The Post-Apartheid Labour Market: 1995 -2004

Morné Oosthuizen
Development Policy Research Unit
University of Cape Town
moosthui@commerce.uct.ac.za

Abstract

This paper seeks to investigate some of the changes that have occurred within the South African labour market in the post-apartheid era between 1995 and 2004 and some of the challenges the labour market presents in the attainment of shared growth, updating previous work by Bhorat and Oosthuizen (2004). The two main sources of data are the October Household Survey of 1995 and the Labour Force Survey of September 2004. The paper has found that while the unemployment rate has risen over the period, total employment has increased, bringing into question the notion of jobless growth. Unemployment, however, continues to be concentrated in specific demographically and geographically defined groups, most notably rural dwellers, Africans, females, the poorly educated and the young and, for many, represents a long-term problem. Disturbingly, unemployment has continued to grow rapidly amongst relatively educated members of the labour force, despite the skills shortage faced by the country. An individual's probability of being employed is found to depend on his or her race, gender, age, location and level of education. However, it appears that gender plays less of a role in determining the probability of employment in 2004 than in 1995, although this is not true of race.

Development Policy Research Unit

Tel: +27 21 650 5705
Fax: +27 21 650 5711

Information about our Working Papers and other published titles are available on our website at:

http://www.commerce.uct.ac.za/dpru/

Table of Contents

1. Introduction

The performance of the South African labour market holds the key in many ways to the success of government strategies aimed at raising incomes and reducing poverty and inequality. These aims, however, cannot be attained via the labour market without employment growth, which in turn requires significant output growth in the broader economy. Employment growth has been one of the top items on the national agenda for a considerable amount of time, particularly since the country's first multiracial elections in 1994. It is within this context that the Government's macroeconomic plan, unveiled in 1996, and named "Growth, Employment and Redistribution" (or GEAR) predicted, amongst other things, employment growth averaging 270 000 jobs per annum from 1996 to 2000, with 409 000 jobs to be created in 2000 alone (National Treasury 1996).

At the same time, numerous significant policy changes aimed at, amongst others, addressing past injustices and neglect and improving competitiveness as the national economy became increasingly integrated into the international economy. For a variety of reasons, many of GEAR's projections were not realised. In fact, in terms of the labour market, the experience of the second half of the 1990s appears to have fallen short of even the baseline scenario contained in the GEAR document, which projected a net increase in (non-agricultural formal) employment of slightly more than 100 000 jobs per annum. Thus, despite the fact that the economy has been growing and jobs have been created, unemployment, however it is defined, has continued to rise.

The optimism of the mid-1990s was therefore followed by disappointment, as post-*apartheid* economic growth was termed "jobless growth", and the labour market and policies that affect it have come under increased scrutiny. Recently, there also appears to be a growing emphasis on ensuring that growth is shared. Shared growth entails a process of economic growth that is beneficial to all groups in society, which is considered essential for sustaining growth through improved 'buy-in' from all sectors of society. Thus, while "political elites [foster] growth by encouraging high savings, long term investments, and upgraded organisation, technology and management", the process of shared growth requires that "highly visible wealth sharing mechanisms – such as universal primary education, land reform, and free basic health care – [are] put in place to induce non-elites to support the growth process" (Page 2004: 13). However, ensuring that the benefits of growth are shared is not an easy task, particularly where the labour market, which constitutes the primary interface between individuals and households on the one hand and the macroeconomy on the other hand, suffers from severe distortions, as is the case in South Africa.

This paper's chief objective is the analysis of some of the changes in the South African labour market in the post-*apartheid* era and the challenges the labour market presents in the successful attainment of shared growth. Section 2 looks at the labour force, quantifying employment, unemployment and thereby the labour force. The first part of the section places employment trends within the context of economic growth, rejecting the jobless growth

characterisation of recent economic performance. The section then describes some of the main characteristics of the labour force and details changes in the labour force participation rates of various groups. In section 3, employment is analysed, with reference specifically to sector, occupation, skills and education, and location, while section 4 focuses on the characteristics of the unemployed, as well as the households in which they find themselves. Finally, section 5 presents a multivariate analysis of labour force participation and employment, using several of the variables used in the descriptive analysis.

2. The South African Labour Force

2.1 Growth and Employment Trends: Have We Experienced Jobless Growth?

The labour market is one of the critical interfaces through which individuals interact with the broader economy. Furthermore, its performance directly impacts on poverty and inequality via employment and incomes. Consequently, good, or poor, economic performance will largely affect poverty and inequality within a society by impacting on employment. The relationship between economic performance, specifically economic growth, and employment, therefore, is a critical relationship to understand, particularly in the context of the expectation that economic growth will result in new job opportunities, thereby improving poverty and, hopefully, inequality indicators. A weak relationship between economic and employment performance has important ramifications for the extent to which growth is shared amongst all members of society and for the way in which policy is formulated.

Since 1994, a growing number of economists have pointed to the inability of the South African economy to create meaningful numbers of jobs despite sustained economic growth over the period (see, for example, Sellars (2000), Moolman (2003), Altman (2003), and Mahadea (2003)). The general perception is that South Africa's post-*apartheid* economic performance has been characterised by 'jobless growth'. The term 'jobless growth' can be interpreted in two ways, although generally the distinction is not explicitly made, which represent respectively a very strict and a very broad interpretation of the term. Growth may be jobless when the general economy is expanding but the absolute employment level is stagnant or falling. Alternately, the term may describe a situation where general economic growth is accompanied by a rising unemployment rate (Altman 2003: 12), although this definition is not often intended in the current debate.

The evidence from national household survey data does not support the jobless growth argument over the post-*apartheid* period. In 2000 Rands, GDP totalled R804 billion in 1995 and increased by 30.2 per cent to stand at R1 046 billion nine years later (Table 1),

representing an average rate of economic growth of a respectable 3.0 per cent. This increase is significantly greater than the growth in both the total population (17.2 per cent growth over the period) and the working-age population (20.9 per cent).[1] In 1995, 24.2 million South Africans, representing 61.2 per cent of the total population, were between the ages of 15 and 65 years and thus eligible to form part of the labour force. By 2004, this had risen to 29.3 million (63 per cent of the population). Employment growth has lagged economic growth, although not by a large margin. Total employment in South Africa grew from 9.5 million to just under 11.6 million, representing an increase of around 22.4 per cent, equivalent to an average annual growth rate of approximately 2.3 per cent. Clearly, therefore, the first (and strictest) definition of jobless growth is not satisfied in South Africa for the 1995 to 2004 period.

The number of broadly unemployed individuals increased by 90.7 per cent between 1995 and 2004, from 4.2 million to 8.1 million.[2] Over the same period, narrow unemployment doubled from 2.0 million to 4.1 million, representing a 103.6 per cent increase in their numbers. However, by September 2004, narrow unemployment had begun falling from its peak of 5.25 million in March 2003 and 4.57 million in September 2003 (Statistics SA 2004b: iii), the latter being a better period with which to compare because of the seasonal variations inherent in March-September comparisons. The narrow labour force has consequently expanded by just over one-third (36.6 per cent) over the period to 15.8 million people. Broad labour force growth has been slightly more rapid (43.4 per cent and, by September 2004, the broad labour force included 19.7 million people. The difference between these two definitions of the labour force gives rise to the group of people referred to as discouraged workseekers, who no longer actively seek employment, but who would accept and be able to start employment immediately. The number of discouraged workseekers grew extremely rapidly, from 2.2 million to 3.9 million, equivalent to an annual growth rate of 6.7 per cent or 78.9 per cent over the period.

---

[1]   This paper uses two nationally representative household surveys conducted by Statistics South Africa. Data for 1995 is obtained from the October Household Survey (OHS) of that year. In 2000, the OHS series was discontinued and replaced by the Labour Force Surveys. Consequently, data for 2004 is derived from the Labour Force Survey (LFS) of September 2004. The OHS 1995 surveyed 126 283 individuals in 29 583 households. Using the national population estimates of Census 1996, these individuals and households are weighted to represent the full estimated population of 38.2 million in 1995. The LFS September 2004 surveyed 109 888 individuals in 28 594 households. The national population estimates of Census 2001 are utilised to weight the data to represent the full estimated population of 46.5 million.

[2]   Two standard definitions of unemployment are utilised, namely the narrow definition of unemployment (used as the official definition in South Africa by government and Statistics SA) and the broad definition of unemployment. Individuals are narrowly unemployed if they "(a) did not work during the seven days prior to the interview, (b) want to work and are available to start work within a week of the interview, and (c) have taken active steps to look for work or to start some form of self-employment in the four weeks prior to the interview" (Statistics SA *Statistical Release P0210* 2002: xv). The expanded (or broad) definition of unemployment does not include criterion (c).

Table 1: The South African Labour Force, 1995 and 2004

	1995	2004	Total Change	
			Absolute	Percentage
Real GDP (R million, 2000 prices)	803 713	1 046 087	242 374	30.2
Population (000s)	39 725	46 545	6 820	17.2
15-65 year olds (000s)	24 231	29 305	5 074	20.9
Employed (000s)	9 515	11 643	2 128	22.4
Narrow Unemployed (000s)	2 032	4 135	2 104	103.6
Broad Unemployed (000s)	4 239	8 083	3 845	90.7
Narrow Labour Force (000s)	11 547	15 778	4 232	36.6
Broad Labour Force (000s)	13 754	19 726	5 972	43.4
Narrow Unemployment Rate (%)	17.6	26.2	8.6	-
Broad Unemployment Rate (%)	30.8	41.0	10.2	-
Discouraged Workseekers ('000s)	2 207	3 948	1 741	78.9

Source: OHS 1995, LFS 2004:2 (Statistics SA).

Both narrow and expanded unemployment rates have risen since 1995. The narrow unemployment rate has risen from 17.6 per cent to 26.2 per cent, slightly down from the 31.2 per cent and 28.2 per cent of March and September 2003 respectively (Statistics SA 2004b: iii), while broad unemployment has increased from 30.8 per cent of the labour force to 41.0 per cent, which is also slightly off its September peak in 2003 of 41.8 per cent. Both of these increases in the unemployment rate, as indicated in greater detail in section , are highly statistically significant, although it is apparent that the unemployment rate has at least stabilised, if not improved. It is clear, therefore, that the South African economy continues to face an important challenge in terms of job creation. If one uses the second, very broad definition of jobless growth, then the existence of jobless growth in post-*apartheid* South Africa can not be disputed.

Returning to the strict definition of jobless growth, which is also the most commonly used definition, national household data clearly refutes the jobless growth argument. In the context of economic growth averaging 3.0 per cent per annum over the period and given the fact that average annual employment growth has outpaced population growth and the growth in the working-age population, it appears that the rising unemployment rates are resulting from some other trend. In fact, it is the high rate of growth of the labour force vis-à-vis employment that has resulted in rising unemployment rates. The labour force, however it is defined, has been growing at a rapid pace that will see it double every 19 years or so. At the same time, employment growth has averaged around 2.3 per cent per annum. It is this gap between employment growth and labour force growth that is largely responsible for the rapidly rising numbers of unemployed individuals.

Employment growth since 1995, therefore, should be seen in a more positive light than is generally the case. It does not lag economic growth by too large a margin and it has outstripped growth in both the population and the working-age population. The

unemployment problem is linked to rapid labour force growth, which has its roots in increased labour force participation, indicating that when the growth in participation slows (as it inevitably must, since it cannot exceed complete participation), it will become easier to make inroads into the pool of the unemployed, *ceteris paribus*. In order to address the issue of rising rates of unemployment, it is important to look at the various factors that drive the labour force participation decision, an issue that deserves further attention.

The relationship between output and employment, referred to as the output-employment elasticity, is determined through the econometric estimation of a labour demand equation[3], which can be derived at various levels such as nationally or sectorally. One of the most recent cross-sectoral employment elasticity studies in South Africa is that of Fields *et al.* (2000). The authors, in standard fashion, estimate an equation of the form:

$$\ln L_t = \beta + \beta_1 \ln w_t + \beta_2 \ln r_t + \beta_3 \ln Q_t + \varepsilon_t$$

where L is employment, w the wage rate, r the user cost of capital and Q output – all represented at time t. The output-employment elasticity is represented by the value **of the coefficient** β_3. The authors' underlying data, details of which are provided in the paper, cover non-agricultural formal employment.

Table 2 : Output-Employment Elasticity Estimates, Non-Agricultural Formal Employment (1980-1998)

Category	1980-89	1990-98
Aggregate	0.53 **	-0.06
Aggregate with A.A	0.29 **	-0.20
Public Sector	0.47 **	0.47
Private Sector	0.36 **	0.44

Source: Fields et al. (2000
Notes: 1. A.A refers to the fact that this equation was estimated with an autocorrelation adjustment.
** Significant at the 1 per cent level.

---

[3] See Hammermesh (1993) for a more detailed theoretical background to the theory of labour demand and an overview of international estimates of these elasticities.

What is immediately evident from the estimates is that while a high level of significance was achieved for the elasticities in the 1980-89 period, all coefficients for the 1990-98 period were insignificant. We cannot therefore, strictly speaking, say anything with confidence about the relationship between output and employment in at least part of the post-*apartheid* period. The results for the 1980s suggest that for the economy as a whole a one per cent increase in output was associated with a 0.29 per cent increase in employment. The coefficient is positive and significant, irrespective of the cut on the data and the econometric technique utilised. Importantly, however, the elasticity estimates across all the equations estimated by the authors are not significantly different from zero. In the context of this discussion, the 'jobless growth' argument rests on the assumption firstly that the output-employment elasticity is negative and significantly different from zero. On both these counts, irrespective of the period under consideration, it is clear that this assumption is incorrect.

While aggregate employment growth may seem relatively lacklustre, this is not necessarily true on a sectoral level. For example, Fedderke and Mariotti (2002) calculate labour demand function for 28 three-digit SIC version five manufacturing sectors over the period 1970-1997, expressing employment as a function of the real wage, the user cost of capital and output. The output elasticity of employment in these sectors was found to be around one (see Table 3), indicating that a one per cent rise in output was associated with employment growth of approximately one per cent *ceteris paribus*, leading the authors to point out that "[it] cannot, therefore, be claimed that South African manufacturing growth is jobless" (Fedderke & Mariotti 2002: 861).

Table 3: Selected Output-Employment Elasticities

| *Study*	*Period*	*Sectors*	*Elasticity*
Fedderke & Mariotti (2002)	1970-97	28 manufacturing sectors *	0.857
		28 manufacturing sectors **	1.002
Moolman (2003)	1970-2001	Coal Mining	0.64
		Food, Beverage and Tobacco	0.43
		Apparel	0.37
		Motor Vehicles, Parts & Accessories	0.70
		Finance and Insurance	0.62
		Business Services	1.89
		Medical, Dental & Veterinary Services	0.31

Note: * Assumes 5 per cent depreciation on capital.
         ** Assumes 10 per cent depreciation on capital.

What is clear from much of the previous work on aggregate output-employment elasticities is that they are less than one. This means that greater output is being produced by each worker. Moolman (2003) finds evidence of capital deepening in large sections of the economy with the coefficients of output in her estimated total employment equations often being less than one. Thus, increases in output result in less than proportional increases in employment and consequent decreases in the employment-output ratio over time (Moolman 2003: 23).

The jobless growth argument essentially derives from the familiar graph presented in Figure 1, illustrating the movement of indices of real GDP and non-Agricultural formal employment from 1967 to 2002. From the start of the series until the early 1990s, employment has tracked the movement of real GDP relatively closely. Output growth was associated with employment growth, while economic recessions saw stagnant or falling levels of employment. The economic recession of the early 1990s saw a sharp decline in non-Agricultural formal employment. Whereas prior to 1990, economic upswings were accompanied by rising employment levels, the economic expansion that occurred from the mid-1990s was not. Instead, employment continued its downward trend throughout the decade, falling by more than 12 per cent between 1994 and 2002, leaving non-Agricultural formal sector employment almost one-fifth lower in 2002 than its 1989 peak.

Figure 1: Non-Agricultural Formal Employment and Real GDP, 1967-2002
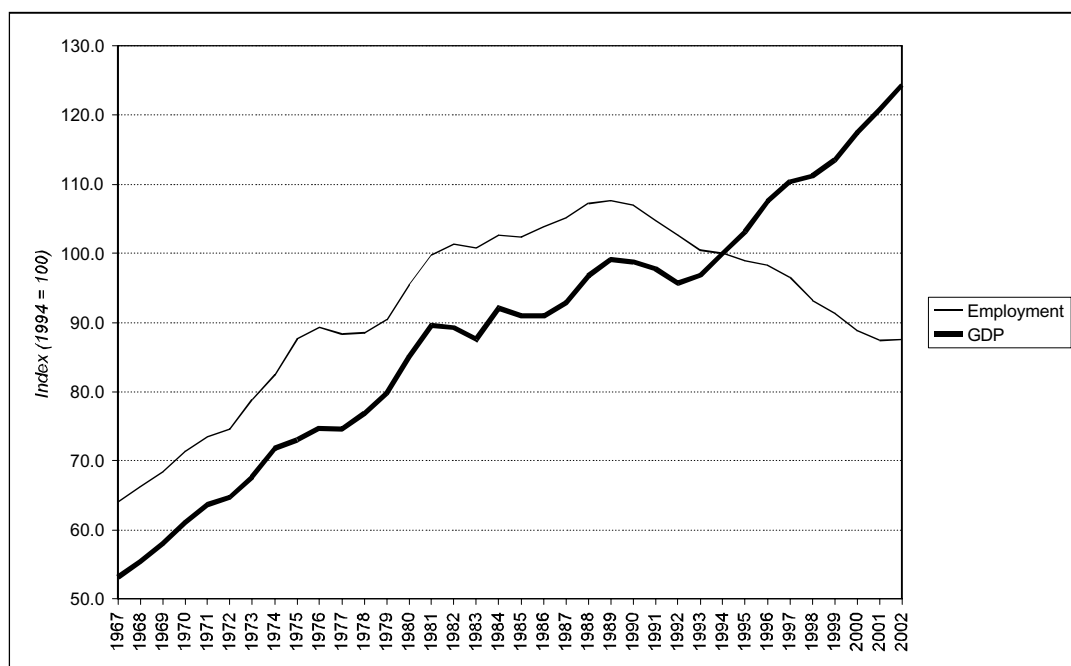
Source: Own calculations using SARB Quarterly Bulletins.
Note: 1. The employment indices published in the SARB Quarterly Bulletins are based on Statistics SA data from two
                 sets of surveys: the Manpower Surveys and the Surveys of Employment and Earnings (from 1998 onwards).

Space does not allow for the estimation of formal output-employment elasticities. Instead, without recourse to any formal modelling framework, 'simple elasticity' estimates that describe the relationship between output and employment since 1970 are presented.[4] The figures in Table 4 are directly derived from the trends in Figure 1. They indicate firstly, that prior to 1990, output expansion was accompanied by employment growth. Thus, between 1970 and 1980, a one per cent increase in real GDP was associated with a 0.76 per cent increase in employment. For the 1980-1990 period, employment grew at half the rate of output (0.49 per cent for each one per cent expansion in output). Graphically, this corresponds with the broadly similar movements of GDP and non-Agricultural formal employment. In contrast, the figures for the period after 1990 are negative: between 1990 and 1996 it was -0.55 and for the 1996-2002 period it fell further to -1.29. The latter estimate

---

4   Of course, formal modelling is required to control for the variety of different variables that may impact on the
         relationship between output and employment. Consequently, the numbers presented are not output-employment
         elasticities.

implies that for every one per cent growth in real GDP, non-Agricultural formal employment fell by 1.3 per cent.

