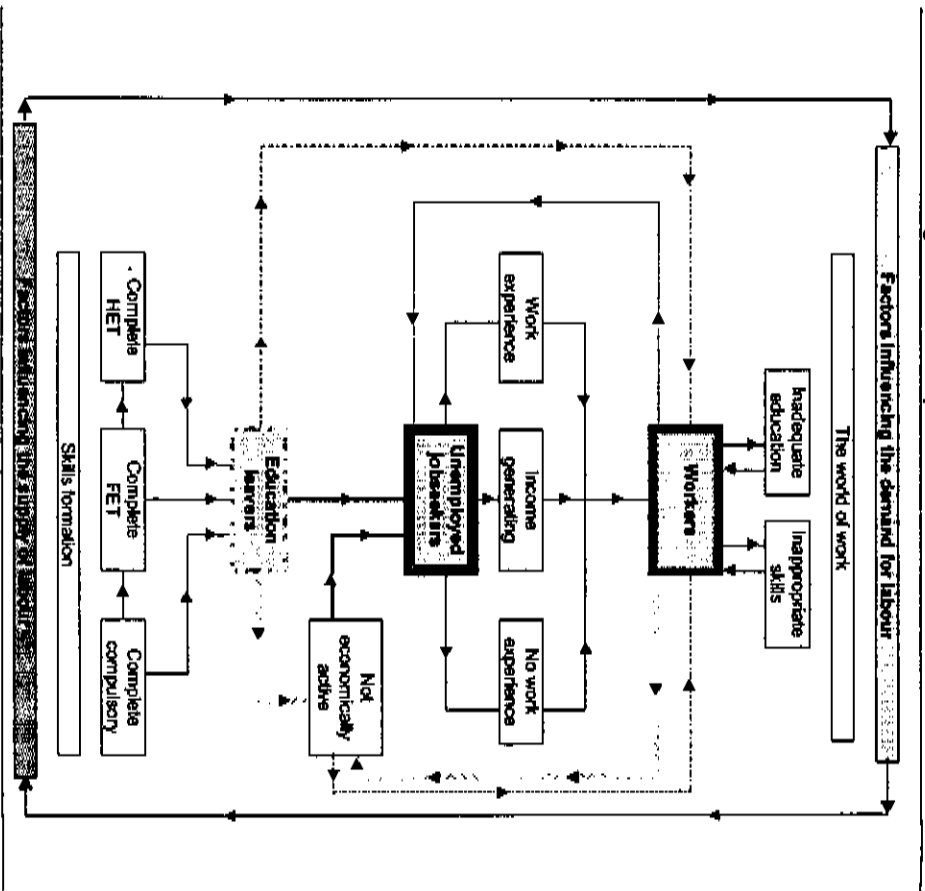
Because South Africa's education and training system (and in some instances the industrial relations system) has been modelled on those in industrialised countries, problems of co-ordination between the systems may well occur. Co-ordinated strategic action is central to success in job creation and skills formation strategies. An integrated approach to the implementation of the different innovative policy frameworks by the responsible public service departments is needed. In the following section a process model is constructed that includes those factors that may impact on the success of education and training interventions aimed at individuals with the necessary skills to create jobs for themselves and to get, keep and progress in work.

## MODEL FOR PRIORITISATION IN SKILLS FORMATION STRATEGIES

The model should be a versatile planning tool for identifying target groups, and for prioritising and implementing training for job creation strategies in the context of the socio-economic structure of South Africa and the global economy. The diagram in Figure 6 indicates the basic structure of the model, showing the flow of people entering the labour market. The broken lines represent those who are sure of employment as soon as they enter the labour market. The dotted lines represent workers who become unemployed. The track lines represent those who leave education and (re) enter the labour market without the prospect of a job waiting for them. The zigzag lines represent adults of working age who are not economically active.

The three outlined blocks, aligned vertically in the middle, represent the three broad groups identified for prioritisation. These are: education leavers (who need to be prepared for the world of work), unemployed jobseekers (who need to be equipped for self-reliance or (re)entry into the labour market) and workers (who need to stay abreast of constant changes in the workplace). The diagram in Figure 6 is highly aggregated and will be broken down into greater detail for each of the three target groups in the sections that follow.

Figure 6: Model for prioritisation in skills formation



Whether workers who enter the labour market become employed, is determined by the demand for the skills that they can offer to the workplace. Several factors influence the demand for labour. Table 1 provides an overview of these factors and the effect they have on the labour market.

