The Post-Apartheid South African Labour Market:

A STATUS REPORT

Prepared by Laura Poswell

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Development Policy Research Unit
University of Cape Town
Private Bag
Rondebosch
7700
SOUTH AFRICA

Email: dprupub@commerce.uct.ac.za
Tel: +27 21 650 5704
Fax: +27 21 650 5711
Web: www.uct.ac.za/depts/dpru/
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The labour market often lies at the centre of South Africa’s numerous economic growth and policy challenges. These challenges relate to issues such as skills constraints, unemployment, emigration and the impact of HIV/AIDS. The aim of this publication is to collate and crystallise the key research that has been undertaken in these diverse areas.

Ultimately it is hoped that the publication serves as a useful reference document for policy makers, unionists and other individuals and institutions interested in the detailed workings of the South African labour market. While clearly not exhaustive, this status report does attempt to cover a wide set of labour market issues.

The first section of the report examines the changes in the size of the labour force, employment and unemployment from 1995 to 1999. The data is disaggregated by sector and occupation and according to indicators such as race, gender and education. This is followed by a more detailed examination of the relative shifts in demand for labour that have occurred due to both structural and technological change. The second section considers the labour force in terms of its real earnings. We look at wages, the incidence of poverty and inequality, and the role of unions. Section 3 then examines two areas of industrial policy that have been of interest in terms of employment creating potential. Specifically, how have small, medium and micro enterprises (SMMEs) and increased international trade performed in terms of labour absorption? The fourth section deals with two issues that currently characterise the South African labour force, that will continue to play a significant role in the years to come and that are crucial to consider when formulating labour market policy. The issues are the impact of labour migration and the HIV/AIDS pandemic. Finally conclusions are drawn.

1.1 A note on the data and sources used

The report is a compilation of some of the most recent research done on the South African labour market. Most statistics are based on the October Household Surveys (OHS) released by Statistics South Africa (STATS SA). The 2 main years of interest, and the source of comparisons, are 1995 and 1999. It must be noted that statistics will differ from those officially available in instances where methodologies differ or different weighting systems have been used. In Section 1, the research on which this study is based uses 1996 Census weights for both OHS 1995 and OHS 1999 in an attempt to achieve comparability and consistency. Also, owing to problems with the measurement of the informal sector in the OHS 1995, it is not possible to analyse changes in formal and informal employment separately from 1995 to 1999. Therefore, in order to gauge the full extent of employment shifts, estimates include both the formal and informal sectors.

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1 Bhocai, H (1999).
Labour Supply and Demand

The first section of the report provides a picture of what has happened in terms of employment and unemployment over the five years from 1995 to 1999. We examine the data by sectors and occupations and by race, gender and education discriminators.

2.1 Total employment
In the period from 1995 to 1999, South Africa experienced increases in both the demand for, and the supply of labour. The growth in supply, however, outstripped the growth in demand which has led to an ever worsening employment gap. Table 1 below shows there was a rise in employment of over 1.13 million jobs over the five-year period. This, nevertheless, was insufficient to absorb the additional 3.13 million workers that joined the labour force over the same time. The result is surplus labour of close to 6 million in 1999. The broad rate of unemployment rose from an already high 29.24% in 1995 to 35.85% in 1999.

Table 1: Changes in Employment by Sector, 1995 to 1999

<table>
<thead>
<tr>
<th>Sector</th>
<th>1995</th>
<th>1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>25,24</td>
<td>35,85</td>
</tr>
<tr>
<td>Mining</td>
<td>3,883</td>
<td>5,883</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>5,883</td>
<td>7,883</td>
</tr>
<tr>
<td>Financial and business services</td>
<td>12,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Construction</td>
<td>3,883</td>
<td>5,883</td>
</tr>
<tr>
<td>Trade</td>
<td>12,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Transport</td>
<td>3,883</td>
<td>5,883</td>
</tr>
<tr>
<td>Mining</td>
<td>3,883</td>
<td>5,883</td>
</tr>
<tr>
<td>Employment</td>
<td>16,412</td>
<td>25,161</td>
</tr>
<tr>
<td>Economically Active Population (EAP)</td>
<td>13,280</td>
<td>16,412</td>
</tr>
</tbody>
</table>

It is extremely important to note that even though unemployment has increased, so have the number of jobs the economy has created. The country did not actually experience the much postulated "jobless growth" from 1995 to 1999. Rather, aggregate employment increased by approximately 12%.

2.2 Employment shifts by sector
Not all industries have experienced the same fate in terms of growth or decline. Looking more closely at a breakdown of the changes in employment across sectors reveals who the winners and losers have been over the 5-year period.

Figure 1 shows that, at a sectoral level, the greatest absolute increases in employment have been in trade and finance with nearly 460 000 jobs being created in trade industries and almost 360 000 in the financial sector. The highest growth was experienced in financial and business services with an increase of 61.4% in employment, followed by construction (31.4%), trade (27.8%) and transport (15.7%). Mining employment increased by 10.5%. Manufacturing, South Africa's largest contributor to gross domestic product (GDP), increased employment by a modest 6.7%. The two sectors that exhibited job attrition were agriculture and utilities with agricultural employment decreasing by 3.3% and utilities by 6.6%.

See Box 1 (page 6) for a discussion of the appropriate definitions of unemployment.

Whether this increase has been mainly in the formal or informal sector is extremely difficult to deduce due to the data collection problems. See a note on the data and sources used in Section 1.1.

This figure should be interpreted with care as the rise may be the result of a more complete sampling frame being used to cover mining hostels in the 1999 than in the 1995 OHS and may not actually indicate a rise in mining employment.
Figure 2 shows the share of employment by sector in 1999. It can be seen that community services, the bulk of which is accounted for by the public sector, is the greatest provider of jobs followed by internal trade and manufacturing. This high share of public sector employment compares well with both developing and developed country data.

In order to provide an assessment of the changing job allocation process, we tabulate here the share of employment by sector and how this has changed over the period 1995 to 1999. Notably, the primary sectors (agriculture and mining), manufacturing, utilities and community services are contributing relatively less to total employment than previously. The sectors that are becoming increasingly important in terms of labour demand are finance, internal trade, construction and transport.

Community services and utilities are both dominated by the public sector. The decline in employment share in these sectors is reflective of a public sector that has been undergoing a period of rationalisation and restructuring since 1995.

To gain a more accurate picture of public sector employment shifts, one can examine community services data excluding domestic services. These figures suggest that the public sector shed more than 140 000 jobs between 1995 and 1999, representing a decline in employment of 7% over the period.

With a government aim of decreasing inefficiencies, reducing the wage bill and increasing outsourcing of non-core public sector activities, we have seen job reductions in our largest employer. It is expected that these decreases will continue in the next few years, placing even more pressure on other sectors to increase employment opportunities.

<table>
<thead>
<tr>
<th>Sectors</th>
<th>1995</th>
<th>1999</th>
<th>Change in Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unspecified</td>
<td>1.99</td>
<td>1.52</td>
<td>-0.46</td>
</tr>
<tr>
<td>Agriculture</td>
<td>12.61</td>
<td>10.88</td>
<td>-1.73</td>
</tr>
<tr>
<td>Mining</td>
<td>4.61</td>
<td>4.54</td>
<td>-0.07</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>15.12</td>
<td>14.39</td>
<td>-0.73</td>
</tr>
<tr>
<td>Utilities</td>
<td>0.89</td>
<td>0.75</td>
<td>-0.15</td>
</tr>
<tr>
<td>Construction</td>
<td>4.61</td>
<td>5.41</td>
<td>0.8</td>
</tr>
<tr>
<td>Trade</td>
<td>17.55</td>
<td>20.03</td>
<td>2.47</td>
</tr>
<tr>
<td>Transport</td>
<td>4.99</td>
<td>5.16</td>
<td>0.17</td>
</tr>
<tr>
<td>Financial</td>
<td>6.2</td>
<td>8.93</td>
<td>2.73</td>
</tr>
<tr>
<td>Community Services</td>
<td>31.42</td>
<td>28.39</td>
<td>-3.03</td>
</tr>
</tbody>
</table>

Source: Own calculations from OHS 1999.