Table 4: Simple GDP 'Elasticity' of Non-Agricultural Formal Employment

	Annual Percentage Change in:		$\dfrac{\Delta Employment}{\Delta GDP}$
	Formal Employment	*GDP*	
1970-1980	2.75	3.6	0.76
1980-1990	0.98	2.0	0.49
1990-1996	-0.55	1.0	-0.55
1996-2002	-1.90	2.5	-1.29

Source: Loots (1998: 330) and own calculations (for 1996-2002) using SARB Quarterly Bulletins.
Notes: 1. The ratio of employment growth to GDP growth presented in the final column is not a true output elasticity of employment.

Figure 1 and Table 4 represent the central 'evidence' for jobless growth. Econometric studies, as mentioned earlier, have however not found supportive evidence once various other factors have been accounted for. Further, the underlying employment data renders the conclusion of jobless growth problematic. These problems lie not in the deductions made on the basis of the data presented, but rather more in the coverage and reliability of the underlying data.[5]

It is possible, though, to construct a picture of total employment in the South African economy between 1995 and 2004 using the October Household Surveys and the recent Labour Force Surveys, conducted by Statistics SA. By sampling households, these surveys are able to provide a better picture of total employment than surveys, such as the Survey of Employment and Earnings (SEE), that sample firms. These figures, in the first instance provide a contrasting overview of employment shifts in the post-*apartheid* period. Hence, for the period October 1995 to September 2004, which utilises the October Household Survey for 1995 and the Labour Force Survey for the 2004 estimates, these figures reveal that

---

5 Oosthuizen and Bhorat (***forthcoming***) expose a variety of problems with the employment data presented in Figure 1 that render the conclusion of jobless growth unsound.

- The real GDP data represents total output of the South African economy, while the employment data explicitly excludes the Agriculture sector, the country's fourth biggest employment sector, as well as the informal sector.

- The Survey of Employment and Earnings (SEE) data, which forms the basis of the official employment series, omits a large number of sectors and these omissions can vary from survey to survey. The survey explicitly ignores small firms, while being unable to properly capture employment in newly established firms, resulting in relatively poor SMME coverage.

aggregate employment has increased from 9.56 million in 1995 to 11.64 million in 2004, translating into a growth in employment of 22.4 per cent over the period. This is of course starkly contradictory to the SEE figures shown above, and indeed begins to seriously question the notion of jobless growth. Using these total employment figures to calculate the GDP elasticity of *total* employment, a very different picture therefore emerges (Table 5).

Table 5: Simple GDP 'Elasticity' of Total Employment

	Annual Percentage Change in:		$\dfrac{\Delta Employment}{\Delta GDP}$
	Total Employment	**GDP**	
1990-1995	0.13	0.8	0.16
1995-2004	2.27	3.0	0.76

Source: Loots (1998: 331) for 1990-1995 figures. For 1995-2002 figures, own calculations using SARB Quarterly Bulletins, Statistics SA (2000, 2002), and Bhorat (2003a).
Notes: 1.   The ratio of employment growth to GDP growth presented in the final column is not a true output elasticity of employment.

According to the household survey figures, it appears that total employment has grown by an average of 2.3 per cent per annum, which, as mentioned earlier, is relatively close to the rate of economic expansion. Consequently, the simple 'output elasticity of total employment' for the period 1995 to 2004 is 0.76, indicating that for every one per cent of GDP growth, total employment increased by 0.76 per cent. This stands in sharp contrast to the elasticity of -0.64 for formal employment between 1995 and 2002.[6] This 1995-2004 'elasticity' is also significantly higher than the 1990-1995 'elasticity' calculated by Loots (1998). This is not to say that the South African economy is coping well in terms of absorbing new labour market entrants into employment and these figures should not be used to lighten the severity of the unemployment problem in South Africa.

In summary, therefore, economic growth in South Africa over the post-*apartheid* period was not jobless. According to household survey data, which is more comprehensive and arguably better able to capture employment than the surveys underlying the 'Non-Agricultural Formal Employment' data series, total employment in South Africa expanded by 2.3 per cent per annum on average. Instead of being simply a problem of poor

---

6   For 1995 to 2002, the relevant household survey-based 'elasticity' is 0.81.

labour absorptive capacity of economic growth, it appears that the rising rates of both narrow and broad unemployment may have more to do with the rapid increase in labour force participation, i.e. the proportion of the working-age population that is a member of the labour force, that has occurred across gender and race groups. Hoping not to pre-empt later analysis, the following simplistic example attempts to put the rapid increase in labour force participation into perspective. In 2004, 67.3 per cent of the working-age population was in the labour force, compared to 56.8 per cent in 1995. If broad labour force participation had remained at 56.8 per cent in 2004, the broad labour force would have numbered 16.6 million instead of 19.7 million, the broadly unemployed would have numbered five million instead of eight million, the broad unemployment rate would have been approximately 30 per cent as opposed to 41 per cent, and the economy's employment performance would have been viewed in a more positive light. This issue is investigated in greater detail in section 2.3 below.

2.2 The Characteristics of the Labour Force

The composition of the broad labour force is presented in Table 6.[7] As mentioned above, the broad South African labour force grew by some 6.0 million individuals between 1995 and 2004. The labour force is dominated by African individuals (more than 75 per cent in 2004), with Whites accounting for around 11 per cent in 2004, down from 14.4 per cent in 1995. Their dominance within the labour force and faster rate of entry into the labour force means that Africans account for over 87 per cent of the increase in the size of the labour force over the period. By 2004, the labour force was almost evenly split between males and females (52.0 per cent *vs.* 48.0 per cent). The increasing share of women in the labour force, often referred to as 'labour force feminisation', was identified by Casale and Posel (2002: 164), who estimated the 1999 female share of the broad labour force at 48.2 per cent based on OHS 1999. This rise in the female share of the labour force is due to a very rapid rise in the female labour force participation rate and means that females account for more than 55 per cent of the net increase in the labour force. This pattern is in evidence within all race groups.

---

7   Although the narrow definition of unemployment is the official definition, there is a strong argument that in developing countries such as South Africa it is more appropriate to use the expanded definition of unemployment. Thus, although details of narrow unemployment are provided, most of the analysis that follows will use the expanded definition.

Table 6: Snapshot of the South African Labour Force (Broadly Defined), 1995 and 2004

		1995		2004		Change	
		›000s	Share	›000s	Share	›000s	Share
TOTAL		*13 754*	*100.0*	*19 726*	*100.0*	*5 972*	*100.0*
By Race...	African	9 875	71.8	15 096	76.5	5 221	87.4
	Coloured	1 485	10.8	1 866	9.5	380	6.4
	Asian	417	3.0	529	2.7	113	1.9
	White	1 976	14.4	2 198	11.1	221	3.7
By Gender...	Male	7 598	55.2	10 250	52.0	2 651	44.4
	Female	6 155	44.8	9 466	48.0	3 310	55.4
By Age...	15-24 years	2 403	17.5	4 060	20.6	1 657	27.7
	25-34 years	4 977	36.2	7 064	35.8	2 086	34.9
	35-44 years	3 670	26.7	4 498	22.8	828	13.9
	45-54 years	1 941	14.1	2 916	14.8	975	16.3
	55-65 years	762	5.5	1 188	6.0	426	7.1
By Education Level...	No education	1 182	8.6	1 062	5.4	-120	-2.0
	Incomplete Primary	2 441	17.8	2 876	14.6	435	7.3
	Complete Primary	1 017	7.4	1 342	6.8	325	5.4
	Incomplete Secondary	4 573	33.2	7 019	35.6	2 446	41.0
	Complete Secondary	2 873	20.9	5 159	26.2	2 286	38.3
	Tertiary	1 430	10.4	1 959	9.9	529	8.9
	Other/Unknown	237	1.7	308	1.6	71	1.2

Source: OHS 1995, LFS 2004:2 (Statistics SA).

The bulk of the labour force, around three out of five labour force members, are between the ages of 25 and 44 years, with the proportion in 2004 of 58.6 per cent slightly lower than that of 1995. This change is related to the increase in the proportion of labour force members in the 15 to 24 year age-group, which accounted for 27.7 per cent of labour force growth over the period. The two youngest age-groups accounted for most of the growth in the labour force (around 63 per cent), with the two oldest age-groups managing to hold their ground, if not slightly increasing their share of the labour force. Consequently, the share of the labour force accounted for by 34 to 44 year olds fell to under 23 per cent.

It appears that the South African labour force is slowly becoming more educated on average. The proportion of individuals with completed secondary education rose from 20.9 per cent in 1995 to 26.2 per cent in 2004, while completely uneducated individuals now account for under six per cent of the labour force, compared to 8.6 per cent in 1995, having also declined in absolute terms. However, the increase in the number of tertiary educated labour force members has been unable to keep pace with the rate of total labour force growth, while 12.7 per cent of the net increase in the labour force is comprised of individuals with complete or incomplete primary education. Those with incomplete and complete secondary education accounted for almost 70 per cent of the growth in the labour force, compared to their 1995 share of the labour force of 54.1 per cent.

The majority of the labour force is located in urban areas, with only 36 per cent in rural areas in 2003. Unfortunately, the LFSs are no longer published with the definitionally problematic urban/rural classification and therefore comparable figures for 2004 are not available. The proportion of the labour force in rural areas remained relatively constant between 1995 and 2003, an interesting fact given the continued urbanisation of rural jobseekers over the period. This phenomenon is likely to be linked to the increased labour force participation of females. In fact, rural African females account for almost one-quarter of the increase in the labour force between 1995 and 2002, although it is impossible to determine this group's full contribution due to migration to urban areas.

In summary, therefore, the surveys indicate that growth in the labour force during the post-*apartheid* era can be broadly ascribed to predominantly African new job-seekers who are increasingly female, living in urban areas with some level of secondary education (either incomplete or matric) and, in the main, under the age of 35 years.

The trends presented above are not independent of race and therefore sometimes very different patterns can be observed within race groups. Table 7 presents the age and education breakdowns for African and White individuals.[8] The gender breakdowns for the four race groups are very similar with females accounting for around 55 per cent of the growth in the labour force, and are therefore not included here.

Population growth rate differences amongst the race groups have resulted in marked differences in the age structure of the labour force and in the contribution of different age-groups to labour force growth. The bulk of the African and White labour force is between the ages of 25 and 44 years. The major difference between these two groups lies in the age-groups responsible for labour force growth. Amongst Africans, more than one-third of labour force growth occurred in the 25 to 34 year age-group, with a further 31.1 per cent occurring amongst 15 to 24 year olds. The three youngest age-groups account for over 79 per cent of African labour force growth. The falling proportion of 35 to 44 year olds in the labour force seen earlier is evident amongst Africans: although this group accounted for 27 per cent of the labour force in 1995, it accounted for a mere 12.5 per cent of labour force growth up to 2004. In contrast, the bulk of net White labour force growth occurred in the older age-groups: 44 per cent in the 55 to 65 year age-group and 25 per cent in the 45 to 54 year age-group. Interestingly, though, 25 to 34 year olds accounted for 39 per cent of labour force growth, which is in stark contrast to the 15 to 24 year age-group, whose share of the labour force shrank. This could partly be due to the declining birth rate amongst Whites and, when

---

8   The full table for African, Coloured, Asian and White individuals and including the gender breakdown can be found
     in Appendix A.

seen in the context of the growth of the 25 to 34 year age-group, possibly partly due to young individuals continuing with their education longer than in 1995.

Table 7: Snapshot of the SA Labour Force (Broadly Defined) by Race, 1995 and 2004

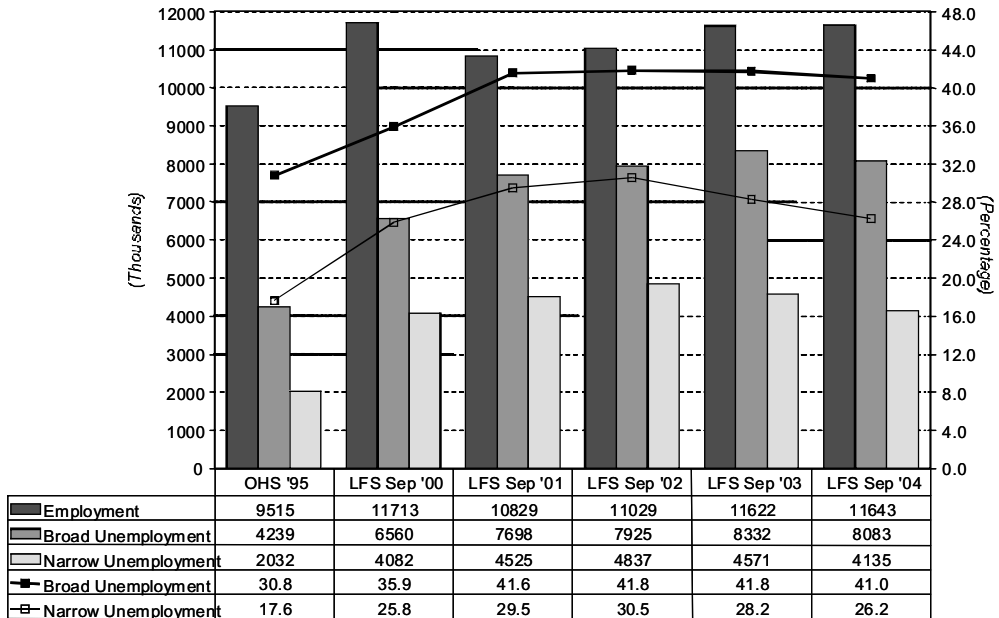|		1995		2004		Change	
		›000s	Share of Race Total	›000s	Share of Race Total	›000s	Share of Race Total
By Race and Age-group...							
African	15-24 years	1 628	16.5	3 251	21.5	1 624	31.1
	25-34 years	3 728	37.8	5 587	37.0	1 859	35.6
	35-44 years	2 678	27.1	3 332	22.1	654	12.5
	45-54 years	1 317	13.3	2 091	13.8	773	14.8
	55-65 years	524	5.3	835	5.5	311	6.0
White	15-24 years	312	15.8	249	11.3	-63	-28.5
	25-34 years	576	29.2	663	30.2	86	39.0
	35-44 years	541	27.4	585	26.6	45	20.2
	45-54 years	388	19.6	444	20.2	56	25.2
	55-65 years	159	8.0	256	11.7	97	44.0
By Race and Education...							
African	No education	1 087	11.0	999	6.6	-88	-1.7
	Incomplete Primary	2 133	21.6	2 628	17.4	495	9.5
	Complete Primary	844	8.5	1 163	7.7	319	6.1
	Incomplete Secondary	3 375	34.2	5 789	38.3	2415	46.2
	Complete Secondary	1 574	15.9	3 349	22.2	1775	34.0
	Tertiary	682	6.9	968	6.4	286	5.5
White	No education	1	0.0	2	0.1	1	0.4
	Incomplete Primary	7	0.3	7	0.3	0	0.0
	Complete Primary	1	0.1	11	0.5	10	4.5
	Incomplete Secondary	423	21.4	294	13.4	-130	-58.6
	Complete Secondary	900	45.6	1 040	47.3	140	63.1
	Tertiary	599	30.3	787	35.8	188	84.9

Source: OHS 1995, LFS 2004:2 (Statistics SA).

The validity of the latter possibility is confirmed by the fact that tertiary educated individuals accounted for almost 85 per cent of net White labour force growth over the period, with those with completed secondary education accounting for nearly two-thirds. This was balanced out by a sharp decline in the number of White labour force participants with incomplete secondary education. This meant that by 2004, over 83 per cent of the White labour force possessed either complete secondary (47.3 per cent) or tertiary (35.8 per cent) education. African labour force growth, in contrast, derived largely from the rapid increase in the number of African labour force participants with incomplete and complete secondary education (with growth shares of 46.2 per cent and 34.0 per cent respectively). Only 28.6 per cent of African labour force members had completed secondary or tertiary education, with the proportion of tertiary educated individuals falling marginally to 6.4 per cent of the African labour force.

By definition, labour force growth translates into a combination of two phenomena, namely increased absolute employment and/or increased absolute unemployment. While employment has expanded, it has been unable to keep pace with labour force growth, meaning that the increase in the labour force has largely translated into increasing unemployment. Just over one-third of the net increase in the broad labour force represents expanded employment, while for the narrow labour force the proportion is slightly more than one-half. As a consequence, both broad and narrow unemployment rates have increased since 1995 (Figure 2). Broad unemployment rose to 41.8 per cent of the labour force in 2002 and 2003, from 30.8 per cent in 1995, although it is slightly lower in 2004. The narrow unemployment rate increased from 17.6 per cent in 1995 to 30.5 per cent in 2002, since which it has fallen by more than four percentage points. In absolute numerical terms, narrow unemployment rose to 4.8 million in 2002 and has since declined to 4.1 million, while broad unemployment rose to 8.3 million in 2003.[9] Estimates of total employment of individuals between the ages of 15 and 65 years have fluctuated within a band of between 10.8 and 11.8 million people since 2000. Once agriculture (commercial, subsistence and small-scale), the informal sector and domestic workers are excluded, this variability becomes less pronounced (Statistics SA *Statistical Release P0210* 2004b: iv). The relative stability in aggregate employment implies that all of the recorded increase in employment over the 1995 to 2004 period has occurred between the 1995 OHS and the 2000 LFS. This raises numerous questions as to the extent to which the recorded rise in employment over the period is due to changes in survey design and quality, as opposed to real employment increases (see Oosthuizen and Bhorat (*forthcoming*) for discussion of this issue). It is important that this issue remain in mind when analysing employment change as inferred from these surveys later in this paper.

---

9   It should be noted that Statistics SA has yet to release weights based on the 2001 Census for the earlier LFSs. The September LFSs of 2003 and 2004 were released with 2001 Census population weights, but the 2000, 2001 and 2002 LFSs are weighted with 1996 Census population weights. It is unclear, however, to what degree these outdated weights impact on the patterns exhibited in Figure 2.

Figure 2: Employment and Unemployment, 1995-2004

	OHS '95	LFS Sep '00	LFS Sep '01	LFS Sep '02	LFS Sep '03	LFS Sep '04
Employment	9515	11713	10829	11029	11622	11643
Broad Unemployment	4239	6560	7698	7925	8332	8083
Narrow Unemployment	2032	4082	4525	4837	4571	4135
Broad Unemployment	30.8	35.9	41.6	41.8	41.8	41.0
Narrow Unemployment	17.6	25.8	29.5	30.5	28.2	26.2

Source: OHS 1995, LFS 2000-2004 (Statistics SA).

The inability of the economy to create jobs at the same pace at which the labour force has been growing is clearly illustrated in Table 8. The table compares employment, broad and narrow unemployment and the total labour force over the nine years between 1995 and 2004. Growth in unemployment over the period has been rapid, with the rates of broad and narrow unemployment growth exceeding that of employment growth by factors of 4.0 and 4.6 respectively, albeit from a relatively smaller base.

Table 8: Employment and Labour Force Growth, 1995-2004

Category	1995 (Oct) (>000s)	2004 (Sep) (>000s)	Change		Target Growth Rate	Employment Absorption Rate
			Absolute (>000s)	Per cent		
Broad Definition Estimates						
Employment	9 515	11 643	2 128	22.4		
Unemployment (broad)	4 239	8 083	3 845	90.7	62.8	35.6
Labour Force	13 754	19 726	5 972	43.4		
Official Definition Estimates						
Employment	9 515	11 643	2 128	22.4		
Unemployment (narrow)	2 032	4 135	2 104	103.6	44.5	50.3
Labour Force	11 547	15 778	4 232	36.6		

Source: OHS 1995, LFS 2004:2 (Statistics SA).