**TABLE 1: FACTORS INFLUENCING THE DEMAND FOR WORKERS**

| Economic development (causes)   | Labour market trends (effects)  |
|---|---|
| <ul style="list-style-type: none"> <li>Changes in the way the economy works</li> <li>Shifts from labour-intensive production to capital-intensive processes</li> <li>Shifts away from primary and secondary industries to tertiary and service sectors</li> </ul>               | <ul style="list-style-type: none"> <li>Progressive destruction of jobs</li> <li>Declining employment opportunities for unskilled and semiskilled workers</li> <li>Increasing demand for workers with higher levels of skills</li> </ul>   |
| <ul style="list-style-type: none"> <li>Increasing competition</li> <li>Increasing use of subcontractors, suppliers and temporary workers</li> </ul>   | <ul style="list-style-type: none"> <li>Flexible production and employment practices</li> <li>Decline in formal job opportunities</li> <li>Declining wages and job security</li> <li>Increasing number of people are forced to earn a living in the informal sector</li> </ul>   |
| <ul style="list-style-type: none"> <li>Different provinces (regions) are in different stages of economic development</li> <li>Unequal distribution of resources</li> <li>Apartheid development policies</li> </ul>  | <ul style="list-style-type: none"> <li>Uneven distribution of employment opportunities between and within provinces</li> <li>Provinces with predominantly rural areas are more severely affected by unemployment</li> <li>Different unemployment rates for different population groups</li> <li>The ability of the economy to absorb labour differs between different geographical areas</li> <li>Different provinces/regions demand different levels of education</li> </ul> |
| <ul style="list-style-type: none"> <li>Economic development (effects)</li> </ul>  | <ul style="list-style-type: none"> <li>Labour market trends (causes)</li> </ul>   |
| <ul style="list-style-type: none"> <li>Slow economic progress</li> <li>Labour force outside the normal labour absorption capacity of the South African economy</li> <li>Increased use of technology (capital-intensive production methods)</li> <li>Low productivity</li> </ul> | <ul style="list-style-type: none"> <li>Shortage of appropriately skilled workers</li> <li>Relatively young labour force (rapidly increasing labour force because of high population growth rate)</li> <li>Oversupply of unskilled workers</li> <li>Low proportion of the labour force have attained formally examined vocational qualifications</li> </ul>  |
| <ul style="list-style-type: none"> <li>Decreasing foreign direct investment</li> <li>Extensive capital deepening</li> <li>Inhibits job creation</li> </ul>  | <ul style="list-style-type: none"> <li>Inflexible labour market</li> <li>High minimum wages</li> <li>Cumbersome dismissal procedures</li> <li>Legal protection of strikes</li> </ul>  |
| <ul style="list-style-type: none"> <li>Uneven occupational representation of the different population groups in the workplace</li> </ul>  | <ul style="list-style-type: none"> <li>Unequal skills distribution between the different population groups</li> </ul>   |

The skills of the workforce are an important contributor to the economic success of a country. The education and training system of a country has to be responsive to the needs of the labour market and develop workers who can face the challenges of an ever-changing workplace. Several factors influence the supply of labour. Table 2 provides an overview of these factors and the effect they have on skills formation. Some of these factors are highlighted further.

**TABLE 2: FACTORS INFLUENCING THE SUPPLY OF WORKERS**

| Flaws in the education and training system  | Effects on skills formation   |
|---|---|
| <ul style="list-style-type: none"> <li>Differences in past state expenditure on education for the different population groups and geographical areas</li> <li>Ineffective general education and training infrastructure (condition of schools such as small/lack of classrooms and access to services such as electricity)</li> <li>Ineffective general education and training provision</li> <li>Unqualified or underqualified teachers</li> </ul> | <ul style="list-style-type: none"> <li>Backlogs in the educational levels of Africans and coloureds – relative to whites and Asians – especially at university level</li> <li>Unfavourable learner/teacher ratios</li> <li>Teaching aids and other electrical equipment cannot be used</li> <li>Matriculation examination pass rates differ between and within provinces</li> </ul> |
| <ul style="list-style-type: none"> <li>Absence of a vibrant vocational education and training tradition</li> <li>High academic input, low vocational input</li> </ul>   | <ul style="list-style-type: none"> <li>Inadequate levels of the basic skills in mathematics, language, science and technology required by industry</li> <li>Low output of graduates in mathematics and science</li> <li>Insufficient generation of intermediate level skills</li> </ul>   |
| <ul style="list-style-type: none"> <li>No system of social or legal regulatory practices, which compels employers to provide good quality workplace training</li> </ul>   | <ul style="list-style-type: none"> <li>Shortage of skilled technicians and artisans in South Africa</li> <li>Insufficient access to work-based training</li> <li>Too few apprenticeships</li> </ul>   |
| <ul style="list-style-type: none"> <li>Lack of consensus among the key agents involved in the skills formation process</li> </ul>   | <ul style="list-style-type: none"> <li>Lack of training by employers</li> <li>South Africa lacks a strong component of lifelong learning</li> </ul>   |
| <ul style="list-style-type: none"> <li>Cumbersome bureaucracy</li> </ul>  | <ul style="list-style-type: none"> <li>Education and training policy loosely linked to industrial policy</li> <li>Oversupply of qualifications in categories where there is an oversupply of qualified people</li> <li>Change is slow</li> </ul>  |

The three broad groups identified for prioritisation, namely education leavers, unemployed jobseekers and workers, will now be discussed in more detail.