\(^1\) See Appendix for absolute employment levels by race and gender for 1995 and 1999.
2.3 Employment shifts by occupation

As illustrated previously, from 1995 to 1999 South Africa experienced aggregate employment growth of 1.13 million or 12%. Changing patterns of demand operating in the economy over the period meant that the job increase impacted on different occupation types to a varying degree. Figure 3 reveals the relevant shifts. It can be seen that from 1995 to 1999 there has been an increase in demand for all occupations with the exception of clerks.

The biggest winners in terms of percentage increases in employment were professionals (72.6%) and managers (37.8%), together accounting for approximately 430,000 new jobs created. Employment in crafts increased by 25.2% adding another 275,000 new jobs. We also observe an increase in elementary work of 7.6%. Although this increase is not high in growth terms, it still accounts for 230,000 jobs created in absolute terms. The poorest performer is clerks for which employment declined by 4.5% or more than 50,000 jobs.

Although we have seen increases in employment across the occupations, against the benchmark of a 24% increase in the economically active population as a whole, it is only the demand for professionals, managers and craftsmen that has grown adequately over the period.

In fact, analysing the data by skills type reveals an important picture. Figure 4 below shows that there has been a relative increase in the share of highly-skilled workers demanded, almost stationary demand for the share of semi-skilled workers but a relative decline in the share of unskilled and elementary workers demanded. This highlights the extremely skills-biased nature of employment growth in South Africa in the short time from 1995 to 1999 and is in line with studies of longer term demand trends which exhibit the same pattern6.

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6 See Bhorat and Hodge (1999).
2.4 Employment by race, gender and education

Over the five years from 1995 to 1999, changes in demand for labour across sectors and occupations have affected the race groups, genders and those with different levels of educational attainment to varying degrees.

2.4.1 Employment and race

Employment increased for all races over the period. Coloured employment grew the most by 16.4%, followed by Asian (12.8%), African (12.2%) and finally White (7.8%). Owing to significant increases in the economically active population from 1995 to 1999, however, the economy has not been able to generate sufficient jobs to absorb a large proportion of labour market entrants.

The greatest increase of the EAP in both absolute and percentage terms can be attributed to Africans, whose number increased by over 2.5 million or 27.2% from 1995 to 1999. The economically active Asian population increased by 22.1% followed by Coloureds at 18.3% and Whites at 10.0%.

To what extent has the economy been able to absorb new labour market entrants of different races over the period? How many of those newly searching for a job from 1995 to 1999 actually found work? Figure 5 illustrates what we will term the labour absorption rate - the percentage of those in each race group who entered the labour force and found employment between 1995 and 1999. It can now be seen that although Africans experienced a higher percentage increase in employment than Whites over the period, in terms of relative absorption of labour by race, the situation is reversed. Specifically, only 28.7% of new African labour market entrants looking for work over the 5 year period were able to find it. This compares poorly with a still low 50% for Asians, and a healthier 69.7% and 74.7% for the Coloured and White populations respectively. Hence, while there has been positive employment growth across all race groups, in relative terms the performance has been tepid.

**Figure 5:**
The Percentage Change in the Economically Active Population, Employment and the Labour Absorption Rate by Race, 1995 to 1999

<table>
<thead>
<tr>
<th>Race</th>
<th>% Change in Employment</th>
<th>% Change in EAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>African</td>
<td>12.2</td>
<td>27.2</td>
</tr>
<tr>
<td>Coloured</td>
<td>16.4</td>
<td>18.3</td>
</tr>
<tr>
<td>Asian</td>
<td>12.8</td>
<td>22.1</td>
</tr>
<tr>
<td>White</td>
<td>7.8</td>
<td>10.0</td>
</tr>
<tr>
<td>Total</td>
<td>12.0</td>
<td>23.6</td>
</tr>
</tbody>
</table>


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7 See Appendix for absolute employment levels by race and gender for 1995 and 1999

8 It must be noted that the labour absorption rate is a static measure. We can say nothing about what happens within the picture in terms of changing labour market status. Naturally people move between various states of labour market entry, job search, employment and unemployment. The labour absorption rate refers to the net effect and is therefore just a descriptive measure which attempts to provide an idea of the economy’s capacity to absorb new members of the labour force.
The combination of a rapidly growing labour force and insufficient capacity for labour absorption translates into rising unemployment for all race groups as shown in Figure 6.

Indeed, African unemployment increased by a massive 1.8 million over only 5 years resulting in an unemployment rate of 43.7% in 1999. The number of Coloured people unemployed rose by almost 80 000. Although this only represents an increase of 1.3%, the unemployment rate in 1999 was still a high 23.4%. Asian unemployment rose substantially to reach a high of 20% in 1999, while the unemployment rate amongst Whites rose to 6.7%.

In race group terms, therefore, Africans are by far the worst off with respect to both the percentage unemployed and the relative labour absorption rate. Once again, however, it is the increase in the economically active population that are largely driving the rising unemployment.

**Figure 6**
The Unemployment Rate by Race, 1995 and 1999

![Unemployment Rate by Race](source: Bhorat (2001)).

**Box 1: The Definition of unemployment: Broad versus Narrow**

When analysing labour market status and trends one needs to decide on clear and acceptable definitions of the labour force and unemployment. The labour force, or *economically active population* (EAP), consists of all those usually in the age group of 16-64 who are willing and able to do economic work. Unemployment is generally defined according to either the narrow or the broad definition. The narrow definition refers to all those people in the labour force who are jobless and have actively looked for work over some previous time period (typically a week to a month before a survey). Broad unemployment includes all those without a job who claim they would like to work, even if they have not exhibited any search effort in the stipulated period - the so-called 'discouraged workers'.

Prior to 1998, South Africa was using the broad measure as the official unemployment rate. Based on an ILO report of 1996, the official stance changed and STATS SA instituted the narrow definition as the appropriate measure, largely due to the fact that this was the measure used in most other countries. Recent work suggests however that the broad definition is a much better indicator of the true unemployment situation in the country. The choice of definition used is extremely relevant to policy decisions as for South Africa, the measures differ widely.

If the labour market conditions are such that workers are sufficiently discouraged to actively search for work, then the unemployment problem is much deeper than that described by the narrow definition and the broad definition should be used. Kingdon & Knight (2001a) find that the non-searching unemployed experience substantially higher levels of poverty and are not significantly happier than the searching unemployed. This reflects severe constraints to employment opportunities for many poor South Africans, especially those living in high unemployment, demand deficient, rural areas. They also find that local wages are more responsive to the broad definition of unemployment than to the narrow definition. This implies that employers take the full pool of unemployed into account when setting wages. These findings support the notion that unemployment is indeed involuntary and that the broad definition is the appropriate tool to be used in policy considerations for the country. Therefore, so as not to underestimate the severity of the country's unemployment problem, the broad definition is used in this report.