Merely comparing growth rates does not always provide a clear impression of employment performance and the table also present the target growth rate of employment and the employment absorption rate for the period (following Bhorat 2003b: 11). The target growth rate (TGR) measures how fast employment would have had to expand in order to provide work for all net entrants to the labour market over a given period (say between time t and $t + 1$), and is defined as follows:

$$TGR_k = \frac{EAP_{k,t+1} - EAP_{k,t}}{L_{k,t}}$$

where EAP_k refers to the economically active population of group k, defined by any given covariate, and L_k is the number of employed group k individuals. Because this target growth rate captures the growth required to provide employment to only new entrants since 1995, it is independent of the rate or level of unemployment in the base year (1995). Employment growth at the target rate would result in a reduction in the relevant group's overall unemployment rate.[10] The employment absorption rate (EAR) is the ratio between actual employment growth and the desired or target rate, expressed as a percentage:

---

10   This is because, considering new labour market entrants as a group on their own, if employment grew at the target growth rate, thereby absorbing all new entrants into employment, their unemployment rate would be zero. The fact that, in reality, not all new jobs go to new entrants does not impact on this reduction in the overall unemployment rate.
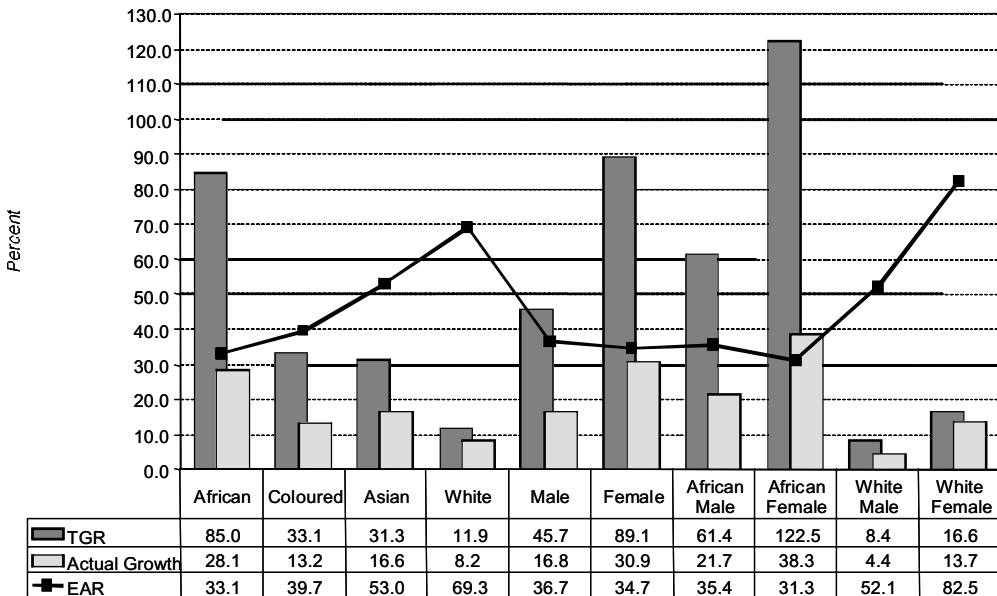
$$EAR_k = \frac{\dfrac{L_{k,t+1} - L_{k,t}}{L_{k,t}}}{\dfrac{EAP_{k,t+1} - EAP_{k,t}}{L_{k,t}}} = \frac{L_{k,t+1} - L_{k,t}}{EAP_{k,t+1} - EAP_{k,t}}$$

It denotes the proportion of the net increase in the labour force that finds employment. The higher the employment absorption rate, the better the actual relative to the desired employment performance. An *EAR* of 100 denotes a situation where the increase in the labour force is fully accounted for by an increase in employment. An *EAR* of greater than 100 is possible where employment grows more than the labour force in absolute terms, i.e. where employment is growing and unemployment falling in numerical terms.

In order for all net entrants to the labour force between 1995 and 2004, employment would have had to increase by almost two-thirds (62.8 per cent), using the broad definition of unemployment. Using the official definition, employment would have had to grow by 44.5 per cent. In reality, however, actual employment grew at slightly more than one-third (35.6 per cent) of the required rate using the broad definition and, using the official definition of unemployment, the *EAR* was only 50.3 per cent. These figures again refute the jobless growth argument since they indicate that employment has increased and, by extension, more jobs were created over the period than were lost.

However, this aggregated view obscures the varied experiences of groups defined according to race, gender and other covariates. In Figure 3, the target and actual rates of employment growth, and the resultant employment absorption rates, for groups defined by race, gender and province are presented. Unsurprisingly, the target growth rates for non-White workers are relatively high, at 33.1 per cent for Coloureds, 31.3 per cent for Asians and a staggering 85.0 per cent for African individuals. This translates to an annual growth rate target of between 3.1 per cent and 7.1 per cent. The target growth rate for White workers is significantly lower at under 12 per cent. These differences may be traced to demographic differences, specifically the relatively low birth rate amongst Whites compared to the other race groups during the 1980s, as well as changed labour force participation rates. Actual employment growth has been higher amongst Africans and Asians. However, the interaction between target and actual employment growth means that employment absorption has been significantly higher for White individuals at 69.3 per cent. The *EARs* for Africans, Coloureds and Asians are 33.1 per cent, 39.7 per cent and 53.0 per cent respectively. Thus, for example, actual employment of Africans has grown at around one-third of the target rate. Simply stated, Whites continue to reap relatively more of the benefits in the post-*apartheid* era in terms of employment growth than any other group, while African job-seekers seem, still, to be marginalised in this respect.

Figure 3: Target and Actual Employment Growth, 1995-2004

	African	Coloured	Asian	White	Male	Female	African Male	African Female	White Male	White Female
TGR	85.0	33.1	31.3	11.9	45.7	89.1	61.4	122.5	8.4	16.6
Actual Growth	28.1	13.2	16.6	8.2	16.8	30.9	21.7	38.3	4.4	13.7
EAR	33.1	39.7	53.0	69.3	36.7	34.7	35.4	31.3	52.1	82.5

Source: OHS 1995, LFS 2004:2 (Statistics SA).
Notes: 1. Labour force figures used here are based on the broad definition of unemployment.

The nine years up to the end of 2004 has seen a large increase in the number of female labour market participants in South Africa. As a result, the target growth rate to ensure that all female net entrants are employed is more than 89 per cent, or 7.3 per cent annually. In contrast, the target growth rate for male workers is only 45.7 per cent. Employment of women has increased more rapidly than that of men, with the former increasing by almost 31 per cent over the period. As a result, employment absorption for both males and females is 36.7 per cent and 34.7 per cent respectively. However, employment absorption is not similar across race groups within gender groups. A comparison of employment absorption amongst African and White males and females reveals a substantial gap in the employment absorption rates between African females and White females (31.3 per cent *vs*. 82.5 per cent respectively) and between African males and White males (35.4 per cent *vs*. 52.1 per cent respectively). This means that target and actual employment growth are most closely matched for White females and least closely matched for African females. The rapid growth in the number of female labour force participants is evidenced by the target employment growth rate for African females of 122.5 per cent, indicating that employment would have had to more than double to accommodate the net increase in the number of African females in the labour force.

The overarching message to be gleaned from these figures is, therefore, that the growth in the number of jobs has been far outstripped by the expanding labour force. While employment for some groups has grown rapidly relative to the increase in the size of the

labour force, resulting in relatively high labour absorption rates (specifically, non-Africans and White females in particular), none of the groups investigated experienced actual employment growth even in the region of the target growth rates. Thus, unemployment rates have continued to rise for these groups. The fact that the economy has been unable to provide sufficient employment opportunities for the South African population in the face of the rapid increase in labour force participation means that even greater demand for rapid job-creation will be placed on the economy in the medium-term.

2.3 Labour Force Participation

The initial evidence presented above suggests that an important root of unemployment is the fact that the labour force is growing at a rate in excess of both the working-age population (between the ages of 15 and 65 years) and total employment. In particular, growth in the number of labour force members has to a large extent occurred mainly amongst the younger sections of the population. This means that the probability of an individual being a member of the labour force is increasing over time. This overall probability is measured by the labour force participation rate (LFPR) and is defined as the proportion of labour force members within the total number of individuals between the ages of 15 and 65 years.

Table 9 presents broad labour force participation rates for the South African economy in 1995 and 2004 by various demographic and other characteristics. Overall, the proportion of individuals between the ages of 15 and 65 years who are members of the broadly defined labour force rose from 56.8 per cent in 1995 to 67.3 per cent in 2004, with the narrow LFPR increasing by 6.1 percentage points to 53.8 per cent. In general, labour force participation is highest amongst White and Coloured adults[11] at 70.9 per cent and 69.5 per cent respectively in 2004. Just under 63 per cent of females are labour force members, compared with 72.2 per cent of males. This gap may be overestimated due to the fact that the female retirement age is 60 years, five years earlier than that of males. Research has found that labour force participation amongst urban dwellers is significantly higher than amongst rural dwellers (Oosthuizen & Bhorat 2004: 7), although this gap has narrowed substantially since 1995. This urban-rural pattern is manifest in the provincial LFPR variations, with provinces with more urbanised adult populations such as Gauteng and the Western Cape having higher LFPRs than those with more predominant rural adult populations. Labour force participation is lowest in the Eastern Cape (59.1 per cent) and Limpopo (61.7 per cent). As expected, labour force participation is lowest amongst the youngest and oldest age-groups (in the low 40 per cents in 2004), due respectively to relatively higher rates of attendance of

---

11   For the sake of convenience, individuals between the ages of 15 and 65 years are referred to as 'adults', those below 15 years as 'children' and those over 65 years as 'elderly'.

educational institutions and retirement. In 2004, approximately 54 per cent of 15 to 24 year olds were attending some type of educational institution, with around 94 per cent of these individuals being outside of the labour force. Almost nine in ten 25 to 44 year olds are economically active, up from around eight in ten in 1995.

Table 9: Broad Labour Force Participation Rates in South Africa, 1995-2004

Category	1995	2004	Change	Category	1995	2004	Change
African	54.3	66.7	12.4	15-24 years	29.4	42.9	13.6
Coloured	65.4	69.5	4.1	25-34 years	77.5	89.6	12.2
Asian	58.4	64.3	5.9	35-44 years	79.1	86.1	6.9
White	64.6	70.9	6.4	45-54 years	69.9	75.1	5.2
Male	65.8	72.2	6.4	55-65 years	34.6	41.6	7.0
Female	48.5	62.7	14.2	Western Cape	66.5	72.9	6.4
African Male	62.5	70.4	8.0	Eastern Cape	47.3	59.1	11.9
African Female	47.0	63.1	16.2	Northern Cape	59.7	66.4	6.7
Coloured Male	73.9	74.8	0.9	Free State	62.6	66.8	4.2
Coloured Female	57.6	64.8	7.2	KwaZulu-Natal	53.1	62.7	9.6
Asian Male	77.9	80.3	2.4	North-West	56.4	66.2	9.8
Asian Female	40.2	48.0	7.9	Gauteng	68.7	77.4	8.7
White Male	76.3	80.3	4.0	Mpumalanga	54.9	67.7	12.8
White Female	53.2	61.6	8.4	Limpopo	39.9	61.7	21.8
Total Broad LFPR	**56.8**	**67.3**	**10.6**	**Total Narrow LFPR**	**47.7**	**53.8**	**6.2**

Source: OHS 1995, LFS 2004:2 (Statistics SA).

Several groups have seen substantial increases in labour force participation over the period. The key group here is probably African females, whose LFPR increased from 47.0 per cent to 63.1 per cent between 1995 and 2004. The reason why it is regarded as 'key' is that the impact of increased labour force participation amongst this group is evident in groups defined according to other characteristics. Adult females accounted for 54 per cent of all rural adults in 2002 (African adult females alone were 51 per cent of the rural adult population) and consequently, the rural LFPR increased by almost fourteen percentage points, from 47.6 per cent to 61.5 per cent between 1995 and 2002 (Oosthuizen & Bhorat 2004: 9). At the same time, provinces with more rural adult populations, e.g. Limpopo, Mpumalanga and the Eastern Cape experienced the greatest increases in labour force participation. Large increases were also found to have occurred amongst the two youngest age-groups, namely 15 to 24 year olds and 25 to 34 year olds. Relative to 1995 levels, labour force participation has increased most rapidly amongst Limpopo adults (equivalent to a 55 per cent increase on the 1995 LFPR), 15 to 24 year olds (46 per cent), African females (34 per cent), females in general (29 per cent), Eastern Cape adults (25 per cent) and Mpumalanga adults (23 per cent).

A significant part of the current unemployment problem derives from the rapid increase in the propensity for individuals to enter the labour force. The enormous task in terms of job creation is therefore clearly evident. The economy has to grow at a sufficiently rapid pace to deal with the original deficit in jobs from 1995 as well as the rapid increase in the number of

labour force members since. Thus, the target is not a stationary one, but continues to move. In order to address the rapidly increasing unemployment rate, it is key for analysts to focus on understanding the reasons underlying the dramatic increase in labour force participation in a relatively short period, particularly in this context in which unemployment has been high and rising for an extended period of time. Unfortunately, these are questions that the LFSs are unable to answer.

3. Employment

3.1 Demographic and Locational Characteristics of the Employed

Generally, the net increase of 2.1 million jobs has been concentrated in certain demographically and geographically defined groups, as detailed by Table 10. More than four-fifths or 1.7 million of these jobs were filled by Africans, which is more or less in line with the group's 77 per cent share of the adult (working age) population. At 7.9 million, employed Africans account for 67.6 per cent of all employed individuals in 2004, with Whites accounting for another 2.0 million or 17.3 per cent. Similarly, the net increase in female employment over the period totalled more than 1.1 million jobs, thereby raiding females' share of employment to 41.8 per cent in 2004 from 9.1 per cent nine years earlier.

Table 10: Demographic Characteristics of the Employed, 1995 and 2004

	1995		2004		Change	
	'000s	Share (%)	'000s	Share (%)	'000s	Share (%)
Total	9 515.0	100.0	11 642.7	100.0	2 127.7	100.0
By Race...						
- African	6 145.3	64.6	7 874.4	67.6	1 729.2	81.3
- Coloured	1 147.4	12.1	1 298.4	11.2	151.0	7.1
- Asian	359.5	3.8	419.1	3.6	59.6	2.8
- White	1 862.8	19.6	2 016.3	17.3	153.5	7.2
By Gender...						
- Male	5 798.4	60.9	6 771.7	58.2	973.2	45.7
- Female	3 716.6	39.1	4 865.9	41.8	1 149.3	54.0
By Age-Group...						
- 15 to 24 years	1 126.1	11.8	1 288.5	11.1	162.3	7.6
- 25 to 34 years	3 281.0	34.5	3 948.0	33.9	667.0	31.3
- 35 to 44 years	2 862.6	30.1	3 133.6	26.9	271.0	12.7
- 45 to 54 years	1 589.4	16.7	2 268.9	19.5	679.2	31.9
- 55 to 65 years	655.6	6.9	1 003.8	8.6	348.2	16.4
By Province...						
- Western Cape	1 355.5	14.2	1 691.1	14.5	335.7	15.8
- Eastern Cape	919.0	9.7	1 277.6	11.0	358.6	16.9
- Northern Cape	213.7	2.2	228.8	2.0	15.1	0.7
- Free State	753.6	7.9	777.1	6.7	23.4	1.1
- KwaZulu-Natal	1 715.7	18.0	2 092.4	18.0	376.7	17.7
- North-West	750.6	7.9	834.8	7.2	84.2	4.0
- Gauteng	2 639.4	27.7	3 069.5	26.4	430.1	20.2
- Mpumalanga	585.4	6.2	788.7	6.8	203.2	9.6
- Limpopo	582.0	6.1	882.7	7.6	300.7	14.1
By Education Level...						
- None	772.1	8.1	696.8	6.0	-75.3	-3.5
- Incomplete Primary	1 541.3	16.2	1 591.5	13.7	50.1	2.4
- Complete Primary	637.5	6.7	739.1	6.3	101.7	4.8
- Incomplete Secondary	2 949.8	31.0	3 479.2	29.9	529.3	24.9
- Complete Secondary	2 096.8	22.0	3 140.9	27.0	1 044.1	49.1
- Tertiary	1 335.7	14.0	1 754.9	15.1	419.3	19.7
- Other/Unspecified	181.8	1.9	240.3	2.1	58.5	2.7

Source: OHS 1995, LFS 2004:2 (Statistics SA).

The bulk of the net increase in employment occurred amongst individuals in the 25 to 34 year and 45 to 54 year age-groups, with both groups recording employment gains in excess of 650 000 jobs. These two groups represent just over half of the total labour force growth (see Table 6) and 63 per cent of employment growth. The major losers were individuals under the age of 25 years who accounted for 27.7 per cent of total labour force growth between 1995 and 2004, but only 7.6 per cent of employment growth. The two cohorts over 45 years of age have seen their shares of employment rise substantially over the period, from 23.6 per cent to 28.1 per cent. As was seen in the broad labour force, the 35 to 44 year age-group has seen its share of employment eroded over the period from 30.1 per cent to 26.9 per cent. The evidence therefore seems to point towards an ageing of the South African workforce, with only the oldest cohorts experiencing increases in their relative shares of total employment.

Employment remains concentrated in Gauteng, KwaZulu-Natal, the Western Cape and the Eastern Cape, which are also the provinces with the largest economies, accounting for 33.0, 16.5, 14.5 and 8.1 per cent of GDP respectively in 2003 (Statistics SA 2004a: 19). In 2004, these provinces were home to almost 70 per cent of all employed adults, which very similar to the 1995 proportion and to these provinces' 72 per cent contribution to national GDP in 2003. These provinces also accounted for the bulk of employment expansion over the 1995-2004 period, a net increase of around 1.5 million jobs, or 71 per cent of the total. This cannot be separated from the fact that these four provinces were in the top five contributors to economic growth (the top five being Gauteng, KwaZulu-Natal, the Western Cape, Limpopo and the Eastern Cape), accounting for more than three-quarters of national economic growth (own calculations, Statistics SA 2004a). Employment increased at rates slower than the national average in the Northern Cape, Free State, North-West and Gauteng, which means that these provinces have lost ground in terms of national employment shares. It is encouraging that much of the employment growth and some of the most rapid increases have occurred in some of the country' poorer provinces, although this may, in fact, be more related to improvements in data quality over the period.

Fewer people with no education at all were employed in 2004 than in 1995. This is arguably due to the changing mix of skills required by employers, as well as the fact that individuals that lack any form of education tend to be significantly older than those with some or other level of education. In 2004, the average adult (aged 15 years or more) without education was aged 56 years, compared to just over 37 years for all adults. The majority of jobs were created for individuals with complete secondary education (1.0 million or 49.1 per cent of net employment growth), and this educational category appears poised to overtake incomplete secondary education as the largest educational category amongst the employed. The increasing share of tertiary educated individuals in employment (up 1.1 percentage points to 15.1 per cent in 2004) in conjunction with the rapid growth amongst individuals with complete secondary education again confirms the structural shift towards higher skilled labour.

3.2 Sectoral, Occupational and Skills Breakdown of Employment Change

While real GDP growth averaged 3.0 per cent annually for the economy as a whole, the experiences of the various sectors within the economy were often quite different. Using real gross value added (GVA) at basic prices as the measure of output, Table 11 presents sectoral economic performance over the post-*apartheid* period ending in 2004. It is clear that it is primarily the tertiary sector that has been responsible for that attainment of three per cent GDP growth over the period. The primary sector grew at an average annual rate of 1.3 per cent and the secondary sector at 2.2 per cent, compared to 3.7 per cent for the tertiary sector as a whole. As a result, of total output expansion between 1995 and 2004, the tertiary sector accounted for 78 per cent, or almost four-fifths, despite only accounting for 63 per cent of total GVA in 1995. All the main primary and secondary sectors accounted for a smaller proportion of output expansion than their original proportions of 1995 output.