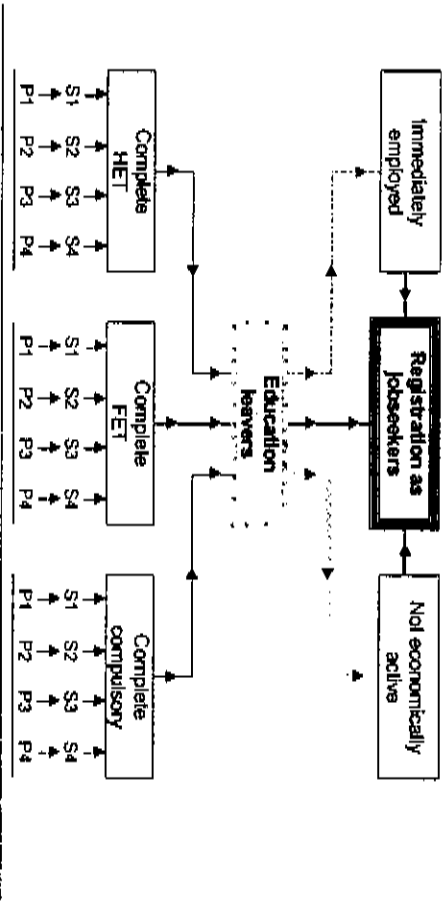
**PREPARING EDUCATION LEAVERS FOR THE WORLD OF WORK**

Attainment early in life is important: those who complete upper secondary or tertiary education have a greater chance of achieving high levels of literacy proficiency, of being employed and of having higher earnings. The South African youth is eager to complete at least upper secondary education. However, the academically oriented high school education fails to prepare school leavers for the world of work. Furthermore, careers have become less stable and less clearly delineated. It has therefore become harder to make meaningful matches between the traits of persons and occupations. The school system – especially FET providers – should provide the basic skills in mathematics, language, science and technology required by industry. The overarching aim of educational and

training institutions should be to produce students who are effective, hardworking, opportunistic and creative.

Figure 7 focuses on the preparation of young adults for entering the labour market. They can leave the education system – to start a working career or start a family – at one of three exit points. Some leave the education system after completion of compulsory education, while others go on to complete the further education and training phase and then enter the labour market. A third group obtains higher education and training qualifications before they enter the labour market. The broken lines represent those who are sure of employment as soon as they enter the labour market. The track lines represent those who leave education and are reentering the labour market without the prospect of a job waiting for them. The zigzag lines represent adults of working age who are not economically active.

Figure 7. Preparing learners for the world of work



How ready a learner is to enter the world of work depends on the quality of education he/she receives, which is beset with problems (P) – see Table 2 – that should be prioritised for action steps (S). Some of these problems are now highlighted and suggestions for solving them made.

#### PROBLEMS INFLUENCING THE QUALITY OF EDUCATION AND POSSIBLE SOLUTIONS

**Problem statement:** Too many high school students follow a social sciences curriculum; too few of those taking mathematics and science courses pass, while even fewer are enrolled in vocational education and training courses. Possible solutions include the following:

- Qualified mathematics and science teachers should be given recognition through higher salaries (otherwise they may be lost to the private sector).
- More instructional time should be devoted to subjects such as mathematics, science and technology, and working language.

- Mathematics should be compulsory up to Grade 12 level. Those who need matriculation exemption for HET enrolment can follow a higher standard course, while those following vocational courses can attend lower standard courses.

**Problem statement:** Young adults need career guidance to familiarise them with career options and their requirements. The following steps should be considered:

- HET enrolments in the social sciences should be restricted, while enrolments in the natural and business sciences should be encouraged.
- High school curricula that stress creativity, flexibility and emotional intelligence should be introduced.

**Problem statement:** Members of more affluent families are better placed to finance their own training. This disparity in capacity to undertake training may not only render job opportunities and hence income distribution more unequal, but may also be inefficient – denying training to bright but poor individuals. Two policy options are available:

- Extending compulsory education to 12 years of formal schooling to culminate in the equivalent of a matriculation qualification.
- Introducing a training loan scheme for indigent students who cannot afford to enter the senior secondary school phase. By requiring loan repayment upon future employment, such a scheme could in principle be largely self-financing, thus in turn providing financing for the training of the next generation.