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See Kingdon, G. and Knight, J. (2001a,b, c) and Nattrass (2000a) for a discussion of work done on the definition of unemployment in South Africa.
2.4.2 Employment and gender

Employment patterns by gender have also changed quite dramatically over the five-year period. Table 4 indicates the percentage changes in employment and the economically active population (EAP) by gender from 1995 to 1999.

It can be seen that the EAP for both males and females rose significantly over the period. Of particular interest is that female participation has increased by almost twice that of males and by a very large 30%. Box 2 highlights some reasons for this large increase in the female labour force.

The employment figures show that not only did the number of women wanting to work over the period increase, but also that the majority of the new jobs created were taken by women.

How has the economy coped in terms of relative labour market absorption across genders? Figure 7 shows how the large increase in EAP translates into poor labour absorption rates. We see that of every 100 new male entrants from 1995 to 1999, approximately 32 found a job. The figure for females over this period was a slightly higher 37 out of 100.

Once again, the economy's poor labour absorption capacity is simply a predictor of increasing unemployment for both genders, as can be seen in Figure 8.

The number of unemployed males has risen by almost 920 000 over just a five year period and the number of unemployed females has increased by over 1 million. For both genders, the severity of the unemployment problem is clear where the increase in supply has outstripped the increase in demand. The result: 29.7% of all males wanting to work were not able to find it in 1999 and 42.8% percent of females were in a similar dilemma.

2.4.3 Employment and education level

Job creation has also taken place to varying degrees for people with different educational attainment. Figure 9 shows that employment has increased for individuals with all levels of degrees for people with different educational attainment. Figure 9 shows that employment has increased for individuals with all levels of

<table>
<thead>
<tr>
<th>Table 4 Percentage change in Employment and Economically Active Population by Gender, 1995 to 1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Change in Employment</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
</tbody>
</table>

Source: Bhorat (2001)
educational attainment. The greatest percentage increase in employment was for those with a matric certificate and those with primary education with increases of 17% and 16% respectively. The relatively large increase in those employed with primary education is accounted for mainly by increased employment amongst operators and those working in crafts. The increase in employment for those with completed matric is largely due to increases in the number of managers, sales people and elementary workers hired, and to a lesser extent an increase in professionals.

Growth of the EAP, yet again, outstripped employment growth across all education levels (save those with no education). The labour absorption rate indicates that it is those with primary education who fared best over the period, with a 41% probability of finding work given one had entered the labour force. 36% of those new labour market entrants with matric were able to find a job and only 27% of those with incomplete secondary schooling. What is perhaps most surprising and rather worrying, is the economy’s poor performance in the absorption of new labour market entrants with a tertiary qualification. Only 7% of those entering the labour force with a tertiary education between 1995 and 1999 were able to find employment. This seems a peculiar finding indeed - specifically in light of the well known fact that South Africa is currently experiencing a skills shortage in certain professions. Breaking down the tertiary education figures by race helps to clarify this unexpected result.

**Figure 9**

The Percentage Change in the Economically Active Population, Employment and the Labour Absorption Rate by Education Level, 1995 and 1999

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**Box 2: Why More Women Are Wanting To Work**

Most employment increases from 1995 to 1999 can be attributed to increases in the number of females with work. However, most of this rise is in informal sector work which is usually poorly paid and insecure. Together with the rise in employment has been a much more significant rise in the population of economically active females. There are certain characteristics that may help to explain the large increases in women wanting to work, even though the probability of finding work has decreased:

- There were fewer women living with a man of working age in 1999 than in 1995.
- There were fewer women living with an employed man in 1999 than in 1995.
- The percentage of women who were married in 1999 was less than that in 1995.
- Women are significantly more likely to be employed or wanting to work if they are unmarried.
- Education levels of women have shown a definite increase even over the relatively short period of 5 years. Labour force participation of women is positively related to education.
- Societal views on the acceptability of women working may also have changed in favour of female participation. Affirmative action may have played a role here.
- The number of women of working age in the household has a positive and significant impact on female labour force participation. This may be due to the fact that additional women in the house free up time in terms of childcare and the sharing of household chores.
- Where infrastructure has improved, traditional roles of women such as fetching water may have diminished.

The above points suggest that women may no longer be able to rely on more traditional sources of income, either from husbands or due to the fact that a higher proportion of men are unemployed. It appears that the major reason for such a rapid increase in the female economically active population is that women are in a sense being "forced" into the labour market. On the other side of the coin, we see that women are also more likely to be better equipped to enter the work force in terms of attitudes, education, and time availability.

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10This section is largely based on Casale, D and Posel, D. (2001).
amongst those who leave high school before obtaining a matric certificate. There is also a huge pool of unemployed amongst those with no education or only primary schooling. The significant rise in graduate unemployment over the period is also startlingly apparent.

2.5 Relative employment shifts

The above analysis has looked at the extent to which the economy has been able to absorb the increase in labour supply. Examining more closely the reasons for the changes in the demand for labour is crucial if we are to focus our efforts at employment creation realistically and correctly.

On a sectoral level, the demand for labour can be seen as a function of two main factors:

1) **Structural change** in the economy will impact on labour requirements between sectors. As product demand patterns vary, some sectors expand while others contract.

2) **Technological change and business structure changes**, such as the increased preference for capital over labour, affect the quantity and level of skills required within a sector itself.

It is illustrative to decompose the employment changes over the period from 1995 to 1999 in order to determine the magnitudes of both the structural and technological affects.

<table>
<thead>
<tr>
<th>Table 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tertiary Employment Growth by Race, 1995 to 1999</strong></td>
</tr>
<tr>
<td>Race</td>
</tr>
<tr>
<td>African</td>
</tr>
<tr>
<td>Coloured</td>
</tr>
<tr>
<td>Asian</td>
</tr>
<tr>
<td>White</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>


This finding is indicative of a wider problem of skills mismatch in the country. It is recognised that South Africa is skills deficient and requires an increase in access to higher skills levels. It is imperative, however, that new skills acquisition is focused in the areas where needed. The unemployment figures by education drive this point home.

We see that the highest unemployment rate and the fastest growing unemployment is found amongst those who leave high school before obtaining a matric certificate. There is also a huge pool of unemployed amongst those with no education or only primary schooling. The significant rise in graduate unemployment over the period is also startlingly apparent.

**Figure 10**

*The Unemployment Rate by Education Level, 1995 to 1999*

Figure 11a illuminates some interesting facts.

Firstly, it is overwhelmingly the forces of technological change within sectors as opposed to the structural change between sectors that played a dominant role in influencing changing skills requirements across all occupations from 1995 to 1999.

Secondly, we see a relative decrease in the demand for technicians, operators, elementary workers and surprisingly, professionals. Excluding the public sector from these results highlights the great impact its restructuring has had on the labour market.

It can now be seen that it is job attrition in the public sector that accounts for the overall relative decline in demand for professionals and technicians and that this sector has had a profound effect on changing demand patterns from 1995 to 1999. In fact, in the absence of the public sector, the relative demand for professionals exhibits the greatest increase of all occupations.

When considering the demand shifts by race, it is technological advances that dominate for Coloureds, Asians and Whites accounting for between 79 and 96% of the change. For Africans, however, it is structural change that is more important, contributing to 64% of the change in demand. This makes sense as it is Africans who have been most affected by the declining primary and public sectors.

By gender, it is females that have seen a relative change in demand in their favour. It is clear that it is becoming easier for females to more fairly compete for jobs.