Table 11: Sectoral Economic Performance (Gross Value Added), 1995-2004

	1995 (R mil, 2000 prices)	2004 (R mil, 2000 prices)	Change	Share of Change (Percent)	Share of 1995 GVA (Percent)		
			Total 000s	Total (Percent)	Ave. Ann. Rate (Percent)		
Primary	*85 417*	*96 362*	*10 945*	*12.8*	*1.3*	*4.9*	*11.7*
Agric/Forestry/Fishing	20 850	26 926	6 076	29.1	2.9	2.7	2.9
Mining/Quarrying	64 567	69 436	4 869	7.5	0.8	2.2	8.9
Secondary	*181 870*	*220 302*	*38 432*	*21.1*	*2.2*	*17.0*	*25.0*
Manufacturing	140 877	171 563	30 686	21.8	2.2	13.6	19.3
Utilities	20 592	22 521	1 929	9.4	1.0	0.9	2.8
Construction	20 401	26 218	5 817	28.5	2.8	2.6	2.8
Tertiary	*461 113*	*637 355*	*176 242*	*38.2*	*3.7*	*78.1*	*63.3*
Internal Trade	99 994	145 392	45 398	45.4	4.2	20.1	13.7
Transport & Comm.	58 923	103 695	44 772	76.0	6.5	19.8	8.1
Finance	125 955	194 093	68 138	54.1	4.9	30.2	17.3
Gen. Gov. Services	132 945	135 502	2 557	1.9	0.2	1.1	18.3
Personal Services	43 298	58 673	15 375	35.5	3.4	6.8	5.9
Total	*728 400*	*954 019*	*225 619*	*31.0*	*3.0*	*100.0*	*100.0*

Source: SARB (2005), Statistics SA (2004a).

Within the tertiary sectors, it is clear that Transport and Communication, Finance and Internal Trade were the best performing sectors over the period, each growing GVA in excess of four per cent per annum and accounting for a massive 70 per cent of total output expansion. This is particularly impressive given the fact that these three sectors accounted for only 39 per cent of GVA in 1995. Increased output puts upward pressure on labour demand and, hence, increased employment would be a result that is reasonably expected.

This variance in the performance of the different sectors of the economy, because of the differing implications for labour demand at the sectoral level, holds important implications for the ability of individuals and households to benefit from economic growth and for the extent to which accelerated growth will be shared across all groups. Many individuals and households are reliant for their survival on a single sector and, as a result, are particularly vulnerable to poor performance in that sector. Good examples are agriculture and other resource extraction sectors (the primary sector) where output growth has generally lagged behind the average. Conversely, individuals and households that are unable to 'lock' themselves into the tertiary sector through employment may be constrained in their ability to derive direct benefits from the favourable growth performance of these sectors.

The sectoral shift that characterised the output structure of the South African economy from the 1970s through the mid-1990s, from primary and secondary activities to tertiary sector activities, continued after 1995 until the present. Consequently, as is evident from Figure 4, employment growth since 1995 was unevenly distributed between the various sectors, with most growth occurring in the tertiary sector. Tertiary sector employment grew by 1.8 million, representing more than 85 per cent of the net increase in employment over the period.

Within the primary sectors, employment has contracted substantially, losing over 360 000 jobs or one-fifth of the 1995 total of 1.8 million. Both the Agriculture, Forestry and Fishing sector and the Mining and Quarrying sector have lost jobs, the former losing around 173 000 jobs and the latter 188 000 jobs. However, given the difference in the sizes of these two sectors, relative employment contraction has been more severe in the Mining and Quarrying sector at a rate of -4.2 per cent per annum on average as opposed to –1.7 per cent in Agriculture. These trends, though, are continuations of historical trends and not new developments. Secondary sector employment, in contrast, grew by 31.6 per cent over the period, equivalent to an average annual rate of 3.3 per cent. This indicates somewhat of a recent turnaround in this sector. Oosthuizen and Bhorat (2004: 13) found that secondary sector employment grew by a total of 16.0 per cent between 1995 and 2002, or 2.1 per cent per annum, implying a substantial improvement in the employment performance of the secondary sectors in the period since. The largest number of jobs was created in the Construction sector, where employment almost doubled from 446 000 to 824 000, an increase of around 378 000 jobs. On its own, Construction accounted for 17.8 per cent of overall net employment creation over the 1995 to 2004 period. Employment in Manufacturing also expanded, by around 277 000 jobs, equivalent to a rate slightly lower than the overall growth rate, while there was little change in employment in the Utilities sector.

Figure 4: Employment Expansion by Sector, 1995-2004
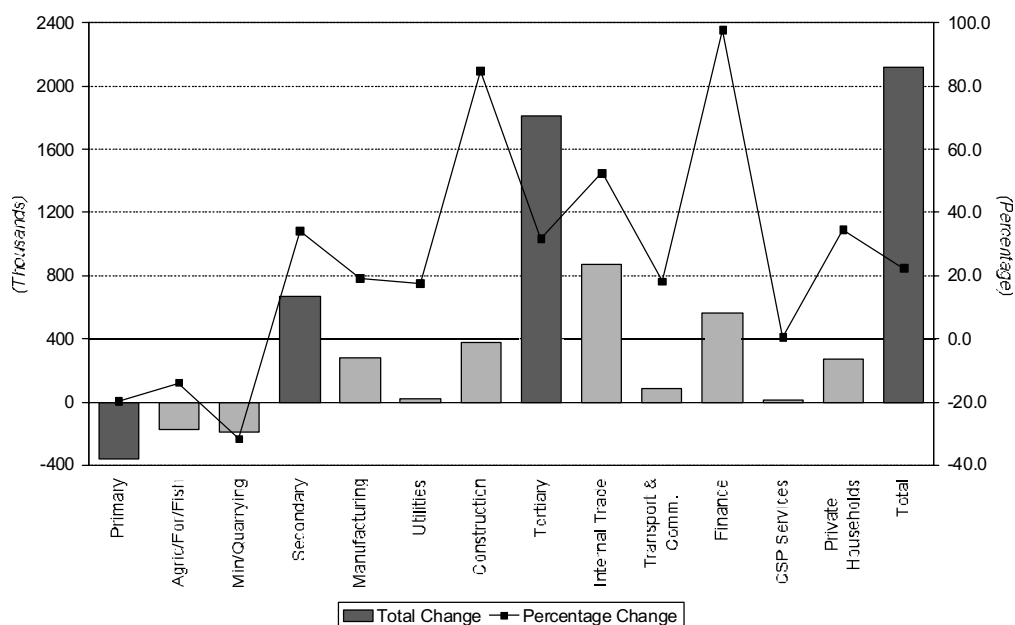
Source: OHS 1995, LFS 2004:2 (Statistics SA).
Notes: 1. Mining figures for 1995 adjusted using official Chamber of Mines figures, given the exclusion of hostel
             dwellers in the 1995 OHS as in Bhorat (2003a).
          2. Individuals whose sectors were insufficiently defined or unspecified, or who are classified as working in the
             Exterior Organisations and Foreign Government sector were omitted.

The bulk of employment expansion between 1995 and 2004 occurred in the tertiary sectors. Together, these sectors added 1.8 million jobs over the period, representing an average annual rate of growth of 3.1 per cent. Three sectors added jobs at a rate higher than the tertiary sector average, namely Finance, Internal Trade and Private Households (i.e. the Domestic Worker sector). Employment in Finance almost doubled over the period, representing an increase of just under 570 000 jobs, while growth in the Internal Trade sector of 870 000 jobs occurred at a rate of 52 per cent or 4.8 per cent annually. The rapid growth of employment of domestic workers between 1995 and 2004 seems contradictory to general perceptions, possibly in part related to an improvement in the ability of the surveys to correctly identify domestic workers. This would be consistent with the decline in employment in Community, Social and Personal Services, of which Private Households would generally form part. While employment expansion in Finance and Internal Trade was most rapid, these sectors also accounted for a net increase of 1.44 million jobs over the period.

Employment changes are closely related to the general and sector-specific economic conditions prevalent during a given period. Thus, one would expect that sectors that experience favourable economic conditions and increasing output would be more likely to create jobs than sectors that face a less favourable set of conditions. In Figure 5, growth in output and growth in employment are related sectorally in a manner that better identifies sectors that have performed best in terms of creating employment. Each of the nine major sectors is represented by a circle in the figure. For each sector, the rate of growth of real gross value added and the rate of sectoral employment growth are used for the co-ordinates of the centre of the relevant circle. The size of each circle represents the relative size of employment in that sector in 1995. Thus a large circle represents a sector employing more people than a smaller circle.

The figure can be divided into four quadrants. The upper right quadrant is characterised by both GVA and employment expansion, while the lower left quadrant will contain sectors where both GVA and employment have been in decline. In the lower right quadrant, GVA is growing but employment is declining, while the opposite is true of the upper left quadrant. Further, the 45° line divides the figure into two sections. The upper section represents points where employment expansion is more rapid than GVA expansion, while the lower section represents points where employment expansion has been slower than GVA growth. Naturally, on this line employment growth and GVA growth are identical. The interpretation of these two areas can be extended further and conclusions may be reached regarding the labour intensity of gross value added and labour productivity. For example, GVA in a sector above the 45° line has become more labour intensive over the period, since employment has grown more rapidly than GVA. Put differently, such a sector will have seen GVA per worker decline over the period. The opposite is true for sectors below the 45° line, which will have seen a decline in the labour intensity of GVA or a rise in GVA per worker.

Most sectors in the South African economy have experienced growth in both GVA and employment over the period. Only three sectors saw declining employment between 1995 and 2004, namely Agriculture, Forestry and Fishing, Mining and Quarrying and CSP Services, despite the fact that GVA growth across all sectors was positive. At the same time, gross value added per worker has risen in five of the nine sectors. In the Finance, Wholesale and Retail Trade, Construction and Utilities sectors, GVA per worker has fallen as employment has grown at a higher rate than has GVA over the period. Interestingly, according to our calculations, GVA per worker has grown fastest in the Mining and Quarrying (72.6 per cent over the period), CSP Services (52.7 per cent) and Transport and Communication (34.3 per cent) sectors, despite (but also related to) the former two being sectors that have shed jobs.

Figure 5: Gross Value Added and Employment Growth by Sector, 1995-2004

Source: OHS 1995, LFS 2004:2 (Statistics SA); SARB (2005).

Notes: 1. Community, Social and Personal Services include domestic workers in Private Households, and individuals whose sectors were insufficiently defined or unspecified, or who are classified as working in the Exterior Organisations and Foreign Government sector.
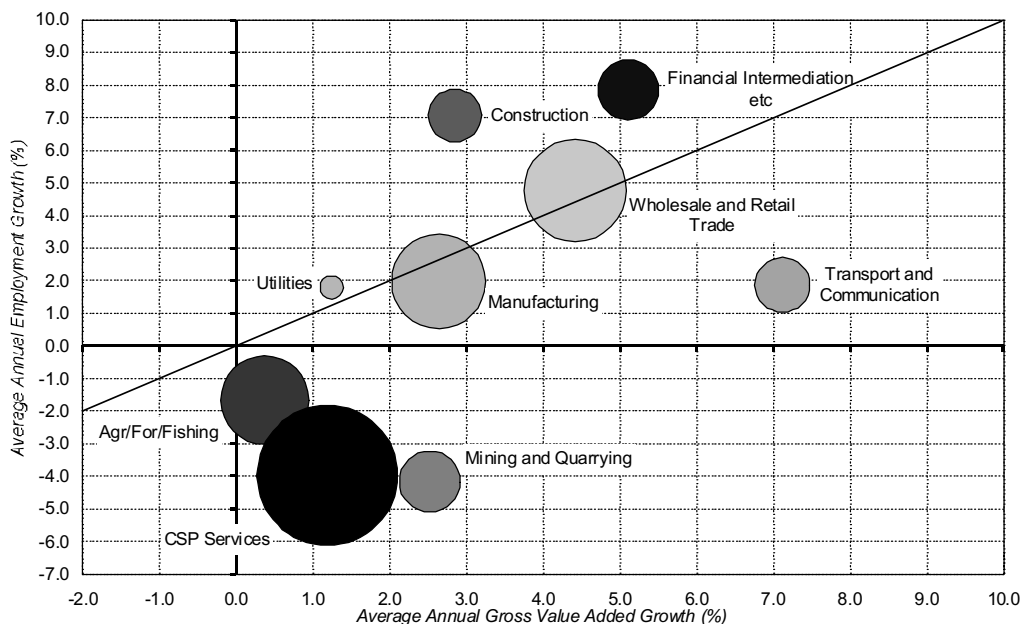
2. GVA data is calculated as a three-year moving average of the SARB's GVA estimates, where possible (for 2004, the value is an average for 2003/2004).

While output expansion or contraction at the sectoral level is an important correlate of sectoral employment change, what is also relevant in terms of labour demand patterns is the particular configuration of skills needs that can be identified within each sector. This provides another important layer in understanding the unevenness of employment growth at the sectoral level. The evidence shows that while different sectors have fared differently in respect to the relationship between output change and employment change, these responses mask significant differences within individual sectors when employment is

divided into skilled, semi-skilled and unskilled employment.[12] Appendix B replicates Figure 5 for the three categories of employment for all the sectors except Mining.[13]

Of the eight sectors, the experience of several indicates a substitution process whereby lower skilled workers are displaced by more skilled workers. This can occur through employment contraction in lower-skilled occupations in the sector or through relatively slower growth amongst these occupations. For example, Agriculture has seen job losses for unskilled workers, accompanied by rapid employment expansion for semi-skilled and skilled workers. In the Utilities sector, both unskilled and semi-skilled workers have experienced job losses, while skilled employment has expanded. There are sectors, though, that have seen the opposite trend, with lower skilled workers increasing their share of sectoral employment. Transport and Communication has seen substantially more rapid growth for lower skilled occupations, as has Internal Trade, Construction and, interestingly, Finance. In the cases of the five fastest growing sectors in terms of GVA, namely Manufacturing, Construction, Internal Trade, Finance and Transport and Communication, employment for all three skills groupings has expanded. This is an important point to highlight: although sectors may be skills biased, this does not preclude them from creating employment across the skills spectrum. Overall, however, it is clear that output growth in various sectors over the past nine years has been accompanied by a continuation of the historical trend of skills-biased employment growth.

Table 12 also documents the changing nature of employment by three broad skills categories at the sectoral level. The national figure reflects a marginal change in the skills profile of employment between 1995 and 2004. This stands in contrast to previous analyses of different time periods (see Oosthuizen and Bhorat 2004, for the 1995-2002 period, and Bhorat 2003a), which revealed more noticeable differences for the three categories. In 2004, there is a slight increase in the proportion of skilled workers within the employed, from 20 per cent to 22 per cent, with semi-skilled workers accounting for 48 per cent of employment in both years and unskilled workers seeing their share fall marginally from 31 per cent to 30 per cent.

---

12   Skilled refers to ISOC codes 1-3; Semi-Skilled refers to ISOC codes 4-8; Unskilled refers to ISOC code 9.

13   This exercise is not possible for the Mining and Quarrying sector due to the fact that the OHS 1995 employment
      data for this sector is unreliable.

Table 12: Skills Breakdown of Employment by Sector, 1995 and 2004

	Year	Skilled	Semi-Skilled	Unskilled	Total
Agriculture, Hunting, Forestry and Fishing	1995	0.01	0.22	0.77	1.00
	2004	0.05	0.42	0.53	1.00
Mining and Quarrying	1995	0.07	0.74	0.18	0.99
	2004	0.07	0.80	0.12	1.00
Manufacturing	1995	0.12	0.68	0.19	1.00
	2004	0.17	0.64	0.19	1.00
Utilities (Electricity, Gas and Water Supply)	1995	0.18	0.67	0.13	0.98
	2004	0.39	0.50	0.10	0.99
Construction	1995	0.09	0.71	0.19	1.00
	2004	0.09	0.68	0.23	1.00
Internal Trade	1995	0.17	0.64	0.20	1.00
	2004	0.14	0.56	0.30	1.00
Transport, Storage and Communication	1995	0.26	0.62	0.11	0.99
	2004	0.23	0.62	0.14	1.00
Financial Intermediation, Insurance, Real Estate and Business Services	1995	0.38	0.56	0.06	1.00
	2004	0.39	0.50	0.11	1.00
Community, Social and Personal Services	1995	0.45	0.39	0.15	0.99
	2004	0.50	0.35	0.15	1.00
Private Households	1995	0.00	0.02	0.97	1.00
	2004	0.00	0.00	1.00	1.00
Total	1995	0.20	0.48	0.31	0.99
	2004	0.22	0.48	0.30	1.00

Source: OHS 1995, LFS 2004:2 (Statistics SA).

Notes: 1. Skilled refers to ISOC codes 1-3; Semi-Skilled refers to ISOC codes 4-8; Unskilled refers to ISOC code 9. Unspecified occupations were omitted from the analysis.

At the sectoral level, however, the experiences are varied. In Agriculture and Mining and Quarrying, employment shifted significantly in favour of semi-skilled occupations and against unskilled occupations. In these sectors, the proportions of semi-skilled workers increased by 20 and six percentage points respectively, while those of unskilled workers declined by 24 and six percentage points. In Manufacturing, Utilities and CSP Services, the pattern was one of skilled jobs displacing semi-skilled jobs and sometimes unskilled jobs too. In contrast, in the Construction, Internal Trade, Transport and Communication and Finance sectors, unskilled employment grew more rapidly than other types of employment, resulting in an increase in the proportion of unskilled workers in these sectors. In Construction, the share of unskilled employment rose by four percentage points to 23 per cent in 2004, at the cost of the share of semi-skilled employment. In Internal Trade, the share of unskilled employment grew by ten percentage points to 30 per cent, at the cost of the shares of both skilled and semi-skilled employment. In the Finance sector, semi-skilled workers have seen their share of employment decline in the face of the rising shares of employment of both skilled and unskilled workers.

Pressures on the South African stock of skills are likely to continue to mount in the near future, as several of the sectors with the fastest employment expansion (e.g. Finance and Construction) are also increasing their employment of skilled and/or semi-skilled workers relative to unskilled workers. Internal Trade, while the third fastest growing sector in terms of

employment, has seen a rise in the proportion of unskilled workers at the cost of employment of more highly skilled workers. This highlights the impact that informal sector growth has on aggregate employment data. Since informal vendors are classified as part of the Internal (or Wholesale and Retail) Trade sector, informal sector growth has resulted in a deterioration in the skills profile of this sector. Similarly, the two sectors where total employment has fallen over the period, namely Agriculture and Mining and Quarrying, are cutting unskilled jobs at a higher rate than skilled and semi-skilled jobs, as is evident from the shift in the skill composition of employment.

The above indicates a dual challenge for the domestic economy, in terms of producing an adequate economic growth strategy. Firstly, there is the challenge of sustaining, and raising, the current higher rates of economic growth and output expansion. Secondly, though, it remains likely that the nature of labour uptake as a result of economic growth will continue: namely the disproportionate uptake of semi-skilled and skilled workers, relative to unskilled workers. This unevenness of growth requires the upgrading of supply characteristics of those individuals entering the labour market each year in search of employment.
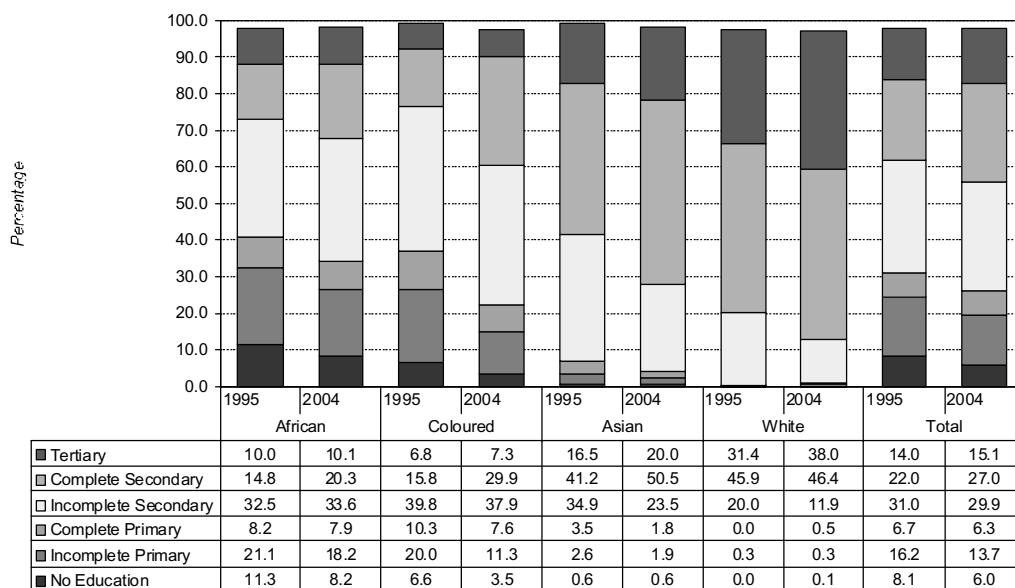
The skills levels of the employed are largely reflected in breakdowns of employment by individuals' level of education (Figure 6). Six educational categories are presented, namely no education, incomplete primary, completed primary, incomplete secondary, completed secondary and tertiary education. Here again the apartheid legacy is easily discernible. White workers are, in general, much better educated on average. In 1995, more than 31 per cent had a tertiary qualification, while a further 46 per cent had completed matric. This meant that very few employed Whites have lower levels of education. The profile of White employment has also shifted markedly between 1995 and 2004. The proportion of employed Whites with tertiary education grew to 38 per cent, while the proportion with incomplete secondary education or less declined substantially from just over 20 per cent to just under 13 per cent.