**Problem statement:** Learners who enter the labour market after completion of compulsory schooling lack intermediary skills, struggle to find employment and risk further alienation. A cross-cutting solution may be to register education leavers who are not sure of employment as jobseekers.

- Especially those learners who completed their compulsory schooling and are forced to enter the labour market with a compulsory school leaver's certificate should be registered as jobseekers.
- By the third quarter of the school year, every Grade 9 learner who decides not to enter FET after successful completion of exit examinations should be registered at the Department of Labour as a jobseeker. Here the school plays a crucial role in the registration process.
- Jobseekers can now be enlisted for community service, training programmes (basic and social skills training) and learnerships (FET). A programme similar to the New Deal programme introduced recently in the UK can be followed.
- Grade 9 learners who cannot afford to enter FET but have shown the ability to pursue an academic career, should be entered into a loan scheme to enable them to complete the senior secondary school phase. Especially those learners who achieved high standards in mathematics and science should be assisted to further their qualifications at institutions of higher education and training.
- Similarly, providers in the further and higher education and training bands of the NCF should be tasked with the responsibility to register education leavers. Such registration will serve several purposes:
  - Enable planning for the utilisation of school leavers in community service (as is currently the policy with graduates in the medical field)
  - Serve as a talent bank where employers can recruit qualified workers
  - Identify candidates for bursaries or loans to further their education

- Identify young adults for entry into a New Deal programme
- Catching learners as they leave education with a view to enhancing their employability will gradually improve the quality of the supply of labour in the country. However, the fact that a large percentage of South Africa's economically active population is unemployed, presents a major challenge. The second broad group that needs to be targeted for skills formation is therefore this large number of unemployed people.

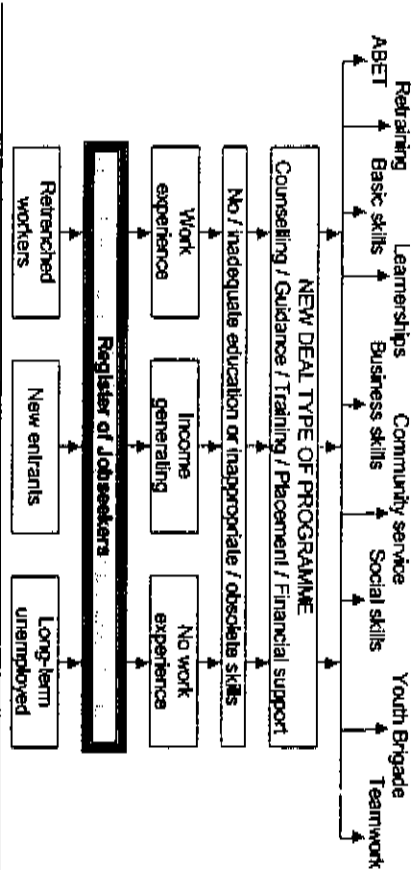
#### PREPARING THE UNEMPLOYED FOR SELF-RELIANCE OR (RE) ENTERING THE LABOUR MARKET

Like many other countries, South Africa is struggling with growing unemployment. The number of formal job opportunities is decreasing as the economy shifts from labour-intensive production to capital-intensive processes. Parallel to the shifting emphasis away from primary and secondary industries to tertiary and service sectors, there is a movement within individual sectors away from unskilled and semiskilled occupations to those that require higher levels of skill. The unemployment problem is therefore aggravated by the fact that South Africa's unemployed population is predominantly low skilled. A concerted effort is needed to register the unemployed and expand the job counselling and placement services of the Department of Labour.

Figure 8 provides a framework for the identification and prioritisation of training and job placement services for the unemployed. Three target categories of unemployed people can be identified:

- Those who were previously employed, but who lost their jobs due to retrenchments.
- Those who are entering the labour market for the first time without the prospect of immediate employment, and those re-entering the labour market after a period of economic inactivity.
- Those who are in long-term unemployment.

Figure 8: Preparing the unemployed for (re-) employment or self-reliance



Three important factors here are firstly the identification of a classification system that can be used to organise people according to their real economic status. For example:

- persons not in formal employment but involved in income-generating or subsistence activities
- the unemployed wanting to be formally employed
- the discouraged unemployed
- those unemployed and wholly dependent on remittances from family and friends
- the unemployed with no source of income or hope of becoming employed

The second important factor concerns the manpower needed to register people – the employment offices of the Department of Labour, as well as welfare paypoints and local business service centres, could be used as registration points – and, thirdly, access to established databases.

