A Labour Market Profile of the Mpumalanga Province

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1. Introduction

The chief objective of this chapter is to provide a snapshot of the current labour market in the Mpumalanga province, as well as to analyse some of the structural shifts in employment that have occurred since 1995. Wherever appropriate, estimates for the province are compared to those for Gauteng, Limpopo, as well as national estimates. Gauteng was selected due to its close proximity to Mpumalanga, and the significant flow of migrants from Mpumalanga into the province. This chapter attempts to digress from the conventional approach to labour market analysis by considering various issues forming part of the employment challenge facing the country. Some of the key areas to be addressed include the question of whether or not growth has been jobless, sectoral differences in employment in Mpumalanga relative to other provinces, and the importance of the informal sector and agriculture as drivers of employment in the province. We then go on to consider some of the constraints on the labour supply side, examining the nature of households that the unemployed in Mpumalanga reside in. Next, the role of remittances from migrant workers into Mpumalanga will be assessed. Finally, we attempt a multivariate analysis of three of the key outcomes in the labour market, namely labour force participation, employment, and earnings.

As a point of departure, we attempt to put the population of the Mpumalanga province into a national context. The Mpumalanga province accounts for 7.4 % of the total population of South Africa (approximately 3.5 million individuals). There are three main district councils in Mpumalanga, namely Ehlanzeni, Gert Sibande, and Nkangala which account for 29%, 26% and 34% of the population respectively. The remaining 11 % of the population resides in the smaller district councils Metsweding Sekhukhune, and Bohlabela, which are cross-border municipalities. However, a detailed analysis by district council for Mpumalanga was not possible due to sample size issues, given the small size of the Mpumalanga population.

Figure 1 below presents the age and gender composition of Mpumalanga residents in comparison with those of Gauteng by means of age pyramids. The male and female shares of the total population within each race group are plotted on the horizontal axis and age on the vertical axis. While each pyramid broadens towards the base and narrows down towards the apex, the pyramid for Gauteng widens towards the middle of the distribution. This suggests that the bulk of the Gauteng population falls into the working age category, while in Mpumalanga and Limpopo youth constitute the bulk of the population.

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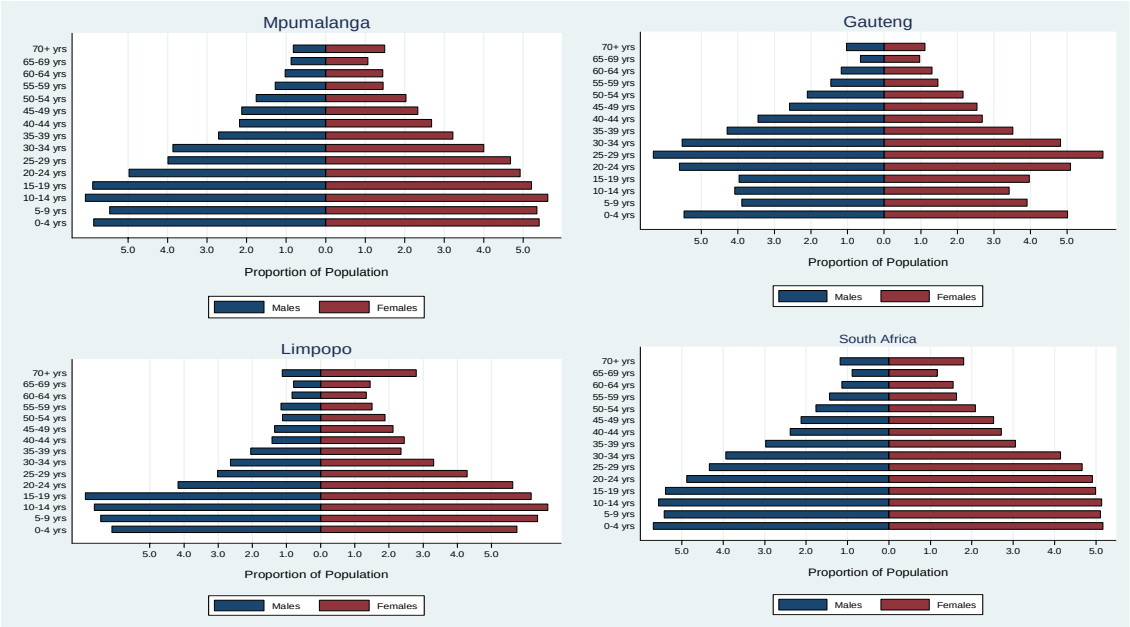
Figure 1: Age distribution of the population in Mpumalanga, September 2006



Source: LFS 2006:2 (StatsSA).

The relative youthfulness of the Mpumalanga population compared with Gauteng is in evidence from the results above. Specifically, a significantly higher share of the population in Mpumalanga falls within the three youth age groups (15-19 years, 20-24 years and 25-29 years) than in Gauteng. 11 % of the Mpumalanga population is aged between 15 and 19 years, while the corresponding estimates for Gauteng is only 8%.

2. Post-Apartheid Labour Supply Trends in Mpumalanga

The Broad Labour Force

The labour force comprises those individuals between the ages of 15 and 65 years who are economically active, that is, the employed and the unemployed. The expanded labour force includes individuals who have given up searching for a job (discouraged workseekers).

The table below provides a snapshot of the composition of the broadly defined labour force in the Mpumalanga province. When examining the shares by race in the labour force, it is worth noting that the population of Mpumalanga is predominantly African (93%) and White (7%), and this is reflected in the estimates by race presented below. Hence, nearly 92% of the labour force in Mpumalanga is African.