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The decrease in relative demand for professionals within community services is actually reflecting the 9% drop in the proportion of professionals in the community services sector as a share of total employment from 1995 to 1999. The shift within the sector should, in fact, be positive with the share of professionals in community services increasing by 7% from 1995 to 1999.
Breaking down the changes in demand by education reveals some interesting trends. Once again, it is technological change that is the main cause of changes in demand. It is those with incomplete high school and completed high school that have reaped the benefits of a relative increase in demand for their labour. This may be due to the boom in microelectronics and the growth of computerisation, which makes it necessary to upgrade skill levels and have a work force comprising an increasing number of semi-skilled computer literate employees.

In terms of relative demand shifts, we see yet again the rather disturbing relative decline in demand for those with tertiary education. Public sector rationalisation has meant that, for example, many teachers have been made redundant. It is apparent that there is a grave skills mismatch in the country, and opportunities now for some groups of degreed individuals are also rapidly diminishing.

Box 3: The Unemployed and the Unemployable

If one looks at the age distribution and duration of unemployment it seems that in the present situation with the huge pool of surplus unskilled labour this country has, that many of those who are jobless have an extremely small likelihood, if any at all, of finding work in the future. OHS 1999 reveals that 75% of the unemployed have never previously had a job and that 39% of the unemployed have been so for more than 3 years, with 29% for between 1 and 3 years. The mismatch between skills demanded and those in supply in the economy is so severe that for the older unskilled labour pool, it is highly unlikely that they will ever be able to find a long-term formal sector job. 56% of the unemployed who are between 35 and 64 have either no schooling or only primary education and only 2% have a tertiary degree. This group of people is largely made up of agricultural and mine workers who lost their jobs over the last few decades. The older unemployed with poor qualifications and living in deep rural areas are in essence unemployable. Given the huge amounts of surplus labour in the economy, upgrading their skills to give them an opportunity to enter the job market is not feasible and would not yield high rates of return.

The unemployed youth possess a different set of characteristics. More than a third of those unemployed who are below the age of 35 have a matric or more. In addition, close to 60% of these individuals live in urban areas where most jobs are found. This segment of the unemployed have better education and better employment prospects than their older counterparts. With skills upgrading and streamlining to better match those in demand, this group has potential to find formal sector work.

Distinguishing between the unemployed in terms of future employability is extremely important in terms of policy implications. For the unemployable, the appropriate policies would be in terms of poverty alleviation whereas for those who have a greater propensity to find employment, the key issues feed back into those of targeted skills development and job creation.
2.6 Key findings

The economy created in excess of 1 million jobs over the 5 years from 1995 to 1999.

This growth in employment was experienced by all the race groups and both genders.

This figure was, however, grossly inadequate to absorb the very large increase in the number of those entering the labour force over the period. The result: increasing rates of unemployment across all races and for both males and females.

The long run trend of a shift towards an increase in demand for more skilled labour as opposed to less skilled labour is reaffirmed within this short run analysis.

Semi-skilled labour has benefited in terms of support staff in the new microelectronics era.

Most of the sectoral shifts in demand can be attributed to technological change and the growth of microelectronics as opposed to structural change between sectors.

Rationalisation of the public sector, currently the country's largest employer, has played a dominant role in affecting employment patterns in the post-apartheid labour market.

There is a massive skills mismatch in the country where a high proportion of labour market participants are unskilled and best equipped to work in the now declining primary sectors. There is also evidence of increasing unemployment among those with tertiary education, even though there are definite occupations where skills are still desperately required.

Examining the age distribution and time frame of unemployment, it appears that a policy of poverty alleviation should primarily be directed at the older group of unskilled unemployed and that a policy of education and skills development should be implemented with respect to the more highly educated, largely urban-based unemployed youth.
The analysis in section 1 gives us a good idea of how the labour market has moved in the 5 years after the political transition in South Africa. The message that is startlingly clear is that it is essential to mobilise the large numbers of unemployed and to harness their productive capacity. Section 2 looks more closely at the labour force in terms of earnings, poverty and inequality and the role of trade unions.

3.1 Wages trends between 1995 and 1999

When analysing employment trends, it is useful to consider the role of wages and how these are both influenced and influence the demand and supply of labour. Owing to the different structure of questions in the 1995 OHS and 1999 OHS, it is necessary to compare wages in income bands using cumulative earnings distribution functions, rather than being able to compare precise numbers.

The graphs below examine, by race, the share of individuals falling into one of 3 income categories, and how this changed from 1995 to 1999.

Figure 13 (a) shows, for example, that in 1995, 30% of all employed Africans earned an income below R1001 and that 96% of Africans earned less than R6001 per month. This changed quite dramatically in 1999 when the share of Africans earning less than R1000 p/m rose to 49%. This pattern is replicated across the races with all race groups having a higher proportion of the employed earning less in 1999 than in 1995. For Whites, the proportion earning less than R1001 p/m increased from 3% to 7% over the period, while the

**Figure 13**

Wage Trends by Race for 1995 and 1999

proportion earning in excess of R6000p/m decreased from 39% to 30%. Nevertheless, it is still unsurprisingly Whites that have the greatest proportion of workers earning the highest wages followed by Asians and lastly, closely together, Coloureds and Africans.

The data, albeit imperfect, does suggest that in terms of real earnings, all the race groups were worse off in 1999, relative to 1995. This implies that the incidence of poverty in the country is not decreasing. The difference in earnings between, as well as within, the race groups is also a major driver of inequality.

Table 6 shows the incidence of household poverty and inequality that once again emphasises the need to increase employment opportunities in an attempt to bring both people above the poverty line, as well as decrease the exceptionally high levels of inequality that currently exist.

The Gini Coefficient is a measure of inequality that falls between the values of zero and one. The closer to one, the higher the level of inequality. South Africa and Brazil rank as the countries with the highest levels of inequality in the world. By international comparison we see that middle-income countries such as Malaysia, Poland and Thailand have a far more egalitarian distribution of income. Examination of the Gini by race highlights the fact that it has been the growing inequality within the race groups (particularly African) that has been responsible for the high inequality levels of the past being maintained. Male-headed households experience higher levels of inequality than female-headed households with a very high Gini of 0.601.

The Headcount Index (P0) is a poverty measure that indicates the percentage of households living below the poverty line. The measure indicates that in 1999 a total of 32.02% or 3.7 million out of 11.4 million households in South Africa were living in poverty. In race terms, Africans were by far the worst affected with 38.2% of households living below the poverty line followed by Coloureds with a still high 21.5%. Whites and Asians had a relatively low incidence of poverty of 3.0 and 3.7% respectively. Female-headed households proved exceptionally vulnerable to living in poverty with an incidence in excess of 43%.

High levels of poverty result from low real wages and high unemployment. The South African economy is currently characterised by a large excess labour supply and increasing trade liberalisation and globalisation. Both these factors are likely to cause downward pressure on wages. On the other hand, skills shortages and union power in some sectors can have the opposite effect of maintaining real wage levels or even pushing them upwards.