The broad indicators for use in a classification system would include people's economic status, income levels, level of education, and previous work experience. A comprehensive labour market information system is being established under the auspices of the Department of Labour and it can be assumed that, in the process, a classification system to identify people's real economic status will be developed. This could help kick-start the registration of economically active people who are not formally employed or self-employed. Such a database – outlining the skills of the unemployed, their previous work experience, level of education and current work status – would enable the profiling of target groups for involvement in specific interventions. For example:

- Unemployed people (not involved in income generation) with low levels of education and some labour-intensive work experience, could be included in special job creation projects such as public works programmes and labour-intensive manufacturing and construction projects.
- People who see themselves as unemployed but are involved in income-generating and subsistence activities, could be included in small business development and agricultural training programmes.
- Unemployed people (not involved in income generation) with higher levels of education, could be included in youth brigade and learnership programmes.
- Unemployed people (not involved in income generation or job-seeking activities) with low levels of education, little or no work experience and skills and no source of income (e.g. remittances), could be supported by means of a social security system.

The Department of Labour should itself give career guidance training to unemployed youths who obtained Grade 8, and register unemployed people according to the identified classification system. These trained youths could then be deployed in their own communities in the Department of Labour's employment offices, in the Department of Trade and Industry's accredited local business services centres, in other organisations that provide SMIIE support, and at the Department of Welfare's paypoints. Registration could even take place at church- and community-based shelters for the poor.

A computerised system is needed for registration, which should allow for networking via the Internet. Captured data should be recorded daily with the existing database of registered unemployed persons at the Department of Labour. New registrations should be added and duplications rejected. Where registration points are not linked to a mainframe, new registrations should be faxed or phoned to locations that have access to the

computerised system. The database will serve not only as a classification and registration facility, but also as a talent bank. Giving labour offices, local business centres and paypoints access to such a database will put them on the road to becoming one-stop local employment agencies.

Those who commission special job creation projects should inform mainframe data processors of the locality, scope and length of envisaged projects. This will enable employment agencies to compile a profile of local manpower that could be used on projects. The departments in charge of special job creation projects should set clear directives as to how local communities should be involved in the projects. Those interested in tending for a project should provide a breakdown of the skills and the number of people needed for the project, and indicate how local employment agencies will be approached to obtain the manpower.

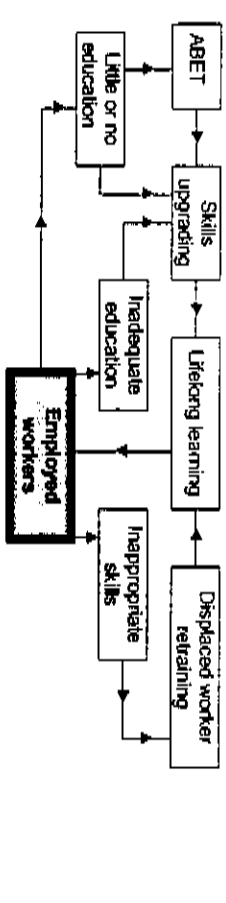
The ideas offered here are merely broad suggestions. Appropriate programme design is vital if the full benefits of strategies for job creation and skills formation are to be realised. Getting people into employment is a formidable task, and another challenge is to keep those who are in jobs employed.

### ENHANCING THE SKILLS OF EMPLOYED WORKERS

There is mounting evidence of the benefits for the whole society of growth in the proportion of young people gaining qualifications at upper secondary or tertiary levels. However, an inflow of better-educated young people will only very gradually change the overall educational level, if not the skills level, of the existing workforce. This is currently relatively low, considering that more than two-thirds (67%) of all South African workers had the equivalent of only NQF level 1 (Grade 9) or less at the time of Census 96. Only a fifth (20%) had a Grade 12 qualification, while even fewer (13%) had tertiary qualifications. There is also a shortage of adequately trained teachers in especially mathematics and science, and many government officials lack administrative and management skills.

Figure 9 shows the third broad target group, namely employed workers. The objective is to provide a literate employed population capable of following basic instructions, and to improve the skills of those with inadequate and inappropriate levels of education.

Figure 9: Enhancing the skill levels of the currently employed



The newly adopted strategies to enhance skills formation in South Africa – especially the national qualifications framework and the skills development strategy – have created the framework for the recognition and compilation of credits through part-time studies,

distance learning, and modular programmes that can address individual learning needs through a combination of learning while working and working while learning. Workers need to be informed about the changing world of work to help them plan ahead and make career development decisions. This will enable workers to provide informed inputs in the development of workplace skills plans.