Overall, the pattern of Asian employment in the figure most closely resembles that of White employment, although there are marked differences between the two. Specifically, amongst Asian workers there are, relative to White workers, fewer with tertiary education and significantly more with complete and incomplete secondary education. The 1995-2004 period has seen an increase of around nine percentage points in the share of employment of Asians with matric certificates, with falls in the share of workers with less than matric education.

The patterns of African and Coloured employment are quite similar and differ markedly from the other two population groups. African and Coloured employment, in line with the skills profile of the labour force, consists of large proportions of individuals with education levels ranging from no education at all to incomplete secondary education. These categories represented almost 70 per cent of African employment and around 63 per cent of Coloured employment in 2004. A larger proportion of Coloured workers have matric certificates, relative to Africans in both years, while relatively more employed Africans have tertiary education. While both groups have seen increases in the proportions of workers with higher

levels of education, the increase has been more pronounced for Coloureds. Specifically, the proportion of Coloured workers with completed secondary education almost doubled from 15.8 per cent in 1995 to 29.9 per cent in 2004, while that of African workers increased from 14.8 per cent to 20.3 per cent.

Figure 6: Educational Breakdown of Employed by Race (Percentage), 1995 and 2004

	African 1995	African 2004	Coloured 1995	Coloured 2004	Asian 1995	Asian 2004	White 1995	White 2004	Total 1995	Total 2004
■ Tertiary	10.0	10.1	6.8	7.3	16.5	20.0	31.4	38.0	14.0	15.1
▨ Complete Secondary	14.8	20.3	15.8	29.9	41.2	50.5	45.9	46.4	22.0	27.0
□ Incomplete Secondary	32.5	33.6	39.8	37.9	34.9	23.5	20.0	11.9	31.0	29.9
▨ Complete Primary	8.2	7.9	10.3	7.6	3.5	1.8	0.0	0.5	6.7	6.3
▨ Incomplete Primary	21.1	18.2	20.0	11.3	2.6	1.9	0.3	0.3	16.2	13.7
■ No Education	11.3	8.2	6.6	3.5	0.6	0.6	0.0	0.1	8.1	6.0

Source: OHS 1995, LFS 2004:2 (Statistics SA).

Overall in 2004, 15 per cent of the employed had a tertiary qualification, 27 per cent had a matric certificate and a further 30 per cent had incomplete secondary education. Thus, 42 per cent of the employed had a complete secondary or tertiary education, up from 36 per cent in 1995. At the same time, the proportion of workers with a primary education or less fell slightly from 31 per cent in 1995 to 26 per cent in 2004. The education levels of the employed as a group have changed since 1995, with a larger proportion of workers with tertiary and completed secondary educations. However, changing education levels amongst the employed are a manifestation of demand trends rather than supply trends and before judgement can be passed on whether the South African population is adjusting to the greater demand for more highly skilled workers, attention must be focussed on education levels amongst the unemployed as well. If similar changes have occurred amongst the unemployed, then this adjustment is likely to be occurring.

3.3 Formal and Informal Sector Employment

The distribution of jobs between the formal and informal sectors is an important question in South Africa, as expressed in the 'two economies' discussion. Further, because of their vulnerable and unprotected positions, informal sector workers are arguably less likely to reap the full benefits of increased economic activity. Unfortunately, however, the differentiation between formal and informal sector employment is a difficult task, both in South Africa and internationally. This is due to a number of reasons, such as the fact that individuals may not always view their informal sector activities as work. Furthermore, surveys that aim to provide estimates of the size of the informal sector are almost certain to underestimate the importance of the sector, not least because of the overlap between the informal sector and illegal economic activities.

In South Africa, survey estimates of the size of the informal sector are often incomparable because of the evolution of the questions that attempt to identify informal sector employment. As a consequence, for example, the 1995 survey is unable to provide a reliable estimate of the magnitude of informal employment. Improved questions designed to pick up informal work have enabled the LFSs to better distinguish between the formal and informal sectors. Estimates of these sectors are provided in Table 13. According to the LFSs, around 20 per cent of total employment in South Africa is to be found in the informal sector, a share that appears to have remained relatively stable since 2001. In 2004, approximately 2.4 million workers were engaged in informal sector employment, slightly up on the numbers in previous years.

Table 13: Formal and Informal Sector Employment, 2000-2004

	Formal Sector (900s)	*Informal Sector (>000s)*	*Domestic Workers (900s)*	*Total (>000s)*	*As a Share of Total Employment*		
					Informal Sector	*Domestic Workers*	*Total Non-Formal*
LFS 2000: 2	7 509	2 899	999	11 713	24.7	8.5	33.3
LFS 2001: 2	7 539	2 232	916	10 829	20.6	8.5	29.1
LFS 2002: 2	7 845	2 223	875	11 029	20.2	7.9	28.1
LFS 2003: 2	8 292	2 249	1 023	11 622	19.4	8.8	28.2
LFS 2004: 2	8 318	2 372	881	11 643	20.4	7.6	27.9

Source: Own calculations, various LFSs (Statistics SA).
Notes: 1. Total employment includes domestic workers and those with unknown/unspecified sectors.
              2. Total non-formal employment refers to the sum of the informal and the domestic worker sectors.

These figures have separated domestic workers from the formal and informal sectors, as the fit between domestic workers and the formal or informal sectors is not perfect. In 2004, there were approximately 881 000 domestic workers in South Africa, representing 7.6 per cent of total employment. This proportion is marginally lower than the proportions in previous years. Differentiating between the formal sector on the one hand and the non-formal sector on the

other hand, approximately 28 per cent of employment can be regarded as non-formal employment in 2004. In comparison with previous years, it appears that formal sector employment is gradually displacing non-formal sector employment, in contrast to general perceptions as to the performance of formal sector employment vis-à-vis non-formal sector employment. This can be seen in the declining proportion of total non-formal employment within total employment, which fell from 33.3 per cent in 2000 to 27.9 per cent in 2004.

3.4 Summary

This section has focussed on national employment trends between 1995 and 2004. Although growth in the South African economy during the post-*apartheid* period is often termed 'jobless', national household survey data has revealed this characterisation to be incorrect. Total employment, as recorded in the 1995 OHS and the September 2004 LFS, increased by 2.1 million people over the period, at an average annual rate of 2.3 per cent compared to average economic growth of 3.0 per cent per annum. Consequently, jobless growth cannot be said to have characterised the post-*apartheid* South African economy.

Employment growth over the period was concentrated in the tertiary sectors, which were also responsible for the bulk of output growth, with the greatest absolute increases having occurred in the Internal Trade and Finance sectors. However, employment in the Construction sector also expanded rapidly, representing the third largest increase in absolute terms and the second largest in percentage growth terms. On aggregate, employment growth in the secondary sectors was moderate in absolute terms (although similar in percentage growth terms to tertiary sector employment growth), while jobs were shed in both primary sectors. The rapid increase in employment in the Internal Trade sector provides some handle on employment change in parts of the informal sector, since this sector includes informal sector traders and other such groups. The skills bias of total employment growth, using occupational categories, was not as pronounced as previous studies found, although in terms of the education levels of the employed, the trend is clearer.

A worrying trend observed in section is that, while 15 to 24 year olds accounted for 11.8 per cent of employment in 1995, only 7.6 per cent of the net increase in employment accrued to this age-group. Similarly, 12.7 per cent of net employment increase that accrued to 35 to 44 year olds compares poorly with this age-group's 30.1 per cent share of total employment in 1995. In total, almost half of net new jobs accrued to 45 to 65 year olds, while individuals in this age-group accounted for less than one-quarter of employment in 1995. Unless individuals in the other age-groups are remaining out of the labour force in greater numbers, unemployment for these groups is likely to rise.

In terms of the objective of ensuring that growth is shared by all members of society, the findings presented above highlight some important issues for consideration. Firstly, overall economic growth figures obscure the varying experiences at a sectoral level and it is not

unreasonable to expect that this would be true at the sub-sectoral level. As a result, individuals employed in these sectors and the households that they belong to are likely to differ in their abilities to benefit from broad economic growth. In particular, ensuring that growth is shared will meet challenges in situations where individuals are employed or solely employable in declining sectors. Secondly, via its impact on labour demand, economic growth at the sectoral level may not be 'substitutable', i.e. growth in a specific sector is not necessarily equivalent to growth in another. This is due to the differing skills composition of employment change, with some sectors growing employment in highly skilled occupational categories and others growing skills in lower skilled categories. If growth is concentrated in skills-intensive sectors, it will be more difficult to ensure that such growth is shared, given the current skills shortage in South Africa.
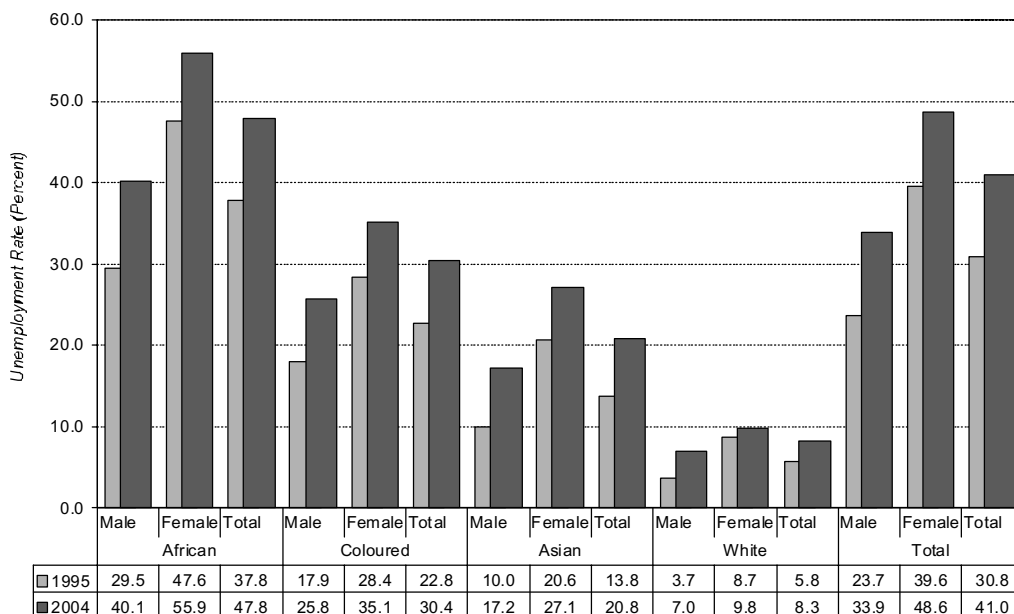
4. Unemployment

In order to be effective, labour market policy aimed at addressing the problem of unemployment in South Africa needs to be informed as to the characteristics of this part of the labour force. Further, the objective of shared growth is more difficult to attain if individuals are systematically excluded from employment due to a certain characteristic, whether it be discrimination or, for example, the lack of skills. In this section, the most important attributes of the broadly unemployed are presented.

4.1 Demographic Characteristics of the Unemployed

In section 2.1, it was shown that the rate of broad unemployment rose dramatically between 1995 and 2004, from 30.8 per cent to 41.0 per cent of the labour force, to 7.9 million unemployed individuals between the ages of 15 and 65 years. However, it was also noted that the unemployment rate in 2004 was slightly off its highest levels, indicating that the broad unemployment rate may be stabilising. In terms of race and gender, the picture is very consistent with all race-gender groups experiencing higher rates of unemployment in 2004 than in 1995, and females being more often unemployed than males (Figure 7). The highest rates of unemployment are experienced by African labour force members at almost 48 per cent in 2004, up ten percentage points since 1995. Unemployment rates amongst the other races are significantly lower at 30.4 per cent, 20.8 per cent and 8.3 per cent for Coloureds, Asians and Whites respectively in 2004. All race groups have seen a rise in unemployment rates over the period.

Figure 7: Unemployment Rates by Race and Gender, 1995 and 2004

	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
		African			Coloured			Asian			White			Total	
1995	29.5	47.6	37.8	17.9	28.4	22.8	10.0	20.6	13.8	3.7	8.7	5.8	23.7	39.6	30.8
2004	40.1	55.9	47.8	25.8	35.1	30.4	17.2	27.1	20.8	7.0	9.8	8.3	33.9	48.6	41.0

Source: OHS 1995, LFS 2004:2 (Statistics SA).

Note: 1. Standard errors may be found in Appendix C.

Within each race-group, females experience higher unemployment rates than do males. In 2004, nearly 56 per cent of African females were unemployed, more than any other group. They are followed by African males, two-fifths of whom were unemployed in 2004 and who are the race-gender group with the largest percentage point increase in unemployment (more than ten percentage points). Coloured females and Asian females are the next most likely individuals to be unemployed. At the other end of the spectrum, the lowest unemployment rates were experienced by White males and females (7.0 per cent and 9.8 per cent respectively in 2004).

The distribution of unemployment across race and gender has remained relatively constant between 1995 and 2004 (Table 14). Females, with their higher unemployment rates, account for around 57 per cent of total unemployment. This is quite a large proportion seeing that their share of the labour force was about 48 per cent in 2004 and only 45 per cent in 1995. Similarly, almost nine in ten unemployed people are African, five of whom are female. Asian and Whites make up less than four per cent of the unemployed, while Coloureds constitute around seven to eight per cent. What is clear from this is that unemployment is concentrated amongst African members of the labour force in general and African females in particular.

Table 14: Distribution of Unemployment by Race and Gender (Percent Shares), 1995 and 2004

	1995			*2004*		
	Male	*Female*	*Total*	*Male*	*Female*	*Total*
African	37.4	50.6	88.0	38.2	51.1	89.3
Coloured	3.4	4.6	8.0	3.0	4.0	7.0
Asian	0.6	0.7	1.4	0.7	0.7	1.4
White	1.0	1.7	2.7	1.1	1.2	2.3
Total	42.5	57.5	100.0	43.0	56.9	100.0

Source: OHS 1995, LFS 2004:2 (Statistics SA).

As mentioned already, rural-urban analysis is no longer directly possible in the LFSs and it is not possible to determine whether rural or urban areas experience higher rates of unemployment. However, Oosthuizen and Bhorat (2004: 21) found that unemployment rates in urban areas are generally lower than in rural areas, with 37 per cent of urban labour force members unemployed in 2002, as opposed to nearly 50 per cent of rural labour force members, and that the gap had widened since 1995. Provincially, unemployment varies substantially, being in part a reflection of these urban-rural differences (Table 15). The Western Cape has the lowest unemployment rate in both 1995 and 2004. At 26.3 per cent, it is ten percentage points lower than the unemployment rate of Gauteng, which has the second lowest rate of unemployment. Several provinces have seen statistically significant increase in their unemployment rates. These are the Northern Cape (up to 39.3 per cent in 2004), the Free State (39.1 per cent), KwaZulu-Natal (43.7 per cent), the North-West (47.5 per cent), Gauteng (36.7 per cent) and Limpopo (54.3 per cent).

The provinces' differing histories under apartheid also seem to have influenced unemployment rates. Specifically, provinces that include areas previously designated as 'homelands' or 'self-governing territories' under the apartheid system have higher rates of unemployment than other provinces. In 2004, the highest rates of unemployment were to be found in Limpopo (54 per cent), the North-West (48 per cent) and the Eastern Cape (46 per cent). It is therefore clear that previous governments' neglect of homeland areas continues to manifest itself in high levels of unemployment in those areas, while economic decentralisation policies seem to have had a limited effect on unemployment rates in these areas.

Table 15: Unemployment by Location, 1995 and 2004

	1995	*2004*
Western Cape	20.0 (16.255, 23.709)	26.3 (22.598, 30.067)
Eastern Cape	42.6 (38.052, 47.095)	46.1 (43.589, 48.532)
Northern Cape	29.5 (24.529, 34.476)	39.3 (35.631, 42.894)
Free State	26.8 (24.385, 29.245)	39.1 (35.283, 42.931)
KwaZulu-Natal	34.3 (30.018, 38.68)	43.7 (41.189, 46.298)
North-West	33.8 (27.065, 40.515)	47.5 (44.015, 50.909)
Gauteng	24.1 (20.09, 28.058)	36.7 (34.141, 39.302)
Mpumalanga	34.7 (30.145, 39.238)	40.1 (37.025, 43.145)
Limpopo	42.2 (34.954, 49.429)	54.3 (51.281, 57.419)
Total	30.8 (28.845, 32.792)	41.0 (39.891, 42.065)

Source: OHS 1995, LFS 2004:2 (Statistics SA).
Notes: 1. Figures in parentheses are 95 per cent confidence intervals, corrected according to frequency weights, the primary sampling unit and, in the case of 2004, sampling stratification.

An individual's level of education has been found to be an important indicator of whether he or she is unemployed or not. The South African economy's increasing appetite for highly skilled labour, its continued mechanisation of manufacturing and industrial processes and its pursuit of international competitiveness means that lower skilled and poorly educated workers are likely to bear the brunt of unemployment (Bhorat 2003a, 2003b, Oosthuizen 2003). This is clear from Table 16, which presents unemployment rates by individuals' highest level of education. What is immediately evident is that unemployment rates have increased across every education category over the period. Higher than average rates of unemployment were experienced in both periods by individuals in the four categories below matric. By 2004, one in two individuals in the labour force with incomplete secondary education were unemployed (up from 35.5 per cent in 1995), while two in five labour force members with matric certificates were unable to find employment (up from 27.0 per cent). The former group numbers around 3.5 million individuals and constitutes more than 43.8 per cent of the unemployed. High levels of unemployment amongst those with matric certificate are particularly disturbing in that although education (with a matric certificate being considered an important goal for learners) is promoted as a 'ticket' to a job and a better life, the unemployment rate amongst matriculants has increased by 12 percentage points, or almost 50 per cent. Thus, in 2004, 2.0 million of the 8.1 million individuals without a job (25.0 per cent) were holders of matric certificates. The rise in the unemployment rates of matric certificate holders again points to issues of quality, whether perceived or actual: in a

skills-scarce economy, individuals that should be regarded as relatively skilled should not be experiencing rapidly rising unemployment rates.