<table>
<thead>
<tr>
<th>Category</th>
<th>Gini (inequality)</th>
<th>Headcount (P0) (Poverty)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>0.603</td>
<td>32.02</td>
</tr>
<tr>
<td>African</td>
<td>0.531</td>
<td>38.22</td>
</tr>
<tr>
<td>Coloured</td>
<td>0.491</td>
<td>21.51</td>
</tr>
<tr>
<td>Asian</td>
<td>0.484</td>
<td>3.73</td>
</tr>
<tr>
<td>White</td>
<td>0.494</td>
<td>3.03</td>
</tr>
<tr>
<td>Male</td>
<td>0.601</td>
<td>26.39</td>
</tr>
<tr>
<td>Female</td>
<td>0.523</td>
<td>43.52</td>
</tr>
<tr>
<td><strong>International Estimates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>0.63</td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td>0.48</td>
<td></td>
</tr>
<tr>
<td>Poland</td>
<td>0.27</td>
<td></td>
</tr>
</tbody>
</table>

*Calculated from the IES 1999.*

*This section is drawn from Bhorat, 2001. The poverty line used here is R903 per household per month in 1995 real terms.*
African and White union and non-union members in 1997. It can be seen from Table 7 that there is a pronounced union differential for Africans, with union members earning on average approximately 1.8 times that of non-unionised workers. The actual union wage premium has been estimated by a number of researchers and is placed at somewhere between 10 and 100%. The most recent work sets the premium at about 20% indicating that a non-union member with the same characteristics as a union member (for example, with the same skill and occupation) would earn 20% less. Evidence of such a wage premium has a number of implications:

3.2 The role of trade unions in terms of wages and employment

Trade unions played a key political role in South Africa in the past and have retained their influence in the post-apartheid labour relations environment. Figure 14 shows the rate of unionisation across race and gender, and how this changed from 1995 to 1999.

In developing countries, the average rate of unionisation is approximately 18%, whereas in the OECD countries, it is a much higher 43%\(^1\). In South Africa in 1999, total union membership stood at over 3 million with a unionisation rate of 33.7%. The rate of unionisation increased by a mere 0.1% over the 5 year period from 1995 to 1999. The unionisation rate for both Africans and Females actually declined while that for Whites increased by more than 6%. **But how much power do the unions actually have, and what impact does this have on wages and employment levels?**

Table 7 shows average hourly earnings for African and White union and non-union members in 1997. It can be seen from Table 7 that there is a pronounced union differential for Africans, with union members earning on average approximately 1.8 times that of non-unionised workers. The actual union wage premium has been estimated by a number of researchers and is placed at somewhere between 10 and 100%. The most recent work sets the premium at about 20% indicating that a non-union member with the same characteristics as a union member (for example, with the same skill and occupation) would earn 20% less. Evidence of such a wage premium has a number of implications:

Unions have helped decrease the racial wage differential between White workers and African unionised workers.

It is indicative of a fair amount of union power in wage negotiations.

It also has implications of effectiveness of industrial council extensions where there appears to be a divide between the formal sector where bargaining council extensions often apply, and the informal sector where they do not.

It is possible that high union wages result in a certain number of workers being displaced from their jobs, thus contributing to the unemployment problem. This is however a highly contentious issue and does not necessarily mean that cutting wages would lead to increases in employment. The reverse argument is usually stronger, that is, increasing wages has a higher probability of leading to

### Table 7: Average Hourly Net Earnings (R/Hr) by Population Groups and Union Status, 1997

<table>
<thead>
<tr>
<th></th>
<th>African Workers</th>
<th>White Workers</th>
<th>Ratio of White: African</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union members</td>
<td>11.6</td>
<td>25</td>
<td>2.24</td>
</tr>
<tr>
<td>Non-union members</td>
<td>6.2</td>
<td>27.4</td>
<td>4.4</td>
</tr>
<tr>
<td>Total sample</td>
<td>8.2</td>
<td>26.7</td>
<td>3.3</td>
</tr>
<tr>
<td>Ratio of unionised:non-unionised</td>
<td>1.8</td>
<td>0.9</td>
<td></td>
</tr>
</tbody>
</table>

Source: Rospabé, S (2001).\(^2\)

Note: Computations based on data from OHIS 1997.\(^3\)

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\(^1\)Based on a study by Salmon drawn from Rospabé, S (2001).

\(^2\)Computations based on data from OHIS 1997.

unemployment. Although reducing wages could have an effect, there are counter possibilities such as increased labour unrest and further drops in labour demand.

The case of extension to non-union parties could also exacerbate the unemployment problem. Specifically in South Africa, extension takes place if the bargaining process is "sufficiently representative". It is often then large firms with high union representation that "set" the wages for all firms in the formal sector of an industry. This can have a negative impact on small firms that cannot afford to pay such packages\(^{17}\). Larger, more capital intensive firms with higher labour productivity can then eliminate lower paying more labour intensive competition. The nature of production then becomes more capital intensive and employment is sacrificed\(^{18}\).

Figure 15 shows that there has been an increasing number of mandays lost due to strike action over the 5-year period (apart from 1997), with a high of 3.1 million in 1999.

The increasing number of workdays lost to striking is another pointer to union power and increased dissatisfaction relating to low wage increases that are primarily the result of a struggling economy. The industrial council system and wage data suggests that the overall impact of unions is to benefit those workers in formal sector employment by maintaining or raising real wages, but that this may negatively impact on informal sector wages as well as be yet another factor that contributes to the unemployment problem.

![Figure 15](image)

**Figure 15**

*Number of Mandays lost due to Strike Action, 1995 and 1999*


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**Box 4: The nature of employment contracts**

The type of contracts workers hold impacts on their security and are affected by job market conditions such as globalisation and more rigid labour laws.

Figure 16 illustrates the nature of employment contracts held by workers in South Africa in 1999. We see that most workers (78%) are permanently employed. A further 16% of the workforce fits into the temporary and casual categories. Although we do not have comparable data from the OHS 1995, the *World Bank Large Firm Survey* suggests that there is a move to increased outsourcing and non-permanency. The occupations that currently have the highest percentage of part-time: full-time workers are unskilled labour followed by clerical and sales people. Businesses have stated the chief reasons for this trend as an attempt to boost labour productivity and focus on core business practices. Increases in subcontracting often mean that a firm does not need to deal with unions and that the subcontractor's insecurity is increased in terms of both lower wages or benefits and labour legislation cover.

![Figure 16](image)

**Figure 16**

*Types of Employment Contracts in 1999*

Source: OHS 1999.

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\(^{17}\)Firms that cannot afford to implement union bargaining wage deals could apply for exemption from the extension of BC agreements. In 1994/1995, 8% of firms that were covered by BC agreements had received partial or full exemptions. The granting of exemptions seems, however, to occur mainly in cases in which a high percentage of the firm's business is not conducted in the given industry or where, for example, firm level benefits already exist. There is an obvious tension between large and small firms in the potential scenario of exemptions being granted on wage related grounds where small employers could then pay lower wages and hence are seen by larger firms as being "unfairly competitive" (See Stapelberg, 1999).

Two channels that were earmarked as having the potential to generate significant employment post-apartheid were the development and growth of the SMME sector, as well as, increased penetration of locally produced products in the international market. How the SMME sector and international trade have contributed to employment creation remain two grey areas of labour market enquiry.

4.1 SMMEs and the informal sector
From the mid 1990s, it was believed that a key area for potential employment growth was that of the growth and development of SMMEs. The hope was that, especially young African entrepreneurs, would take advantage of a more free and flexible labour market which would result in a burgeoning SMME sector.

This ideal has not, however, come to fruition. A World Bank Survey of 800 SMMEs interviewed in the Johannesburg area in 1999 clarifies how the SMME sector has developed and who has been the most effected.

The World Bank Report considers the success of SMME development in terms of both increases in investment and employment creation. The survey finds that aggregate employment increased from 9,400 jobs in 1997 to 11,600 in 1999, a rise of 23%. Looking inward, however, does not reveal such a promising story. SMMEs have a particularly high turnover so that what looks like employment creation may actually just be new firms coming into existence which have a high probability of not surviving into the next year. After controlling for this fact by only considering firms that had been in existence for at least 3 years, the results look quite different with employment actually declining by 7%. All production sectors and construction experienced net losses. Increases in employment were nevertheless apparent in the retail (10%), IT (25%) and tourism (9%) sectors.