It is hoped that the skills development strategy will succeed in fostering skills development in the formal economy, resulting in higher productivity and economic growth. Employers should be sensitised to the need to identify workers who have inadequate education and inappropriate skills levels, and to target them for training when workplace skills plans are developed. Sector Education and Training Authorities (SETAs) should not only be responsible for the promotion of standards and training, but should take up the task of teaching employers to organise and implement training programmes effectively.

### SUMMARY

Whether workers who enter the labour market become employed is determined by the demand for the skills that they can offer to the workplace. The education and training system of a country has to be responsive to the needs of the labour market and develop workers who can face the challenges of an ever-changing workplace. People who lose their jobs due to changes in employment practices – and those (re)entering the labour market – find they do not have the required skills to move to the new jobs now available in a changing economy. Furthermore, unemployed people in South Africa are often discouraged by the lack of job opportunities in their areas, and their own lack of education and work-related skills. Co-ordinated strategic action is central to the success of skills formation and job creation strategies. This can be achieved through the identification of specific groups to be targeted for skills development and employment.

The model presented here was constructed to provide a planning tool for identifying target groups, and for prioritising and implementing training for job creation strategies in the context of the socio-economic structure of South Africa. Three broad groups were identified for prioritisation, namely education leavers with no prospects of immediate employment, unemployed jobseekers and workers who are inadequately or inappropriately skilled.

Learners who enter the labour market after completion of compulsory schooling lack intermediary skills, struggle to find employment and risk further alienation. Similarly, learners who enter the labour market after completion of a post-school diploma or degree in a field of study for which there is a low demand, struggle to find employment. A cross-cutting solution may be to register education leavers who are not sure of employment as jobseekers.

Especially those learners who completed compulsory schooling and who enter the labour market with a compulsory school leaver's certificate, should be registered as jobseekers. Registered jobseekers can be enlisted for community service (Youth Brigade), training programmes (basic and social skills training) and learnerships (FET). Especially those learners who achieved high standards in mathematics and sciences should be assisted to further their qualifications at institutions of higher education and training.

With regard to the second broad target group (the unemployed), a system of registration is also proposed to identify and prioritise the provision of training and job placement services for such people. The unemployed should be registered according to an identified classification system so that targeted assistance can be given (e.g. to those who have no or little education, those who have previous work experience, but need retraining).



Education leavers should be trained by the Department of Labour as volunteers to deliver a basic career guidance service in their communities.

The third broad target group is those workers who have no or little education and/or whose acquired skills are becoming obsolete. Employers should be sensitised to the need to identify workers who have inadequate education and inappropriate skills levels and to target them for training when workplace skills plans are developed.

## REFERENCES

- ADAM, J.H. 1982. Longman Dictionary of Business English. Essex: Longman. 492 p.
- ARONOWITZ, S. & DIFAZIO, W. 1994. The jobless future: sci-tech and the dogma of work. Minneapolis: University of Minnesota Press. 392 p.
- ASHTON, D. & GREEN, F. 1996. Education, training and the global economy. Cheltenham: Edward Elgar. 226 p.
- BADENHORST, O. 2000. All aboard the office trains. *Finance week*:7, Jan. 29.
- BARKER, F.S. 1999. The South African labour market: critical issues for renaissance. 3rd ed. Pretoria: Van Schaik. 305 p.
- BARKER, F.S. 2000. But will there be jobs? *Finance week*:7, Jan. 16.
- BARNET, R.J. 1993. The end of jobs: employment is one thing the global economy is not creating. *Harper's magazine*:47-52, Sept.
- BENNER, C. 2000. Building community-based careers: labour market intermediaries and flexible employment in Silicon Valley. (Paper read at the Urban Futures Conference held at the University of Witwatersrand 10-14 July 2000.) Johannesburg. 37 p. (Unpublished.)
- BHORAT, H. & HODGE, J. 1999. Decomposing shifts in labour demand in South Africa. *South African Journal of Economics*. 67(3):348, Sept.
- BLOSSFELD, H.P. & STOCKMANN, R. 1999. The German dual system in comparative perspective. *International Journal of Sociology*, 28(4):3-28, Winter.
- BOOTH, A.L. & SNOWER, D.J. eds. 1996. Acquiring skills: market failures, their symptoms and policy responses. Cambridge: Centre for Economic Policy Research. 354 p.
- CAPPELLI, P., BASSI, L., KATZ, H., KNOKE, D., OSTERMAN, P. & USEEM, M. 1997. Change at work. New York: Oxford University Press. 276 p.
- THE WORLD BANK. 1993. The East Asian miracle: economic growth and public policy. Washington, D.C.: The International Bank for Reconstruction and Development. 34 p.
- CRONIN, J. 1998. Gearc. policy or posture? *Enterprise*: supplement:54-55, Sept.
- CSS (Central Statistical Service). 1995. RSA: statistics in brief. Pretoria.