Table 16: Unemployment Rates by Highest Level of Education, 1995 and 2004

	1995	*2004*
None	34.7 *(30.774, 38.576)*	34.4 *(31.667, 37.094)*
Incomplete Primary	36.9 *(34.105, 39.63)*	44.7 *(42.877, 46.457)*
Complete Primary	37.3 *(34.592, 40.051)*	44.9 *(42.323, 47.529)*
Incomplete Secondary	35.5 *(33.546, 37.442)*	50.4 *(49.1, 51.767)*
Complete Secondary	27.0 *(24.481, 29.572)*	39.1 *(37.36, 40.879)*
Tertiary	6.6 *(5.491, 7.715)*	10.4 *(8.976, 11.894)*
Total	30.8 *(28.845, 32.792)*	41.0 *(39.891, 42.065)*

Source: OHS 1995, LFS 2004:2 (Statistics SA).
Notes: 1. Figures in parentheses are 95 per cent confidence intervals, corrected according to frequency weights, the primary sampling unit and, in the case of 2004, sampling stratification.

Tertiary educated individuals are least often unemployed, although unemployment for this group has risen substantially from 6.6 per cent in 1995 to 10.4 per cent in 2004. This is a statistically significant increase, although it is down from the 2002 level of 14.6 per cent. In total in 2004, approximately 204 000 members of the labour force with tertiary education were unemployed, representing less than 2.5 per cent of the unemployed.

The persistence of inequality in terms of access to employment by individuals of different racial groups is evident from Table 17, which presents unemployment rates for individuals with completed tertiary and completed secondary education according to their race. Amongst tertiary educated members of the labour force, Africans have the highest unemployment rates, followed by Coloureds, Asians and Whites in that order. In 1995, at 10.1 per cent, the unemployment rate amongst African graduates was four times that of Whites, while in 2004 it was more than six times higher (18.1 per cent *vs.* 2.8 per cent). At the same time, the gap between African graduates and non-African graduates generally widened, with unemployment rates amongst Coloured and Asian graduates declining slightly (although these declines are not statistically significant). However, while tertiary unemployment rates amongst Africans, Coloureds and Asians were not statistically different from each other in 1995, that of Africans was statistically different from those of Coloureds and Asians in 2004. Similarly, unemployment rates amongst matriculants were highest for African labour force members, rising from 42.1 per cent in 1995 to 52.2 per cent in 2004, far higher than any other race group. Coloured matriculants experience the second-highest

unemployment rate, which at 22.5 per cent in 2004 is about 30 percentage points lower than that of Africans. Again, White matriculants are most likely to find employment, with around 90 per cent of them able to do so in 2004. In the cases of unemployment amongst graduates of both secondary and tertiary education, it is the rapid rise of African unemployment rates that drives the national unemployment rates for these groups.

Table 17: Secondary and Tertiary Unemployment Rates by Race, 1995 and 2004

|		*African*	*Coloured*	*Asian*	*White*	*Total*
Complete Secondary	1995	42.1 *(38.752, 45.397)*	20.3 *(17.038, 23.626)*	13.7 *(8.677, 18.688)*	4.9 *(3.922, 5.964)*	27.0 *(24.481, 29.572)*
	2004	52.2 *(50.403, 53.978)*	22.5 *(18.701, 26.222)*	20.1 *(13.858, 26.254)*	10.1 *(8.053, 12.088)*	39.1 *(37.36, 40.879)*
Tertiary	1995	10.1 *(7.896, 12.331)*	8.3 *(4.769, 11.903)*	5.6 *(2.92, 8.272)*	2.5 *(1.583, 3.346)*	6.6 *(5.491, 7.715)*
	2004	18.1 *(15.74, 20.508)*	4.2 *(1.822, 6.605)*	3.5 *(0.793, 6.14)*	2.8 *(1.716, 3.817)*	10.4 *(8.976, 11.894)*

Source: OHS 1995, LFS 2004:2 (Statistics SA)

Notes: 1. Figures in parentheses are 95 per cent confidence intervals, corrected according to frequency weights, the primary sampling unit and, in the case of 2004, sampling stratification.

It is clear that White individuals with completed secondary or tertiary educations are more likely to find employment than similarly qualified individuals of different race groups. This difference may often be linked to employers' perceptions of the quality of a certain individual's education. Specifically, potential workers who have qualifications from previously disadvantaged educational institutions are likely to find themselves the victims of perceptions of poorer quality education, thus hampering their ability to compete in the labour market.

The growth of joblessness amongst tertiary educated individuals stands in sharp contrast to the stated structural shifts in the South African economy towards more highly skilled labour. However, the group of tertiary educated individuals includes individuals with a variety of qualifications, including, for example, diplomas with or without a matric, technikon qualifications, NTCI to NTCIII, as well as university degrees. In Table 18, unemployment rates for degreed African and White workers are presented.[14]

14   Note that in the OHS 1995, there is only a category for a university degree, whereas in the September 2002 LFS, this is split into a degree and a 'post-graduate degree or diploma'. We combined these two categories from the September 2004 LFS to enable a comparison with the 1995 figures.

Table 18: Unemployment of Degreed African and White Workers, 1995 and 2004

		African	*White*	*Total*
1995	Thousands	9.5	6.0	18.0
	Unemployment Rate	6.2 *(2.953, 9.347)*	2.3 *(1.234, 3.438)*	3.9 *(2.631, 5.142)*
2004	Thousands	25.1	8.4	35.6
	Unemployment Rate	8.5 *(5.715, 11.258)*	2.0 *(0.695, 3.378)*	4.5 *(3.126, 5.913)*
Change	Thousands	15.6	2.4	17.6
	Growth (%)	164.0	39.6	97.8

Source: OHS 1995, LFS 2004:2 (Statistics SA)

Notes: 1. Figures in parentheses are 95 per cent confidence intervals, corrected according to frequency weights, the
primary sampling unit and, in the case of 2004, sampling stratification.
2. The total column includes individuals of all races.

It is immediately evident that degreed workers are substantially less likely to be unemployed than other individuals in the tertiary education category, with the unemployment rate amongst the former, at 4.5 per cent, less than half the rate of the latter in 2004. However, although the number of degreed unemployed individuals rose rapidly between 1995 and 2004, the unemployment rates are not statistically significant. This finding differs from Oosthuizen and Bhorat (2004) who found substantial increases in the unemployment rates of Africans in particular between 1995 and 2002, and may indicate that the uptake by employers' of African graduates has improved since 2002. As was seen earlier, unemployment rates differ markedly by race. White degreed unemployment was virtually unchanged over the period at slightly over two per cent, with little change in absolute terms. In contrast, the number of unemployed Africans with degrees more than doubled from under ten thousand to around 25 000 over the period, although there was no statistically significant change in the unemployment rate. Consequently, while Africans accounted for slightly over half of degreed unemployment in 1995, this proportion had risen to 70 per cent in 2004. These figures therefore suggest that the prediction of the "beginning of a graduate unemployment problem in South Africa" by Oosthuizen and Bhorat (2004), based on the LFS of September 2002, and by Bhorat (2003a), may in fact be less of a problem with degreed jobseekers and more one of jobseekers with diplomas and certificates and other non-degree qualifications.

As noted earlier, the South African economy has been unable to absorb sufficient numbers of new labour market entrants into employment, despite employment growth having been adequate given economic growth. Analysis of the number of employed and unemployed labour force participants shows that is particularly amongst younger individuals that

absorption has been too low (Figure 8). The largest increase in the number of unemployed individuals has clearly been amongst youth below the age of 35 years. Of the total increase in unemployment between 1995 and 2004, those aged between 18 and 25 years account for 41 per cent, while those aged 26 to 35 account for a further 34 per cent. The number of unemployed 18 to 35 year olds doubled over the period from 2.89 million in 1995 to 5.71 million in 2004. When it is considered that the total number of individuals in this age-group increased by 2.4 million (from 12.1 million in 1995 to 14.5 million in 2004), the extent of the problem becomes clear. Admittedly, there is a certain degree of frictional unemployment amongst younger labour force members, as they move into and out of education institutions. However, this is unlikely to be a significant proportion of total unemployment numbers.

Figure 8: Broad Unemployment by Age, 1995 and 2004
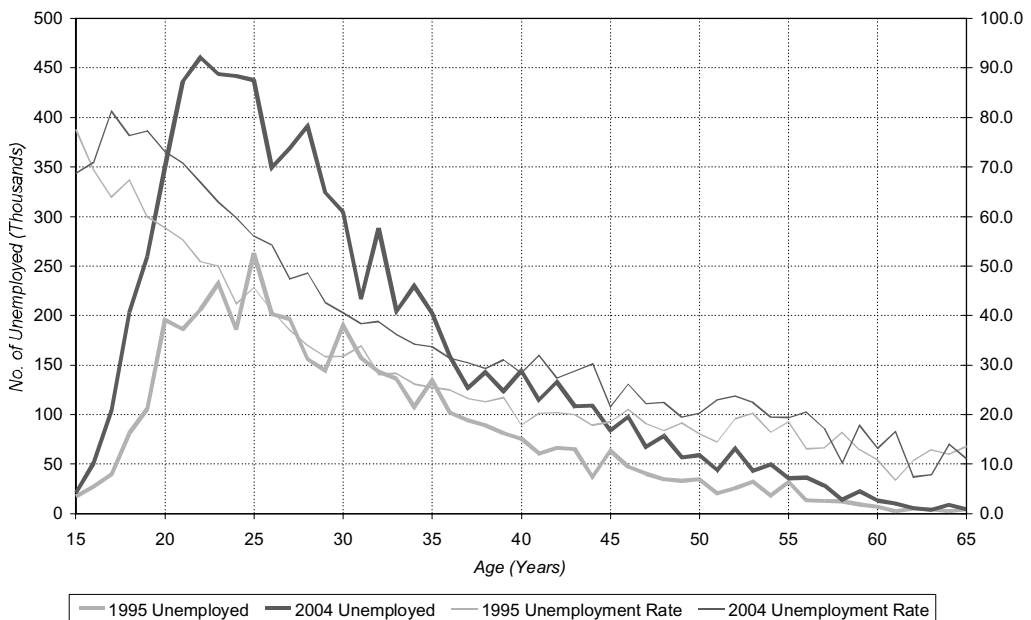
Source: OHS 1995, LFS 2004:2 (Statistics SA).

While unemployment rates have increased for virtually every age-group between 1995 and 2005, the increases have been particularly large for 19 to 29 year olds and range between ten and 18 percentage points. In 2004, unemployment amongst 15 to 19 year olds was 76.7 per cent, with broad unemployment rates falling below the average rate of 41.8 per cent for individuals in the 30 to 34 year age-group and above. The specific age at which the unemployment rate falls below the average rate of 41.8 per cent is 30 years. In 1995, broad unemployment rates were below the average of 30.8 per cent for individuals aged 32 years

and older. Table 19 presents unemployment rates for the five main age-groups. The pattern of falling rates of unemployment as age increases is again confirmed. In 2004, the unemployment rate for 15 to 24 year olds was 68.3 per cent, falling to 30.3 per cent for 35 to 44 year olds and to 15.5 per cent amongst 55 to 65 year olds. This reflects a similar pattern to that in 1995, although all at higher levels respectively. The increases in unemployment rates for each group are all statistically significant, except amongst 55 to 65 year olds.

Table 19: Unemployment Rates by Age-group, 1995 and 2004

	15 to 24 yrs	*25 to 34 yrs*	*35 to 44 yrs*	*45 to 54 yrs*	*55 to 65 yrs*	*Total*
1995	53.1 *(50.248, 56.038)*	34.1 *(31.696, 36.468)*	22.0 *(20.291, 23.699)*	18.1 *(16.351, 19.849)*	14.0 *(12.019, 15.962)*	30.8 *(28.845, 32.792)*
2004	68.3 *(66.650, 69.887)*	44.1 *(42.544, 45.675)*	30.3 *(28.889, 31.772)*	22.2 *(20.688, 23.676)*	15.5 *(13.714, 17.357)*	41.0 *(39.891, 42.065)*

Source: OHS 1995, LFS 2004:2 (Statistics SA).

Notes: 1. Figures in parentheses are 95 per cent confidence intervals, corrected according to frequency weights, the primary sampling unit and, in the case of 2004 sampling stratification.

The differences in the age profiles of the employed and the unemployed are manifest in mean and median age statistics. The average employed person in 1995 was 36 years and 8 months old, compared to only 30 years and 9 months for the broadly unemployed[15], a difference of almost six years. In 1995 the median age of an employed individual was 35 years, as opposed to 29 years for the unemployed. These median ages changed to 36 years and 28 years respectively in 2004, implying a possible widening of the age gap between the employed and the unemployed. This difference in ages may be related to the high proportion of young people who have left school and other educational institutions amongst the unemployed. It also appears that individuals in their fifties and sixties who do not have employment, may often opt out of the labour force instead of remaining unemployed and hence the low unemployment rates amongst this group.
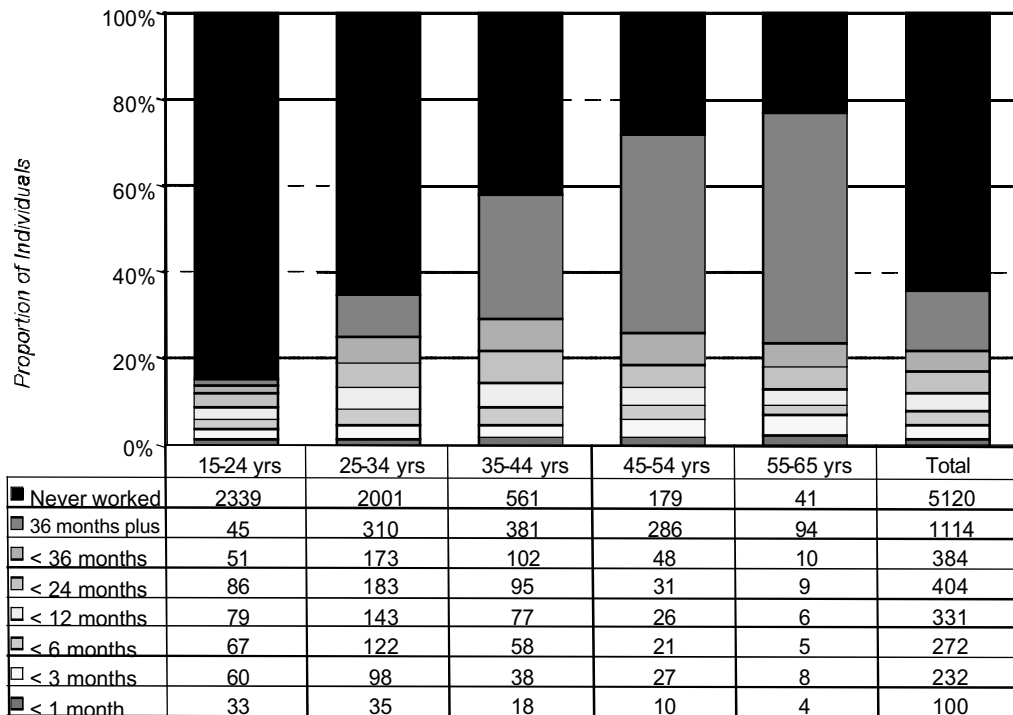
The final aspect of unemployment investigated here is the length of time that unemployed individuals have been without work. Figure 9 presents this according to the age-group for all broadly unemployed individuals in 2004. It is clear that a substantial proportion of the unemployed have never had a job. Almost two-thirds of all the unemployed, irrespective of

---

15   Interestingly, the average age of the unemployed is not statistically different whether the unemployed are defined according to the official (narrow) or broad definitions, indicating that there is no correlation between the decision to stop looking for work and an unemployed individual's age.

age, have never been employed. This is particularly true of younger individuals and the overall proportion that has never had work is driven by their experience due to their numerical dominance. Thus, almost 85 per cent of unemployed individuals aged 15 to 24 years have never had a job, as have 65 per cent of 25 to 34 year olds. This should not be unexpected, given that younger individuals are more likely to have entered the labour force relatively recently and have had less time to have held at least one job in the past.

Figure 9: Length of Time since Individual Last Worked, 2004

	15-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-65 yrs	Total
■ Never worked	2339	2001	561	179	41	5120
▨ 36 months plus	45	310	381	286	94	1114
▨ < 36 months	51	173	102	48	10	384
▨ < 24 months	86	183	95	31	9	404
▨ < 12 months	79	143	77	26	6	331
▨ < 6 months	67	122	58	21	5	272
▨ < 3 months	60	98	38	27	8	232
▨ < 1 month	33	35	18	10	4	100

Source: LFS 2004:2 (Statistics SA).

However, greater proportions of older individuals have been without work for relatively long periods of time. So, 94 000 unemployed individuals between the ages of 55 and 65 years last had a job more than three years prior to the survey, equivalent to 53 per cent. Similarly, 46 per cent and 29 per cent of individuals in the 45 to 54 year and 35 to 44 year age-groups had not been employed for more than three years. Of course, this does not necessarily mean that these individuals have been *unemployed* for more than three years (lack of employment is not equivalent to unemployment since individuals may have exited the labour force). Nevertheless, this figure confirms that long-term unemployment is likely to be an important

characteristic of unemployment in South Africa, with critical implications for job creation and poverty reduction strategies.

Labour force growth in South Africa since 1995 has been rapid, outpacing population growth and rendering the labour market incapable of absorbing labour force members into employment. This has resulted in a substantial increase in broad (and narrow) unemployment between 1995 and 2004. Broad unemployment rose 10.2 percentage points to 41.0 per cent, with increases recorded for both males and females as groups, and within race groups. Africans, and African females in particular, have far higher unemployment rates than any other group. In fact, around nine-tenths of the unemployed nationally are African. Locationally, the provinces of Limpopo, the Eastern Cape and the North-West have the highest unemployment rates. However, even the Western Cape, where broad unemployment is around 26 per cent, the lowest provincial rate in the country, has very high unemployment by international standards.

Perhaps the most disturbing trend uncovered in this section is the rising number of educated unemployed people, particularly since the South African economy is skills constrained. Unemployment amongst tertiary and high school educated individuals is significantly higher in 2004, with the tertiary educated unemployment rate increasing substantially from 6.6 per cent to 10.4 per cent over the period. The relatively large jump in tertiary educated unemployment is due largely to the rapid increase in the number of unemployed African graduates, specifically those with non-degree qualifications. Variation in unemployment rates along racial lines indicates that, across races, graduates differ or are perceived to differ resulting in varying probabilities of employment. Such differences may range from employers' perceptions of differences in the quality of qualifications, which may be real or not and are related to the institutions attended, to the mix of graduates' fields of study within individual race groups. Importantly, monitoring of the Higher Education system should remain a critical component of employment promoting strategies.

4.2 Household Attachment and the Unemployed

In the absence of a fully-developed social security system, it seems that for unemployed individuals an important source of resources would be the households in which they find themselves. However, there is a critical question surrounding the ability of these households to provide support to their unemployed members. Hence, the focus in this section is the analysis of the characteristics of households in which the unemployed find themselves.

A large proportion of the broad unemployed are members of households with few or no wage-earners, and this proportion has increased over the 1995-2004 period (Table 20). In 2004, 4.0 million unemployed adults (49.4 per cent of the total) were members of households without any wage-earners, up from 1.8 million (42.0 per cent) in 1995. Thus, the number of unemployed adults living in non-wage-earning households rose by 2.2 million, at

an average rate of 9.0 per cent annually. A similar, though slightly slower, increase in number of unemployed adults in households with only one wage-earner also occurred. This means that in 2004 less than 12 per cent of the unemployed were members of households with two or more wage-earners, down from 16.6 per cent in 1995. The evidence, therefore, points to the increased marginalisation of the unemployed in households that have no or very little access to wage-income.

Table 20: Distribution of the Unemployed across Wage-Earning Households, 1995 and 2004

Number of Employed in Household	1995		2004		Change	
	'000s	Share	'000s	Share	'000s	Annual Growth Rate
0	1 780	42.0	3 996	49.4	2 216	9.4
1	1 563	36.9	3 179	39.3	1 616	8.2
2	541	12.8	712	8.8	171	3.1
3	120	2.8	152	1.9	32	2.7
4 +	43	1.0	44	0.5	1	0.3
Total	4 239	100.0	8 083	100.0	3 844	7.4

Source: OHS 1995, LFS 2004:2 (Statistics SA)
Notes: 1. Figures are based on weighted household samples in these two surveys.