Breaking down the picture further according to race we see the following: by far the majority of SMME owners are White. African owners account for only 7% of the total.

![SMME Ownership by Race, 1999]

The age structure of the SMMEs as shown in Figure 18 also reveals the lacklustre path their development has taken. Only 30% of the SMMEs were post-apartheid and only 13% of these were African-owned. This figure does, however, account for 60% of African SMME ownership so that even though the absolute figures are low, at least the percentage of African owners has risen quite substantially.

Why has SMME growth been so poor?

Skills are important to SMME development and black entrepreneurial capital is limited.

Over 70% of SMME owners had had a formal sector job prior to opening their own business and had then taken advantage of a business opportunity. Joining a family business and coming with the necessary skills from another country accounts for another 15%. Less than 5% of owners had been unemployed for a long period of time.

For African SMMEs, lack of collateral and inadequate access to credit make it more difficult for them to borrow to start a business.

Apart from the abovementioned skills shortages the major constraint to employment growth in the SMME sector, as is the case with the employment creation in general in the economy, has been poor economic growth or deficient demand.

With formal sector employment opportunities severely constrained in South Africa, one would also look to the informal sector to provide a mass of much needed jobs. This however has not been the case and South Africa, given its formal sector job creation problems, has in fact a relatively small and poorly developed informal sector.

In 1993, formal sector employment accounted for 50% of the labour force, informal sector employment for 19% with the remainder being unemployed. The ratio of informally employed to formally employed is about 28%. This does not compare well with countries like India where the same proportion is a much higher 90%.

It seems apparent that as for SMME development, there are very real constraints to entering the informal sector in South Africa, and that this sector has failed to absorb sufficiently the increase in labour supply and the employment growth needs the country is experiencing.

**FIGURE 18**

*The Age Structure of SMMEs in 1999*


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4.2 How has international trade impacted on employment?

One of GEARs approaches to employment creation was the promotion of export led growth. The country underwent extensive trade liberalisation in the 1990s with the number and types of barriers to trade being significantly rationalised and reduced. As South Africa becomes increasingly integrated into the world economy, so our labour market is increasingly affected by international economic conditions.

But has increased international trade had a positive impact on the South African labour market?

Trade increases the demand for domestic labour through increases in exports, and decreases local labour demand through rising import substitution. Relative wages are also important in this scenario in which inflexible labour markets can result in increases in unemployment. If wages are not in line with productivity levels, trade liberalisation can lead to unemployment as firms are forced to become competitive on a world scale, often resulting in labour shedding. Ideally, the structural adjustment that comes with opening up the economy should be short term where those who lost jobs from noncompetitive industries can find new jobs in the expanding export sector.

On a global scale a pattern of comparative advantage has been established with low wage, low-skill, high surplus labour economies producing low productivity goods on one end and high wage highly-skilled labour producing and innovating high productivity goods on the other end. This poses a problem for South Africa which is a middle-income country that does not have either the superior skills or low enough wages to fit into either group.

What is rather disturbing, and indicative of the "middle income trap" in which the country finds itself, is South Africa's ranking in the World Competitiveness Yearbook of 1999. In terms of labour market indicators, South Africa ranks lowest or second lowest out of 47 countries in the categories of literacy, skilled labour availability, the brain drain, the educational system, teacher pupil ratios and the youth interest in science and technology.

Globally, South Africa cannot compete with the huge unskilled labour economies such as India and China. With rising international trade our exports have become increasingly skill and capital intensive and imports increasingly labour and ultra labour intensive.

Attempting to isolate the net impact of trade on labour is exceptionally difficult, however, due to a multitude of integrated factors influencing the labour market, such as final demand and technological change. The indirect effects trade has on input-output industries along the value chain also need to be taken into account in order to get an accurate picture of trade's total impact. It is also extremely difficult to quantify the role of international trade in terms of technological spillover and innovation.

Table 8 indicates his findings:

<table>
<thead>
<tr>
<th>Year</th>
<th>Exports</th>
<th>Imports</th>
<th>Net trade</th>
<th>Final Demand</th>
<th>Technology</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984-88</td>
<td>2.6%</td>
<td>-0.57%</td>
<td>2.03%</td>
<td>4.25%</td>
<td>-6.1%</td>
<td>0.22%</td>
</tr>
<tr>
<td>1988-93</td>
<td>-0.67%</td>
<td>-1.04%</td>
<td>-1.91%</td>
<td>-4.63%</td>
<td>-0.32%</td>
<td>-6.56%</td>
</tr>
<tr>
<td>1993-97</td>
<td>5.28%</td>
<td>-4.32%</td>
<td>0.96%</td>
<td>10.23%</td>
<td>-14.82%</td>
<td>-3.63%</td>
</tr>
</tbody>
</table>


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22 This is one of the most comprehensive studies of the impact of international trade on the South African Labour market to date and includes input-output effects. It is, however, necessary to caution on these results. The problem with assessing the impact of trade is that there is, as yet, no established methodology that is not open to a variety of measurement difficulties. Owing to this, it is not yet possible to say with much confidence what the effect has actually been.
It is found that technological change and demand conditions are the dominant causes of changes in employment in the economy. **Trade does have an effect, but in comparison this is relatively small.** In the period from 1993 to 1997, exports increased employment by 5.28% and import substitution decreased employment by 4.32%. The result was a small, positive net impact on employment of 0.96%.

This indicates that there are poor employment generating prospects associated with international trade. It must be noted however; that trade has not had net effects of raising unemployment.

Even though the overall effect of international trade may be relatively small, the trend in terms of demand for skills is intensified with increased globalisation. It is yet again the elementary and unskilled workers that suffer a decrease in employment, and the skilled workers that gain. The original hope that increased export orientation would lead to large increases in employment has not been fulfilled, and it appears that in the future trade will play an exceptionally limited role in this regard.

### Box 5: The winners and losers from international trade

Even though the net effect has been small, there have been clear winners and losers. Focusing on the 1993 to 1997 period:

- **Ultra labour intensive sectors** have suffered under poor export growth and high import penetration.

There has been a rise in the capital intensity of net trade. This, however, may largely be due to past protection, government policy and subsidisation of capital-intensive industries, as opposed to trade liberalisation.

There is a strong relationship between export growth and skill intensity for 1993 to 1997. This indicates that it is the move away from ultra labour intensive exports that is dampening the economies capacity to create jobs through increased trade. Skilled workers have benefited from increased trade but unskilled workers have suffered.

- **Manufacturing has shed elementary workers** in its orientation towards export markets.

**Strong agricultural growth** has been employment generating for agricultural elementary workers. This is very important in light of strong declines in employment in agriculture. This means that without rising international trade, the fate of agricultural workers could have been even more severe.

Current and Future considerations:
Migration and the HIV/AIDS Pandemic

We have now considered the labour market in terms of employment, wages and two areas of industrial policy it was felt would be employment generating in the post-apartheid economy. The final section deals with two broader issues that are having an impact on labour supply and skills in the economy, and are expected to become even more important over the next 10 years. This section deals firstly with migration and thereafter with the HIV/AIDS pandemic.

5.1 Migration

Even in the face of a massive unemployment problem, South Africa is experiencing a skills shortage. This is a major cause for concern for the future development of the country and all possible reasons for the scarcity in skills should be explored. One of the more worrying features of the skilled labour force dynamic, is that those who obtain high levels of qualifications appear to have a high propensity to leave the country. This means that even if access to higher education is broadened and improved, we may detect our skills leaving as quickly as they are developed.