CSS (Central Statistical Service). 1996. October Household Survey 1995. Pretoria. 80 p. (Statistical release P0317.)

DAVIS, S.J., HALTIWANGER, J.C. & SCHUH, S. 1997. Job creation and destruction. Cambridge: MIT Press. 260 p.

DEKKER, E. 1996. The education system of the Federal Republic of Germany. (In Dekker, E. & Van Schalkwyk, O.J., eds. *Modern education systems*. 2nd ed. Johannesburg: Heinemann. p.47-132.)

DELFA (Department of Economy, Labour and Foreign Affairs, Geneva). 1998. *International Comparisons*. Geneva: Department of Economy, Labour and Foreign Affairs. 77 p.

DONALDSON, A.R. 1997. Social development and macroeconomic policy. *Development Southern Africa*, 14(3):447-482, Oct.

DONN, G. 1996. International policy-making: global discourses and the National Qualifications Framework. (In Morrow, W. & King, K., eds. *Vision and reality: changing education and training in South Africa*. Cape Town: UCT Press. p.71-85.)

DOUTHWAITE, R.J. 1996. Short circuit: strengthening local economies for security in an unstable world. Devon: Green Books. 396 p.

EDWARDS, C. 1997. State failure or market failure? The ten steps to a levy-grant system of vocational training. (In Godfrey, M., ed. *Skill development for international competitiveness*. Cheltenham: Edward Elgar. p.169-200.)

FALLON, P. & LUCAS, R. 1998. South Africa labour markets: adjustment and inequalities. Washington: World Bank. 35 p.

FOURIE, F.C.M. 1999. Inflation and unemployment causes and remedies. (In Fourie, F.C.M. *How to think and reason in macro economics*. Kenwyn: F.C.M. Fourie and Juta. p.333-372.)

GRIFFITHS, H.R. & JONES, R.A. 1980. South African labour economics. Johannesburg: McGraw-Hill. 305 p.

HEINTZ, J. & JARDINE, C. 1998. Poverty and economics: an alternative framework. *SA labour bulletin*, 22(4):17-22, Aug.

ILO (International Labour Office). 1996. Yearbook of labour statistics: 1996. 55th ed. Geneva. 1145 p.

MAUHERBE, E.G. 1975. Education in South Africa. Volume 1, 1652-1922. 2nd ed. Cape Town: Juta. 521 p.

MARTIN, H.P. & SCHUMANN, H. 1997. The global trap: globalization and the assault on prosperity and democracy. Pretoria: HSRC. 269 p.

MARTINS, J.H. & TUSTIN, D.H. 1999. Profile of labour skills and employment of SAMES in selected areas, 1996. Pretoria: Bureau of Market Research, UNISA. 267 p.

MITTNER, M. 1998. SA's problems not unique. *Finance week*:23, Oct. 52.