It has been observed that, in the South African context, old-age pensions are often used to support the whole household, rather than only the pension recipient, and that pensioners often represent the centre around which poorer households are constituted. Table 21 indicates that the unemployed have experienced increasing access to pension income over the 1995-2004 period, in contrast to the case of wage-income. Overall, the proportion of households with access to old-age pensions has increased from 10.5 per cent (1.0 million households) to 17.3 per cent (2.2 million households), a remarkable achievement with the number of households involved more than doubling. Access rates have increased for households irrespective of the number of unemployed members. Specifically, households with three unemployed members saw access rates rise from 19.4 per cent to 27.5 per cent, while access rates for households with four unemployed members grew by 6.2 percentage points to 31.2 per cent. It is also evident that old-age pension access rates rise as the number of unemployed household members rises, providing some confirmation of the formation of poorer households around pensioners, although no conclusions around causality can be made from the data.

Table 21: Household Access to Pensions according to Number of Unemployed in Household, 1995 and 2004

Number of Unemployed in Household	1995			2004			Change		
	'000s	Access Rate	Share	'000s	Access Rate	Share	'000s	Access Rate	Growth Rate
0	601	8.9	60.3	1 186	16.3	54.5	585	7.4	7.8
1	228	12.6	22.9	538	15.3	24.7	310	2.7	10.0
2	95	15.8	9.6	274	22.9	12.6	178	7.2	12.4
3	41	19.4	4.2	114	27.5	5.2	72	8.1	11.9
4+	30	25.0	3.0	64	31.2	2.9	33	6.2	8.7
Total	996	10.5	100.0	2 174	17.3	100.0	1 179	6.7	9.1

Source: OHS 1995, LFS 2004:2 (Statistics SA)
Notes: 1. 2004 figures exclude households where respondents did not specify whether or not a household member was receiving an old-age pension.
          2. Growth Rate is the average annual growth rate of the number of households with access to pensions.

Households with no unemployed members in 2004 represent 54.5 per cent of all households with access to old-age pensions, down from 60.3 per cent seven years earlier. In contrast, households with two or more unemployed members represent almost 21 per cent of all households with old-age pension access in 2004, up from under 17 per cent in 1995.

In a similar vein, the Labour Force Surveys provide information on households' main income sources. Households' answers to this question in September 2004 are presented in Figure 10 according to the number of broadly unemployed household members. Salaries and wages are the main source of income for the majority of households in South Africa (56.7 per cent). Amongst households with no unemployed members, salaries and wages are the main income source for 66.5 per cent, while for households with one unemployed member, the figure is 48.3 per cent. For households with two or more broadly unemployed members, between 31 per cent and 39 per cent report salaries and wages to be their main source of income.

Figure 10: Households' Main Income Source by Number of Broad Unemployed Household Members, 2004

	0	1	2	3	4+	Total
☐ No Income	0.5	3.5	3.6	2.3	2.9	1.7
☐ Other non-farm Income	6.7	6.4	6.2	6.4	5.0	6.5
☐ Sales of Farm Products	0.9	0.8	0.5	0.2	2.1	0.8
☐ Pensions/Grants	18.3	22.0	39.2	39.3	43.4	22.4
☐ Remittances	6.9	18.9	19.1	12.9	14.0	11.7
■ Salaries/Wages	66.5	48.3	31.4	38.8	32.6	56.7
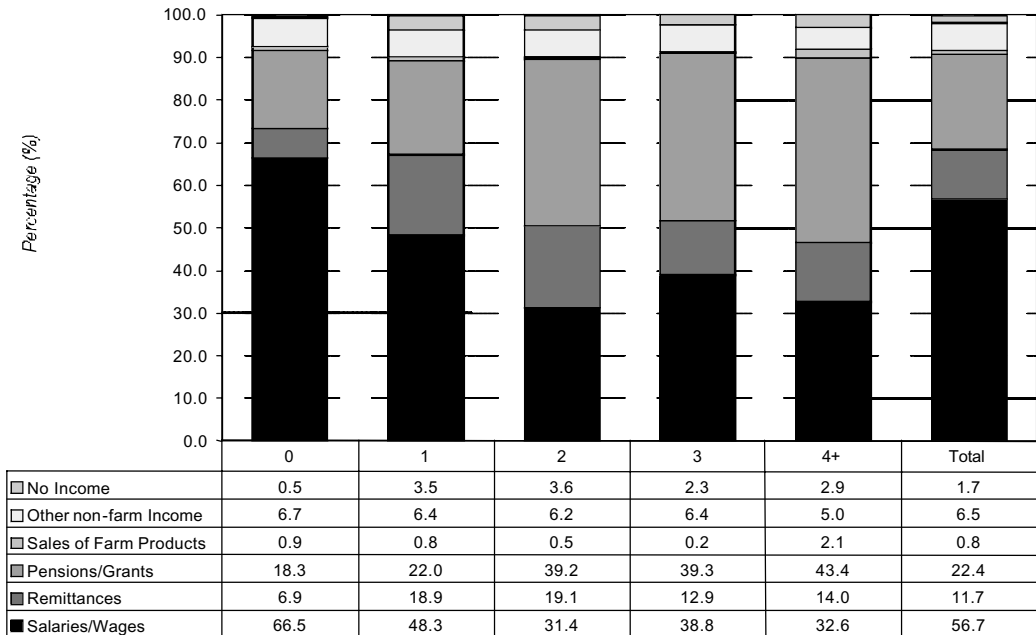
Source: LFS 2004:2 (Statistics SA)

What is clear is that as the proportion of households reporting salaries and wages to be their main source of income declines, the number of broadly unemployed household members rises, as does the proportion of households identifying pensions and grants as their main income source. In households with four or more unemployed members, pensions and grants are the main source of income for more than two-fifths of households, declining slightly to 39 per cent of households with two or three unemployed members. Only around one in five households with fewer than two unemployed members report pensions and grants as their main income source.

The third and final major source of income is remittances. As is fair to expect, very few households with no unemployed members (only 6.9 per cent) receive remittances as their major income source. Around 19 per cent of households with one or two broadly unemployed members identify remittances as their main source of income, although this proportion falls for households with three or more unemployed members.

This section points to the continued, and indeed increased, marginalisation of the unemployed in households with no or very few wage earners. Further, increasing numbers of the unemployed are clustered in households with access to old age pensions and it was also found that households with one or more unemployed members have pensions, grants and

remittances as their main source of income. Consequently, it is evident that the social security system is coming under increasing pressure to support destitute households, a trend which will continue, at least, over the medium term. Policymakers are becoming aware of this trend and require a greater understanding of the formation of households and how grants are utilised to support non-recipients if the social security system is to cope in the current context of rising joblessness.

4.2 Summary

The inability of the South African economy to generate new jobs at the pace required by the rapid increase in the size of the labour force between 1995 and 2004, has led to a ten percentage point rise in the broad unemployment rate. Unemployment rates have risen for virtually every sub-group analysed and have become extremely severe in a number of cases. Amongst Africans, unemployment stood at almost 48 per cent in 2004, up from 38 per cent in 1995. For example, more than 55 per cent of African females are unemployed, as are 54 per cent of the Limpopo labour force and 47 per cent of the North-West labour force.

The skills bias of employment growth is evident in the rapidly rising rates of unemployment amongst the poorly educated groups of the labour force. However, unemployment has risen across all educational categories, indicating that even higher levels of education do not automatically guarantee employment. This is particularly true for African labour force members: unemployment for those with tertiary education stood at 18 per cent in 2004, compared to just three per cent amongst White tertiary graduates. More than 52 per cent of African matriculants were unemployed in 2004, compared to ten per cent of White matriculants.

Low employment growth amongst the youngest labour force members is reflected in a massive increase in the number of unemployed individuals, particularly for those between 18 and 35 years of age. Nearly 70 per cent of 15 to 24 year olds and 44 per cent of 25 to 34 year olds were unemployed in 2004. Furthermore, the overwhelming majority of unemployed individuals have either never had a job before or have not worked for the past three years or more. These trends have serious implications for the affected individuals themselves and for the broader economy, since they are not raising their levels of education or skills nor are they acquiring work experience.

The unemployed are also increasingly marginalised in households with no or little wage-income, with nearly half of the unemployed residing in households without any employed members. At the same time, there is tentative evidence that the unemployed are increasingly clustered around pension recipients, although this does not indicate any causality in terms of household formation. Overall, households' access to pensions has increased. In terms of main income sources, pensions are most often cited as the main income sources of households with two or more unemployed members. Pensions are

followed by salaries and wages of employed household members and, to a lesser extent, remittances.

With a large part of the labour force unemployed, the challenge of ensuring that growth is shared is accentuated. This is particularly true because of the fact that, for many individuals, unemployment is a long-term phenomenon, evidenced by the large proportion of the unemployed who have never had employment or have not worked in three years or more. Long-term unemployment results in the erosion of an individual's skills base and prevents the accumulation of experience, reducing future employability and, therefore, the individual's ability to capture the benefits of economic growth via employment. Unemployment, not surprisingly, is most common amongst South Africa's poorest and least skilled groups and, with continued skills-biased employment growth, their chances of accessing employment opportunities are reduced. Finally, the fact that the unemployed find themselves increasingly in households with little or no access to wage-income presents a further challenge. This means that a large proportion of the population currently have no means of accessing the benefits of growth in, for example, the form of higher wages. Of great concern, though, if these individuals are deemed 'unemployable', this current marginalisation from the benefits of economic growth will become a long-term problem.

5. A Multivariate Analysis of Employment

Although important and useful, the preceding analysis is limited in that it takes into account one or two variables when describing employment, unemployment or the labour force. However, a wide variety of variables acting together will determine whether an individual enters the labour force and finds work or remains unemployed. Ordinary cross-tabulations are unable to deal with this issue, but fortunately it is possible to begin to disentangle the various effects econometrically.

The purpose of this section is to investigate the role of various factors in influencing whether or not an individual is employed. This is achieved by estimating an employment probit. However, the sample of individuals in the labour force is not a random sample, since this group has already undergone some kind of selection process whereby they decided to enter the labour force while others opted out of the labour force. As shown above, employed individuals differ from their unemployed counterparts and both are likely to differ from non-participants. Consequently, the estimated results will suffer from sample selection bias. To address this problem, the Heckman two-step approach is followed. First, a labour force participation probit is estimated using, amongst others, certain household-specific variables that would affect an individual's decision to enter the labour force. The labour force participation equation allows the estimation of the inverse Mills ratio (lambda), which in turn is included in the employment probit, making it conditional on labour force participation.

Table 22 presents the results of the labour force participation probit. The referent variables are:
- Age: 15 to 24 years
- Race: African
- Gender: Male
- Province: Eastern Cape.

The positive, statistically significant coefficients for the four age-groups in both years indicates that individuals aged 15 to 24 years are least likely to enter the labour force. However, it appears that this difference reduced slightly over the period, particularly amongst 35 to 44 year olds. In 1995, Coloureds were almost three per cent more likely to enter the labour force than their African counterparts, while Asians and Whites were respectively 9.1 per cent and 13.7 per cent less likely to enter. By 2004, Africans were most likely to enter the labour force, since all other race groups' coefficients are negative and significant. Whites were only three-quarters as likely as Africans to be part of the labour force in 2004.

In terms of location, provinces were used in the probits. This is due to the fact that in 2004, urban-rural data is not included in the LFSs. The results demonstrate that only Limpopo residents were less likely to enter the labour force than those in the Eastern Cape. Residents of the Free State, Gauteng and the Western Cape were most likely to enter the labour force. This, however, had changed somewhat by 2004. Firstly, the coefficients for the Free State,

KwaZulu-Natal and Limpopo are no longer statistically significant, indicating that residents of those provinces are no more or less likely to enter the labour force than those of the Eastern Cape. For the remaining provinces, except Mpumalanga, the greater likelihood of entering the labour force relative to the Eastern Cape and measured in 1995 was reduced.

Table 22: Labour Force Participation Equations using the Broad Definition of Unemployment, 1995 and 2004

	1995			2004		
	Marginal Effects		x-bar	Marginal Effects		x-bar
25-34 years	0.6290	**	0.1611	0.6136	**	0.1694
35-44 years	0.6721	**	0.1158	0.6065	**	0.1116
45-54 years	0.6109	**	0.0691	0.5453	**	0.0826
55-65 years	0.3688	**	0.0549	0.3414	**	0.0611
Coloured	0.0289	**	0.0937	-0.0654	**	0.0882
Asian	-0.0909	**	0.0263	-0.2208	**	0.0246
White	-0.1374	**	0.1081	-0.2662	**	0.0948
Female	-0.1413	**	0.5194	-0.1138	**	0.5085
Western Cape	0.0963	**	0.1016	0.0560	**	0.0979
Northern Cape	0.0827	**	0.0212	0.0412	**	0.0194
Free State	0.0997	**	0.0644	0.0081		0.0635
KwaZulu-Natal	0.0438	**	0.2036	0.0000		0.2068
Gauteng	0.0971	**	0.1705	0.0429	**	0.1912
North West	0.0625	**	0.0859	0.0228	**	0.0810
Mpumalanga	0.0573	**	0.0692	0.0584	**	0.0686
Limpopo	-0.0581	**	0.1238	0.0146		0.1205
No education to Grade 6	0.0296	**	3.8780	0.0467	**	4.0665
Grade 7	0.0168	**	0.4877	0.0499	**	0.5248
Grade 8 to Grade 11	0.0118	**	1.2599	0.0516	**	1.4334
Grade 12	0.1977	**	0.1565	0.1817	**	0.1919
Diploma	0.0216	*	0.0456	0.0689	**	0.0493
Degree	-0.0077		0.0293	-0.0252	**	0.0542
Children under 15 years	-0.0217	**	2.2230	-0.0271	**	2.0224
Adults over 60 years	-0.0693	**	0.3608	-0.0692	**	0.3198
Observed Probability			0.3435			0.4265
Predicted Probability (at x-bar)			0.2652			0.3894
Number of Observations			125407			109309
Chi			69972.12			70339.75
Pseudo R			0.4337			0.4716

Source: OHS 1995, LFS 2004:2 (Statistics SA); own calculations.
Notes: *   Significant at the five per cent level.
           **   Significant at the one per cent level.

The effect of an individual's education is captured by the education splines included in the probit. In 1995, all education variables were statistically significant, except for Degree, while all significant variables had positive coefficients. The positive coefficients indicate that higher levels of educational attainment coincide with a higher probability of labour force participation. Since the education variables are splines, the insignificant coefficient on Degree indicates that degreed individuals of working age are not different to those with

Diplomas in terms of their likelihood of being part of the labour force. In 2004, all education splines are statistically significant at the one per cent level. All splines also vary positively with the probability of participation, except for Degree, which has a negative coefficient.

The two household variables included, namely the number of children under the age of 15 years that reside in the household and the number of adults over the age of 60 years that reside in the household, appear to play a statistically significant role in the decision to enter the labour force. The number of children under the age of 15 years has a negative coefficient in both years, indicating that a greater number of young children that reside in the household, the lower the probability that an individual will be part of the labour force. This is in some respects somewhat counter-intuitive, since one could argue that the increased financial burden placed on households by young children would spur adults to enter the labour force. However, if the probits were run separately for males and females, the effect of the presence of children in the household would perhaps be clearer. For example, Bhorat and Leibbrandt (2001: 119-120) find that the presence of young children in the household is insignificant in determining the participation decision of males, while it is significant and negative for females, using the expanded definition of unemployment. Similarly, the number of adults over 60 years of age is also significantly negative in both years, meaning that the greater the number of pensionable-aged individuals in the household, the less likely working age individuals will be to participate in the labour force.

Having estimated the participation equation using various person- and household-related variables, the sample of those individuals who do participate in the labour force is retained and the employment equation, which estimates the probability that labour force members are employed, is estimated. The same referent variables are utilised, namely 15 to 24 years, African, Male, and Eastern Cape.

Firstly, the results indicate that the coefficients in both years for lambda or the inverse Mills ratio are both negative and statistically significant. Since the inverse Mills ratio is a measure of the extent to which the sample suffers from selectivity bias, this means that labour force members do indeed differ from their counterparts who decide not to participate in the labour force, and the two-step approach is therefore both justified and necessary.

Table 23: Employment Equations using the Broad Definition of Unemployment, 1995 and 2004

	1995			2004		
	Marginal Effects		x-bar	Marginal Effects		x-bar
25-34 years	0.1623	**	0.2370	0.0239		0.2696
35-44 years	0.2143	**	0.1909	0.1288	**	0.1776
45-54 years	0.1496	**	0.1204	0.1651	**	0.1314
55-65 years	0.0000		0.1042	0.1177	**	0.0972
Coloured	0.0988	**	0.1000	0.1152	**	0.0913
Asian	0.0954	**	0.0330	0.1871	**	0.0281
White	0.1046	**	0.1423	0.2290	**	0.1054
Female	-0.2005	**	0.5122	-0.1347	**	0.5163
Western Cape	0.1030	**	0.1151	0.0752	**	0.1067
Northern Cape	0.0196		0.0215	-0.0159		0.0194
Free State	0.1272	**	0.0681	0.0382	**	0.0654
KwaZulu-Natal	0.0384	**	0.1974	0.0090		0.2035
Gauteng	0.1469	**	0.2018	0.0500	**	0.2136
North West	0.0557	**	0.0849	-0.0190	*	0.0815
Mpumalanga	0.0421	**	0.0658	0.0558	**	0.0661
Limpopo	-0.0320	**	0.1065	-0.0368	**	0.1068
No education to Grade 6	-0.0119	**	5.1514	-0.0253	**	5.3573
Grade 7	-0.0491	**	0.7404	-0.0189	*	0.7756
Grade 8 to Grade 11	-0.0209	**	2.0347	-0.0195	**	2.1952
Grade 12	0.1253	**	0.2580	0.0763	**	0.2945
Diploma	0.1344	**	0.0827	0.2398	**	0.0750
Degree	-0.0118		0.0533	0.0007		0.0822
lambda	-0.3811	**	0.8762	-0.3960	**	0.6400
Observed Probability			0.4745			0.3959
Predicted Probability (at x-bar)			0.4481			0.3618
Number of Observations			64627			67946
Chi			28132.2			19466.91
Pseudo R			0.3146			0.2134

Source: OHS 1995, LFS 2004:2 (Statistics SA); own calculations.
Notes: *   Significant at the five per cent level.
**   Significant at the one per cent level.

In 1995, 15 to 24 year olds were least likely to find employment relative to their older counterparts, all age-group coefficients being positive and statistically significant, except the coefficient for 55 to 65 year olds which is insignificant. In 1995, individuals between 35 and 44 years of age were 21 per cent more likely to be employed than their 15 to 24 year old counterparts. Interestingly, this general situation had changed somewhat by 2004. Firstly, the coefficient for 24 to 35 year olds is no longer statistically significant, meaning that 24 to 35 year olds were, *ceteris paribus*, no more or less likely to find employment than their younger counterparts. Further, the coefficients of the 34 to 44 year age-group declined significantly over the period. In 2004, 35 to 44 year olds were only 2.5 per cent more likely than 15 to 24 year olds to be employed (down from 21 per cent). In contrast, the coefficient for 45 to 54 year olds indicates that they were 16.5 per cent more likely than 15 to 24 year olds to be employed (up marginally from 15.0 per cent). Interestingly, the positive and significant coefficient for 55 to 65 year olds indicated that these individuals were 11.8 per cent more likely than 15 to 24 year olds to be employed.