It is imperative to try to quantify the so-called "brain drain" so that one has an accurate picture of which skills are being lost and of how severe the problem actually is. Developing precise estimates of emigration is, however, a particularly difficult task as a large percentage of those leaving the country do not state that it is on a permanent basis.

In fact, STATS SA emigration figures based on those who declare themselves as emigrants when leaving the country have been shown to grossly underestimate the numbers of actual emigrants. Meyer, Brown and Kaplan (MBK) conducted a study in 2000 which uses both local information and that from the five main receiver countries of South African immigrants for the period from 1989 to 1997. The countries considered were the United Kingdom, United States of America, Canada, Australia and New Zealand.

Foreign data on immigration status is often more reliable than the South African data: People have different incentives to reveal their true intentions when leaving one country and entering another. It is also extremely difficult to enter the abovementioned countries illegally through airports. In addition, when highly skilled professionals move to a new country, the type of work they are seeking will generally require an official work permit.

There is a proportion of emigrants that will not be captured by the recipient countries. This will comprise those who enter under temporary circumstances that only later acquire the necessary work and residency permits to stay. The MBK study does not include these people but considers only official permanent immigration.

Beware of official estimates

 Estimates of the highly skilled are divided into Professionals; "professionals, semi-professionals and technical occupations" and "Managers"; "managerial, executive and administrative". The reconstructed figures developed from the recipient country data highlight how low the STATS SA figures are and how cautious one must be when interpreting them.

Figure 19 shows that over 233,000 people have emigrated from South Africa over the 11 years from 1987 to 1997. This is 2.8 times the statistics presented by STATS SA. What is also striking to note is that net migration has been negative over the period with a net loss of
137 626.

We now look more closely at the number of highly-skilled who have left the country over the period, and divide the period into the time before and after the political change.

Figure 20 shows that South Africa has lost in total over 41 000 highly skilled professionals over the 9 year period. The number who left in the four years post-apartheid is 16% higher than the those who emigrated in the four years prior to its dismantling. These figures do not include managers.

It is also calculated that approximately 50% of the economically active population that left the country over the period were professionals, 20% of leavers are estimated to be managers and the remaining 30%, non-highly skilled. This infers that the total of highly skilled leavers is closer to 26 000 for 1989-1993 and 31 000 for 1994 to 1997. A large proportion of those who have emigrated are engineers, doctors, nurses and teachers.

A number of policy implications can be drawn from the above figures.

Actual figures appear to be about 3 times greater than official statistics which indicates a much more severe problem than previously suggested.

There does not appear to have been a much larger number of skilled persons leaving the country in the period immediately after political transformation than there was in the period just before. (This is not necessarily the case, however, for 1997 to 2001.)

A key problem with the number of skills leaving is that they are not being replaced by similarly qualified immigrants. It is apparent that the even though the country faces an employment crisis, it is also facing a skills shortage. We will need to attract the skills necessary for development and make it possible for potential immigrants to enter the country more easily in the future. The rest of the continent offers a promising source of skilled labour.
5.2 Impact of HIV/AIDS on the labour market

One of the greatest health, economic and development challenges presently facing South Africa is the HIV/AIDS pandemic. UNAIDS (2000) figures estimate the number of people living with HIV/AIDS in South Africa at the end of 1999 as approximately 4.2 million. It is projected that deaths due to AIDS will exceed 6.4 million by 2010. (ASSA600 and UN models\(^{23}\)). HIV/AIDS is rapidly changing the pattern of death by age and gender. It is strikingly evident that the pandemic is having a major impact on the population and this trend will intensify and worsen over the next 10 years. Apart from infant deaths resulting from mother to child transmission, AIDS deaths predominantly affect those in the age group from 25 to 50. (ING Barings, 2000) Life expectancy is projected to drop from 55 in 2000 to about 40 in 2010 (ASSA600 and Metropolitan Models\(^{24}\)). The direct and indirect effects on the economy and the labour force will be significant and severe in terms of both supply and demand\(^{25}\).

HIV/AIDS impacts on the supply of labour in the following ways:

- Increased mortality with a significant decrease in life expectancy
- Declines in fertility lead to even larger population declines
- Higher absenteeism due to illness and funeral attendance
- Loss of work experience and accumulated knowledge
- Increased training costs and high labour turnover/ replacement

Combined this leads to decreases in labour productivity.

It is important to note that the disease is not projected to affect all members of society to the same degree: Focusing on the labour market, Figure 22 reveals the projected deaths by skills category for 1999 to 2010. Semi-skilled and unskilled workers show peak infection rates 3 times that of highly skilled workers. Even so, highly skilled labour will still be significantly affected and it is forecast that the infection rate for this group will peak at 13.1% in 2005. The epidemic is expected to exacerbate the country's skills shortage problems even further\(^{26}\).

The infection rate for the total population is projected to peak at approximately 16.7% in 2006. For the economically active population this peak is a much higher 25.5%. This will have a major impact across all sectors of the economy, even though industries will be affected to a varying degree.

![FIGURE 22](Projected AIDS Deaths per 100 Workers by Skills Category, 1999 to 2010)


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\(^{23}\) As cited in Dorrington (2001)

\(^{24}\) As cited in Dorrington (2001)

\(^{25}\) A preliminary study of the macroeconomic implications of HIV/AIDS in South Africa and on the labour market was undertaken by C. Arndt and J. D. Lewis and published in the South African Journal of Economics, December 2000. The discussion in this section is drawn from this study which uses data from demographic work summarised in two reports produced by ING Barings in 1999 and 2000.

\(^{26}\) ING Barings (2000).
Considering HIV prevalence rates per 100 workers reveals the following picture:

It can be seen that mining is expected to be the most severely knocked with HIV prevalence rising to over 26% in 2010. This is followed by general government with prevalence of 26%. Construction, agriculture, manufacturing, catering/ accommodation and transport are also expected to be particularly hard hit with rates between 23.4 and 22%.

The structure of the economy and demand conditions will also change dramatically:

GDP will shrink due to significant increases in mortality resulting in fewer factors of production, less investment and savings, and lower and changing demand

There will be switches in demand towards increased spending on medical supplies

Capital will be substituted for increasingly less productive labour

What will be the overall impact on unemployment? As there is a large pool of unskilled labour and HIV prevalence is the highest amongst this group, one might expect that the unemployment rate would actually drop as a result of the increase in mortality. It has been calculated, however, that the decrease in supply of labour will be outweighed by the diminished demand effect of the smaller economy. In other words, the HIV/AIDS pandemic is expected to lead to a further increase in unemployment. The increase is expected to be small, but the message is clear: Apart from the numerous other effects HIV/AIDS will have on society and the economy, it is also expected to exacerbate South Africa's unemployment problem.

Box 6: Another way of looking at industry risk

The ING Barings Report (2000) calculates a composite index to reflect the risk to industries in terms of increased labour costs due to HIV/AIDS as well as HIV prevalence. On the one hand, the industries are ranked according to the proportion that the skilled and highly skilled comprise of the wage bill. The higher this percentage, the more at risk the industry is seen to be in terms of costs of worker replacement, training and benefits. On the other hand, the industries are ranked according to HIV prevalence. To calculate the composite index, the HIV prevalence rank is weighted by 60% and the skill intensity rank by 40%. Although this is exceptionally rudimentary analysis, an interesting picture emerges.