- MURNANE, R.J. & LEVY, F. 1996. Teaching the new basic skills: principles for educating children to thrive in a changing economy. New York : Free Press. 250 p.
- MURPHY, M. 1997. A skills and training strategy for Britain. (In Hoare, S. & Jolly, A., eds. 1999. Skills and training handbook. London : Kogan Page.) p.4-9.
- NEEF, D. 1999. A little knowledge is a dangerous thing: understanding our global knowledge economy. 2nd ed. Boston : Butterworth-Heinemann. 228 p.
- NAUDÉ, W. 1999. Unemployment: an insurmountable obstacle to sustainable development? *Word and action*, 36(370):19-22, Summer.
- PORTER, M.E. 1990. The competitive advantage of nations. New York : Free Press. 855 p.
- POWELL, A. 1999. The new network National Training Organisations - leading the drive for world class skills. (In Hoare, S. & Jolly, A., eds. Skills and training handbook. London : Kogan Page. p.43-49.)
- PRATS, S.J. 1995. Productivity, education, and training: an international perspective. Cambridge : Cambridge University Press. 138 p.
- ROBERTS, A. 1998. Time for Gear - version 98 (with added marketing). *Financial mart*:17, Jul. 16.
- RYAN, E. 1998. Is the worst over? *Enterprise*:38-45, Oct.
- SCHOOMBEE, P. 1998. Crime, jobs dominate business concerns. *Finance week*:16, Oct. 21.
- SHACKLETON, J.R., CLARKE, L., LANGE, T. & WALSH, S. 1995. Training for employment in Western Europe and the United States. Cheltenham : Edward Elgar. 266 p.
- SKILLS DEVELOPMENT ACT. T see SOUTH AFRICA. 1998a.
- SKILLS DEVELOPMENT BILL see SOUTH AFRICA. 1997a.
- SKILLS DEVELOPMENT LEVIES ACT see SOUTH AFRICA. 1999.
- SOUTH AFRICAN QUALIFICATIONS AUTHORITY ACT see SOUTH AFRICA. 1995.
- SOUTH AFRICA. 1995. South African Qualifications Authority Act, No. 58 of 1995. Pretoria : Government Printer.
- SOUTH AFRICA. 1996a. Consultation of the Republic of South Africa as adopted by the Constitutional Assembly on 8 May 1996 and as amended on 11 October 1996. (B34B-96.) (ISBN: 0-260-20716-7.)
- SOUTH AFRICA. 1996b. South African Schools Act, No. 84 of 1996. Pretoria : Government Printer.
- SOUTH AFRICA. 1996c. South African Schools Bill, No. 503 of 1996. Pretoria : Government Printer.
- SOUTH AFRICA. 1997a. Higher Education Act, No. 101 of 1997. Pretoria : Government Printer.
- SOUTH AFRICA. 1997b. Skills Development Bill, No. 1296 of 1997. Pretoria : Government Printer.
- SOUTH AFRICA. 1998a. Skills Development Act, No. 97 of 1998. Pretoria : Government Printer.
- SOUTH AFRICA. 1998b. Further Education and Training Act, No. 98 of 1998. Pretoria : Government Printer.
- SOUTH AFRICA. 1999. Skills Development Levies Act, No. 9 of 1999. Pretoria : Government Printer.
- SOUTH AFRICA. Department of Education. 1997a. White paper 3: a programme for the transformation of higher education. *Government gazette*: 18207, August 15. 120 p.
- SOUTH AFRICA. Department of Education. 1997b. Curriculum 2005: lifelong learning for the 21st century. Pretoria : Department of Education. 32 p.
- SOUTH AFRICA. Department of Education. 1997c. A national multi-year implementation plan for adult education and training: provision and accreditation. Pretoria : Department of Education. 297 p.
- SOUTH AFRICA. Department of Finance. 1996. Growth, employment and redistribution: a macroeconomic strategy. Pretoria : Department of Finance. 21 p.
- SOUTH AFRICA. Department of Labour. 1997. Green Paper: skills development strategy for economic and employment growth in South Africa. Pretoria : Department of Labour. 87 p.
- SOUTH AFRICA. Department of Labour. 1998. Declaration of the Presidential Jobs Summit. Pretoria : Department of Labour. 95 p.
- SOUTH AFRICA. National Committee on Further Education. 1997. Report of the National Committee on Further Education: a framework for the transformation of further education and training in South Africa. Pretoria : Department of Education. 212 p.
- SOUTH AFRICA. National Youth Commission. 1998. Green paper on national youth service. Pretoria : Office of the President. 125p.
- STATS SA (Statistics South Africa). 1998. Census in brief. Pretoria.
- STATS SA (Statistics South Africa). 1999. Population census 1996. Pretoria : HSRC. [CD-ROM.]
- STATS SA (Statistics South Africa). 2000a. Gross domestic product: annual estimates 1993-1998. [Web.] <http://www.statssa.gov.za/RELEASES/MATACCNT/4thq99/p0441.htm> [Date of access: 20 Sept. 2000].
- STATS SA (Statistics South Africa). 2000b. The people of South Africa: population census, 1996. Pretoria. 143 p.
- SUNTER, C. 1999. Never mind the millennium: what about the next 24 hours? Cape Town : Human & Rousseau/Trafalberg. 96 p.

- TEMKIN, S. 2001. Job losses accelerate as economic growth hits a four-year high in SA. *Business day*:28, Mar. 4.
- VAN DYK, P.S., NEL, P.S., LOEDOLFF, P. VAN Z. & HAASBROEK, G.D. 1997. Training management: a multidisciplinary approach to human resources development in South Africa. Johannesburg : International Thomson Publishing. 579 p.
- WELLS, A. 1999. Better basic skills, better work. (In Hoare, S. & Jolly, A., eds. Skills and training handbook. London : Kogan Page. p.23-27.)
- WHITEFORD, A., VAN ZYL, E., SIMKINS, C. & HALL, E. 1999. SA labour market trends and future workforce needs 1999-2003. Pretoria : HSRC. 126 p.
- THE WORLD BANK. 1993. The East Asian miracle: economic growth and public policy. Washington, D.C.: The International Bank for Reconstruction and Development. 34 p.