In terms of race, all coefficients in both years are significantly positive, indicating that in both periods, Africans were least likely to be employed, *ceteris paribus*. In 1995, the coefficients for Coloureds, Asians and Whites were of similar magnitudes. However, by 2004, the gap between Africans and other race groups had widened, with the Coloured, Asian and White coefficients higher than in 1995. Thus, in 2004, Whites were 23 per cent, Asians about 19 per cent and Coloureds 11.5 per cent more likely than Africans to be employed. This is a disturbing trend that is manifested in rapidly rising unemployment rates amongst Africans, detailed earlier. Females were also less likely to be employed than males in both years, although it appears that this effect may be weakening as evidenced by the decline in the size of the coefficient from -0.2005 to -0.1347.

Location does seem to play a role in terms of the probability of being employed, although its effect appears to be weakening. In 1995, only Limpopo residents were less likely than Eastern Cape residents to be employed. The coefficients of all other provinces were statistically significant and positive, except for the Northern Cape whose coefficient was not significant. Gauteng, the Free State and the Western Cape had the highest coefficient values. By 2004, however, Eastern Cape residents were more likely to be employed than both Limpopo and North West residents, while their chances of employment were similar to those of individuals in the Northern Cape and KwaZulu-Natal. Although the residents of the remaining provinces were more likely to be employed, the size of the coefficients was much reduced. For example, in 1995, Gauteng had the highest coefficient at 0.1469 compared to the highest coefficient in 2004 of a mere 0.0752 for the Western Cape. This seems to indicate a slow process of gradual normalisation in the labour market, with respect to location, with a narrowing of the range of coefficients, given that the provinces with the lowest probabilities of employment were also those provinces with the greatest homeland populations in 1995.

Finally, in terms of education, the splines indicate that levels of education below matric are associated with lower likelihoods of finding employment. This is observed in both periods. The rapid increase in unemployment amongst holders of matric certificates is reflected here in the weakening of the positive coefficient of the Grade 12 variable. In 1995, the coefficient was 0.1253, but this declined to 0.0763 in 2004. In contrast, the value of tertiary education in helping individuals find employment appears to have strengthened, with a substantial increase of the coefficient from 0.1344 in 1995 to 0.2398 in 2004. Interesting, though, is the insignificance of the coefficients of Degree in both years. This indicates that having a degree does not raise one's probability of employment above the probability of employment if one has a diploma. Nevertheless, as mentioned, having a diploma has a significant positive impact on the probability of employment relative to having a matric certificate.

The labour market has therefore clearly been changing over the period. This is evidenced by the changes in the effects of the variables included in the probits. For example, gender appears to be playing less of a role in the employment equation in 2004 compared to 1995, although the same cannot be said of race. The current skills shortage is also detected in the

increased effect of tertiary education within the employment equation. Such changes are important to monitor to help ensure that employment promotion policies are targeted at properly identified problems.

6. Conclusion

The South African economy today, like that of 1995, faces some important challenges. Probably the most important, and one which has characterised the economies of both 1995 and 2005, is the challenge of generating job opportunities in sufficient numbers so as to first halt the rise in unemployment and then reduce it. It has been shown that, while not jobless, economic growth has been unable to provide the necessary employment opportunities required by population growth and rising labour force participation rates, resulting in a rapidly rising rate of unemployment, which stands at 41.0 per cent of the labour force. Actual labour absorption has been far lower than the rates required just to keep unemployment levels constant.

Equality in the labour force is still a far way off in terms of access to employment. Unemployment is concentrated in specific demographically and geographically defined groups. Thus, those worst affected by unemployment are African, female, poorly educated, and the young (15 to 24 year olds specifically). Provinces with relatively greater rural populations are the worst hit regions. Even amongst groups who, in the past, would have found employment relatively easily, for example Whites or highly educated people, jobs have become relatively scarcer. Unemployment in 2005 is also quite a permanent feature of life for many individuals, with almost eight in ten unemployed individuals having been unemployed for more than three years or having never had a job at all. This phenomenon has serious implications for the human capital of these individuals as extended periods of unemployment erode their skills or make their skills outdated, reducing their chances of re-employment even further.

The paper has found there to be a rapidly growing number of unemployed workers with relatively high levels of education (specifically matric and tertiary qualifications), despite the 1995-2004 period seeing a continuation of previous employment trends biased towards tertiary sectors and more highly skilled and better educated workers. This problem is particularly acute amongst Africans, which seems to indicate perceived differences in quality of graduates from different race groups and may relate more to perceptions of inferior quality of education provided at historically disadvantaged tertiary education institutions. Thus, despite a skills shortage in South Africa, there are increasing numbers of highly educated people without employment. This represents one of the most important challenges facing government: ensuring that the education system produces the mix of skills required by the labour market, as well as ensuring quality education at all educational institutions. However, addressing these problems may still be insufficient as employers may still have misconceptions and stereotypes about certain institutions in terms of education quality. Further investigation of institutions that award non-degree tertiary qualifications may be in

order, given the fact that it is particularly graduates of these institutions who are unable to find employment.

The labour market, as stated earlier, is an exceedingly important factor market with changes in it impacting on the lives of millions of people. It is also, arguably, one of the key arenas in which the success of shared growth policies will be determined. In terms of the labour market, access to incomes via employment and the generation of suitable employment opportunities are critical for the sharing of growth. The analysis above, however, has shown that whether an individual is employed or unemployed is related to a number of possible characteristics of that person, including race, gender, age, location, and level of education, and that employment growth has not been evenly spread across all characteristics. Further, due to growing levels of 'unemployability' and their marginalisation in households with little or no access to wage income, the unemployed are even less likely to be able to access the benefits of economic growth. Of the jobs that were created over the period, it is important to remember that many were created in the informal sector, where jobs are often of low quality and are less stable and lower paying than formal sector jobs. Successfully sharing growth requires that those who previously did not benefit from economic growth are drawn in from the periphery and helped to engage effectively with the economy, via the labour market in particular. In other words, the successful and sustainable sharing of growth will at least partly succeed or fail based on the extent to which employment opportunities are equitably provided to all members of society. It is clear, however, that this is an immense task, but one that must be met with the full focus of our efforts.

References

Altman, M., 2003. *Employment Trends and Policy Implications*. Paper presented at the TIPS/DPRU Conference, September 8-10. Johannesburg.

Bhorat, H., 2003a. *Employment and Unemployment Trends in Post-Apartheid South Africa.* Paper prepared for the Presidency Ten-Year Cabinet Review Process.

_____, 2003b. *The Post-Apartheid Challenge: Labour Demand Trends in the South African Labour Market, 1995-1999.* Development Policy Research Unit Working Paper No. 03/82. Available [online]: http://www.commerce.uct.ac.za/dpru/WorkingPapers/wpapers.asp.

Bhorat, H., & Leibbrandt, M., 2001. Modelling Vulnerability and Low Earnings in the South African Labour Market. In: Bhorat, H., Leibbrandt, M., Maziya, M., Van der Berg, S. and Woolard, I. *Fighting Poverty: Labour Markets and Inequality in South Africa*. Cape Town: UCT Press.

Casale, D., & Posel, D., 2002. The Continued Feminisation of the Labour Force in South Africa: An Analysis of Recent Data and Trends. *South African Journal of Economics* 70(1): 156-184. March.

Fedderke, J.W., & Mariotti, M., 2002. Changing Labour Market Conditions in South Africa: A Sectoral Analysis of the Period 1970-1997. *South African Journal of Economics* 70(5): 830-864.

Fields, G., Leibbrandt, M., & Wakeford, J., 2000. *Key Labour Market Elasticities in South Africa*. Research report for the South African Department of Finance (now National Treasury).

Loots, E., 1998. Job Creation and Economic Growth. *South African Journal of Economics* 66(3): 319-336.

Mahadea, D., 2003. Employment and Growth in South Africa: Hope or Despair? *South African Journal of Economics* 71(1): 21-48.

Moolman, E., 2003. *An Econometric Analysis of Labour Demand at an Industry Level in South Africa.* TIPS Working Paper Series WP5-2003. Available [online]: http://www.tips.org.za/research/papers/getpaper.asp?id=679

Muller, C., 2003. Measuring South Africa's Informal Sector: An Analysis of National Household Surveys. *Development Policy Research Unit Working Paper No. 03/71*. Available [online]: http://www.commerce.uct.ac.za/dpru/WorkingPapers/wpapers.asp.

National Treasury (formerly Department of Finance), 1996. *Growth, Employment and Redistribution: A Macroeconomic Strategy.* Pretoria: Government Printers.

Oosthuizen, M. J., 2003. *Expected Labour Demand in South Africa: 1998-2003.* Development Policy Research Unit Working Paper No 03/81. Available [online]: http://www.commerce.uct.ac.za/dpru/WorkingPapers/wpapers.asp.

Oosthuizen, M. J., & Bhorat, H., *forthcoming.* The Post-Apartheid Labour Market. *In:* Bhorat, H. and Kanbur, R. (eds), *Poverty and Policy in Post-Apartheid South Africa.*

_____, 2004. The Post-Apartheid South African Labour Market. *SAGA Working Paper* No. 176. Available [online]: http://www.saga.cornell.edu/saga/workpap.html.

Page, J., 2005. *Strategies for Pro-Poor Growth: Pro-Poor, Pro-Growth or Both?* Paper presented at "African Development and Poverty Reduction: The Macro-Micro Linkage", the DPRU/TIPS Forum, hosted in association with Cornell University, Cape Town, 13-15 October 2004.

SARB, 2005. Quarterly Bulletin. No 236. September.

Sellars, C., 2000. Unemployment, Policy and Social Partnership. *South African Journal of Economics* 68(3): 484-513.

Statistics South Africa, 2004a. Gross Domestic Product. *Statistical Release P0441*. Pretoria: own publication. Available [online]: http://www.statssa.gov.za.

_____, 2004b. Labour Force Survey: September 2003. *Statistical Release P0210*. Pretoria: own publication. Available [online]: http://www.statssa.gov.za.

_____, 2002. Survey of Employment and Earnings, December 2002. *Statistical Release P0271*. Pretoria: own publication.

_____, 2000. October Household Survey 1999. *Statistical Release P0317*. Pretoria: own publication.

_____, various years. *Labour Force Survey*. Pretoria: own publication. Dataset.

_____, 1995. *October Household Survey 1995.* Pretoria: own publication. Dataset.

Appendix A

Snapshot of the South African Labour Force (Broadly Defined), by Race, 1995 and 2004

|		*1995*		*2004*		*Change*	
		›000s	*Share of Race Total*	*›000s*	*Share of Race Total*	*›000s*	*Share of Race Total*
African	Male	5374	54.4	7700	51.0	2326	44.5
	Female	4501	45.6	7388	48.9	2887	55.3
Coloured	Male	804	54.1	945	50.6	141	37.0
	Female	682	45.9	921	49.4	239	63.0
Asian	Male	269	64.5	334	63.1	65	58.1
	Female	148	35.5	195	36.9	47	41.9
White	Male	1152	58.3	1245	56.6	93	42.1
	Female	825	41.7	950	43.2	125	56.6
African	15-24 years	1628	16.5	3251	21.5	1624	31.1
	25-34 years	3728	37.8	5587	37.0	1859	35.6
	35-44 years	2678	27.1	3332	22.1	654	12.5
	45-54 years	1317	13.3	2091	13.8	773	14.8
	55-65 years	524	5.3	835	5.5	311	6.0
Coloured	15-24 years	366	24.6	453	24.3	87	23.0
	25-34 years	538	36.2	609	32.6	70	18.5
	35-44 years	349	23.5	445	23.8	96	25.2
	45-54 years	172	11.6	292	15.6	120	31.6
	55-65 years	61	4.1	68	3.6	7	1.7
Asian	15-24 years	98	23.5	102	19.3	4	3.8
	25-34 years	134	32.2	185	34.9	50	44.8
	35-44 years	103	24.6	131	24.8	29	25.4
	45-54 years	64	15.3	83	15.8	20	17.6
	55-65 years	19	4.4	28	5.3	9	8.4
White	15-24 years	312	15.8	249	11.3	-63	-28.5
	25-34 years	576	29.2	663	30.2	86	39.0
	35-44 years	541	27.4	585	26.6	45	20.2
	45-54 years	388	19.6	444	20.2	56	25.2
	55-65 years	159	8.0	256	11.7	97	44.0
African	No education	1087	11.0	999	6.6	-88	-1.7
	Incomplete Primary	2133	21.6	2628	17.4	495	9.5
	Complete Primary	844	8.5	1163	7.7	319	6.1
	Incomplete Secondary	3375	34.2	5789	38.3	2415	46.2
	Complete Secondary	1574	15.9	3349	22.2	1775	34.0
	Tertiary	682	6.9	968	6.4	286	5.5
	Other/Unknown	179	1.8	199	1.3	20	0.4
Coloured	No education	92	6.2	57	3.0	-35	-9.2
	Incomplete Primary	289	19.5	230	12.4	-59	-15.4
	Complete Primary	157	10.6	156	8.4	-1	-0.3
	Incomplete Secondary	625	42.1	787	42.2	162	42.7
	Complete Secondary	227	15.3	501	26.9	274	72.1
	Tertiary	86	5.8	99	5.3	13	3.4
	Other/Unknown	10	0.7	35	1.9	25	6.7
Asian	No education	2	0.5	4	0.8	2	2.1
	Incomplete Primary	13	3.1	10	1.8	-3	-2.9
	Complete Primary	14	3.4	10	1.9	-4	-3.6
	Incomplete Secondary	150	36.0	144	27.2	-6	-5.2
	Complete Secondary	172	41.2	265	50.0	93	82.8
	Tertiary	63	15.1	87	16.4	24	21.4
	Other/Unknown	3	0.8	9	1.8	6	5.4
White	No education	1	0.0	2	0.1	1	0.4
	Incomplete Primary	7	0.3	7	0.3	0	0.0
	Complete Primary	1	0.1	11	0.5	10	4.5
	Incomplete Secondary	423	21.4	294	13.4	-130	-58.6
	Complete Secondary	900	45.6	1040	47.3	140	63.1
	Tertiary	599	30.3	787	35.8	188	84.9
	Other/Unknown	45	2.3	57	2.6	12	5.6

Source: OHS 1995, LFS 2004:2 (Statistics SA)
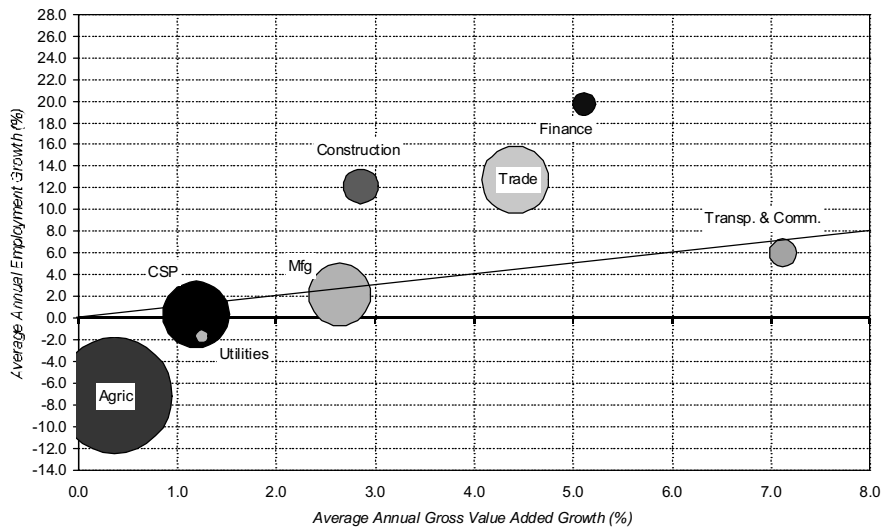
Appendix B

Gross Value Added and Employment Growth by Sector, 1995-2004: Skilled Workers
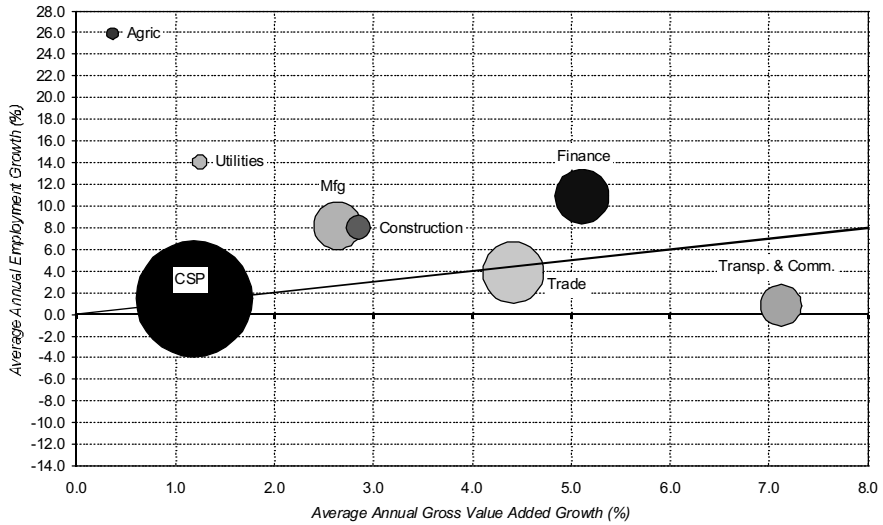
Gross Value Added and Employment Growth by Sector, 1995-2004: Semi-Skilled Workers
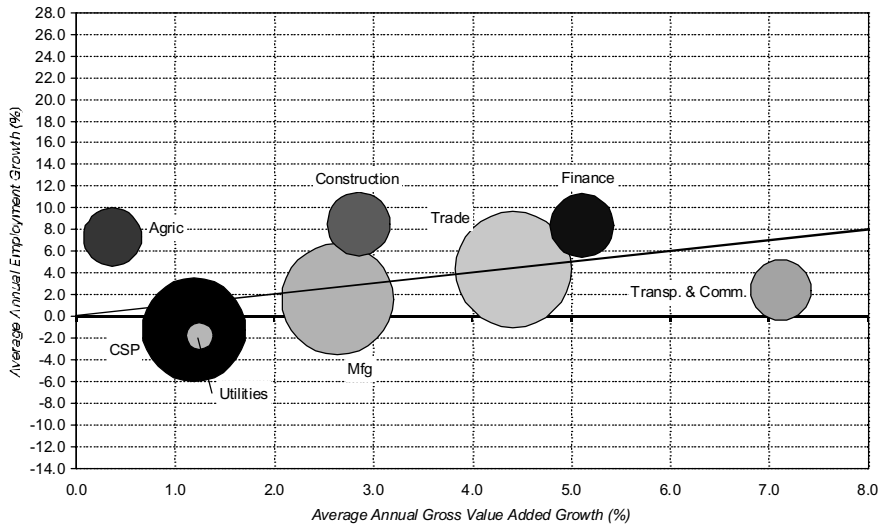
Gross Value Added and Employment Growth by Sector, 1995-2004: Unskilled Workers

Source: OHS 1995, LFS 2004:2 (Statistics SA).

Appendix C

Unemployment by Race and Gender, 1995-2004

	1995					
	Male		Female		Total	
African	29.5	(1.092)	47.6	(1.119)	37.8	(1.060)
Coloured	17.9	(1.027)	28.4	(1.548)	22.8	(1.122)
Asian	10.0	(1.406)	20.6	(2.989)	13.8	(1.798)
White	3.7	(0.318)	8.7	(0.729)	5.8	(0.386)
Total	23.7	(0.925)	39.6	(1.168)	30.8	(1.004)
	2004					
	Male		Female		Total	
African	40.1	(0.688)	55.9	(0.610)	47.8	(0.522)
Coloured	25.8	(1.766)	35.1	(1.799)	30.4	(1.565)
Asian	17.2	(2.434)	27.1	(4.351)	20.8	(2.387)
White	7.0	(0.832)	9.8	(1.111)	8.3	(0.695)
Total	33.9	(0.628)	48.6	(0.654)	41.0	(0.554)

Source: OHS 1995, LFS 2004:2 (Statistics SA).
Notes: Standard errors are in parentheses, and are corrected for according to frequency weights, the primary sampling unit and, in the case of 2004, sampling stratification.