According to the composite index, it is the transport and catering/ accommodation industries that are the most at risk to HIV/AIDS in terms of both labour force effects and cost effects. This is followed by general government and mining. It is interesting to note that both finance and business are not at the bottom of the ladder in this ranking system as they are expected to suffer significantly in terms of increased labour costs due to their heavy reliance on highly skilled labour.
Conclusion

This report has attempted to create a picture of the current South African labour market situation and how it has changed in the post-apartheid era.

Although the country experienced an increase in employment of approximately 12% in the five years from 1995 to 1999, this was wholly inadequate to absorb the already large number of unemployed, as well as the substantial numbers of new labour market entrants. The result has been high and rising unemployment and ever deepening incidences of poverty.

In terms of employment, we see a relative decline in the share of the primary sectors, manufacturing and community services. It is the rationalisation of the public sector, the country's largest employer, that has had a major impact on patterns of labour demand and been responsible for significant job losses. The main growth areas have been finance, trade and construction.

In terms of skills, the country is experiencing skill biased technological change, mainly due to the growth of microelectronics and new advanced production methods. Consequently, the relative demand for skilled and highly skilled workers has been increasing but at the expense of low skilled and elementary workers. Exports, too, have become increasingly skill and capital intensive, thus contributing further to the increased demand for skilled labour.

One of the key challenges for the economy is to be able to match the increase in demand for highly skilled with an adequate supply. It is apparent, however, that even in the face of rising unemployment amongst those with a tertiary education, the country does not possess the necessary expertise. There is a gross mismatch between the skills the population hold and those that are required.

The situation is exacerbated by the emigration of many of our highly skilled professionals and is projected to further worsen with the increasing impact of HIV/AIDS. It is therefore imperative to establish which skills are required and to train people accordingly.

The trials with which the South African labour market is confronted are both large and wide-ranging. Intervention will necessarily take the form of an integrated approach that includes policies on skills acquisition, health, poverty alleviation and employment creation. It is essential that we develop clear and targeted strategies if we are to be effective and efficient in our efforts to create employment and harness the country's true productive potential.
References


The World Competitiveness Yearbook, (1999), IMD, Switzerland.
### Appendix of Employment Levels

#### Levels and Changes in Employment by Sector, 1995 to 1999

<table>
<thead>
<tr>
<th>Sector</th>
<th>1995</th>
<th>1999</th>
<th>Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>1 184 712</td>
<td>1 145 315</td>
<td>-39 397</td>
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</tr>
<tr>
<td>Mining</td>
<td>432 857</td>
<td>478 120</td>
<td>45 263</td>
<td>10.5</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1 420 956</td>
<td>1 515 456</td>
<td>94 500</td>
<td>6.7</td>
</tr>
<tr>
<td>Utilities</td>
<td>84 041</td>
<td>78 482</td>
<td>-5 559</td>
<td>-6.6</td>
</tr>
<tr>
<td>Construction</td>
<td>433 492</td>
<td>569 689</td>
<td>136 197</td>
<td>31.4</td>
</tr>
<tr>
<td>Trade</td>
<td>1 650 017</td>
<td>2 108 888</td>
<td>458 871</td>
<td>27.8</td>
</tr>
<tr>
<td>Transport</td>
<td>469 200</td>
<td>543 093</td>
<td>73 893</td>
<td>15.7</td>
</tr>
<tr>
<td>Financial</td>
<td>582 897</td>
<td>940 509</td>
<td>357 612</td>
<td>61.4</td>
</tr>
<tr>
<td>Community services</td>
<td>2 952 269</td>
<td>2 988 622</td>
<td>36 353</td>
<td>1.2</td>
</tr>
<tr>
<td>Unspecified</td>
<td>186 601</td>
<td>160 515</td>
<td>-26 086</td>
<td>-14.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>9 397 042</td>
<td>10 528 689</td>
<td>1 131 647</td>
<td>12.0</td>
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#### Economically Active Population by race for 1995 & 1999

<table>
<thead>
<tr>
<th>Race</th>
<th>1995</th>
<th>1999</th>
<th>Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>African</td>
<td>9 450 167</td>
<td>12 017 705</td>
<td>2 567 538</td>
<td>27.2</td>
</tr>
<tr>
<td>Coloured</td>
<td>1 432 142</td>
<td>1 694 380</td>
<td>262 238</td>
<td>18.3</td>
</tr>
<tr>
<td>Asian</td>
<td>405 701</td>
<td>495 518</td>
<td>99 817</td>
<td>22.1</td>
</tr>
<tr>
<td>White</td>
<td>1 992 851</td>
<td>2 192 132</td>
<td>199 281</td>
<td>10.0</td>
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#### Employment by race 1995 & 1999

<table>
<thead>
<tr>
<th>Race</th>
<th>1995</th>
<th>1999</th>
<th>Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>African</td>
<td>6 033 411</td>
<td>6 771 254</td>
<td>737 843</td>
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<tr>
<td>Coloured</td>
<td>1 114 855</td>
<td>1 297 519</td>
<td>182 663</td>
<td>16.4</td>
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<tr>
<td>Asian</td>
<td>351 305</td>
<td>396 196</td>
<td>44 890</td>
<td>12.8</td>
</tr>
<tr>
<td>White</td>
<td>1 897 469</td>
<td>2 046 283</td>
<td>148 814</td>
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#### Unemployment levels and rates by race for 1995 and 1999

<table>
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<th>Unemployment rate</th>
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<td>1999</td>
</tr>
<tr>
<td>African</td>
<td>3 416 756</td>
<td>5 246 451</td>
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<td></td>
<td>Change</td>
<td>1 829 695</td>
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<td></td>
<td>36.2</td>
<td>43.7</td>
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<td></td>
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<td>Change</td>
<td>22.2</td>
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<td></td>
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<tr>
<td>Asian</td>
<td>54 395</td>
<td>99 322</td>
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<tr>
<td></td>
<td>Change</td>
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<tr>
<td>White</td>
<td>95 382</td>
<td>145 849</td>
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<tr>
<td></td>
<td>Change</td>
<td>50 467</td>
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<tr>
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<td>6.7</td>
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#### Economically Active Population by gender for 1995 & 1999

<table>
<thead>
<tr>
<th>Gender</th>
<th>1995</th>
<th>1999</th>
<th>Change</th>
<th>% Change</th>
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</thead>
<tbody>
<tr>
<td>Male</td>
<td>7 326 553</td>
<td>8 685 720</td>
<td>1 359 167</td>
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<tr>
<td>Female</td>
<td>5 954 308</td>
<td>7 727 441</td>
<td>1 773 133</td>
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#### Employment by gender for 1995 & 1999

<table>
<thead>
<tr>
<th>Gender</th>
<th>1995</th>
<th>1999</th>
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</thead>
<tbody>
<tr>
<td>Male</td>
<td>5 665 693</td>
<td>6 105 337</td>
<td>440 644</td>
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</tr>
<tr>
<td>Female</td>
<td>3 732 349</td>
<td>4 416 380</td>
<td>684 031</td>
<td>18.3</td>
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</table>

#### Unemployment levels and rates for 1995 & 1999

<table>
<thead>
<tr>
<th>Gender</th>
<th>Unemployment</th>
<th>Unemployment rate</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>1995</td>
<td>1999</td>
</tr>
<tr>
<td>Males</td>
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</tr>
<tr>
<td></td>
<td>917 523</td>
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<td>7.0</td>
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<tr>
<td>Females</td>
<td>2 221 959</td>
<td>3 311 061</td>
</tr>
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<td></td>
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