Table 1: Snapshot of the Mpumalanga Labour Force (Broadly defined), 2006

		MP		GA		LP		SA	
		'000s	share	'000s	share	'000s	share	'000s	share
By race	African	1,351	*91.5%*	4,254	*80.3%*	1,676	*96.2%*	15,673	*76.8%*
	Coloured	3	*0.2%*	146	*2.8%*	1	*0.1%*	1,947	*9.5%*
	Asian	4	*0.3%*	112	*2.1%*	11	*0.6%*	531	*2.6%*
	White	118	*8.0%*	755	*14.2%*	55	*3.1%*	2,202	*10.8%*
By gender	Male	738	*50.0%*	2,920	*55.1%*	773	*44.4%*	10,460	*51.3%*
	Female	738	*50.0%*	2,376	*44.9%*	970	*55.6%*	9,948	*48.7%*
By age	15-24 yrs	282	*19.1%*	910	*17.2%*	349	*20.0%*	4,021	*19.7%*
	25-34 yrs	527	*35.7%*	2,038	*38.5%*	623	*35.8%*	7,292	*35.7%*
	35-44 yrs	336	*22.8%*	1,251	*23.6%*	388	*22.3%*	4,636	*22.7%*
	45-54 yrs	238	*16.1%*	767	*14.5%*	266	*15.2%*	3,119	*15.3%*
	55-65 yrs	93	*6.3%*	330	*6.2%*	117	*6.7%*	1,340	*6.6%*
By education	None	148	*10.0%*	147	*2.8%*	137	*7.9%*	964	*4.7%*
	Inc GET	415	*28.1%*	1,039	*19.6%*	535	*30.7%*	5,468	*26.8%*
	Comp GET	374	*25.4%*	1,593	*30.1%*	525	*30.1%*	5,853	*28.7%*
	Matric	407	*27.6%*	1,737	*32.8%*	346	*19.8%*	5,608	*27.5%*
	Diploma/Cert	90	*6.1%*	451	*8.5%*	149	*8.5%*	1,610	*7.9%*
	Degree	39	*2.6%*	223	*4.2%*	47	*2.7%*	808	*4.0%*
By location	Metro	0	*0.0%*	4422	*83.5%*	0	*0.0%*	8,496	*58.4%*
	Non Metro	1476	*100.0%*	875	*16.5%*	1743	*100.0%*	11,912	*41.6%*
Total		**1,476**	***100%***	**5,296**	***100%***	**1,743**	***100%***	**20,408**	***100%***

Source: Labour Force Surveys, September 2006 (Statistics South Africa).
Notes: 1.The broad labour force consists of the employed plus the unemployed according to the expanded definition of unemployment.
2. GET refers to General Education and Training. Complete GET refers to individuals who have completed either Grade 9, 10, or 11.

The two predominant population groups in Mpumalanga are African and White, with Coloureds and Indians accounting for only 0.5 % of the labour force. Therefore it is important to note that the figures for Asians and Coloureds shown here have been included for the sake of completion and are not reliable. Compared with Gauteng, Africans are in a significantly higher proportion in Mpumalanga (91.5% relative to 80.3%). Moreover, Africans account for a significantly larger share in the labour force in Mpumalanga relative to the national labour force.

Examining the shares within the labour force by gender, we note that the lack of a significant difference between the estimates for males versus females (50%). This differs from the gender distribution in Gauteng, where the proportion of males in the labour force is 10 percentage points higher than that of females, and this difference was statistically significant at the 5 % level. In Limpopo the converse is true, with females accounting for a significantly higher proportion of the labour force.

Examining the age distribution of the labour force in Mpumalanga by age category, it appears similar to that for the rest of South Africa. Differences in labour force shares by age category between the provinces were also statistically insignificant at 5%. The age composition of the Mpumalanga population will be further investigated below.

The educational profile of the Mpumalanga labour force seems to resemble that of Limpopo, and suggests that the Mpumalanga labour force is lesser educated than that in Gauteng and the rest of South Africa. For example, the share of labour market participants with no education in Mpumalanga is 10 %, which is more than three times the estimate for Gauteng (2.8%) and double the national estimate (4.7%). These differences were found to be statistically significant at the 5% level of confidence.

Like Limpopo, the Mpumalanga province is a predominantly rural province, with no metropolitan areas. In contrast, Gauteng is mainly made up of metropolitan areas, and hence 84% of its labour force is located in metropolitan locations.

Changes in the labour force 1995-2006

Having examined the labour force in Mpumalanga relative to that of other provinces in 2006, we now consider any significant changes that have occurred in the composition of the broad labour force in the province. Firstly, the estimates show that from 1995 to 2006 the broad labour force in Mpumalanga grew from 896,000 to 1,476,000. 99% of this growth was due to the significant increase in the number of Africans in the labour force. While the increase in the number of Africans was statistically significant, the racial composition of the labour force was not significantly altered over this time.

Table 2: Snapshot of the Mpumalanga Labour Force (Broadly defined), 1995-2006

		1995		2001		2006		Change 1995-2006	
		'000s	share	'000s	share	'000s	share	'000s	share
By race	African	776	86.5%	1,097	89.7%	1,351	91.5%	575*	99.3%
	Coloured	8	0.9%	9	0.8%	3	0.2%	-5	-0.8%
	Asian	5	0.6%	6	0.5%	4	0.3%	-1	-0.2%
	White	108	12.0%	110	9.0%	118	8.0%	10	1.8%
By gender	Male	520	58.0%	636	52.1%	738	50.0%	218	37.6%*
	Female	376	42.0%	586	47.9%	738	50.0%	362*	62.4%*
By age	15-24 yrs	158	17.6%	261	21.4%	282	19.1%	124*	21.4%
	25-34 yrs	328	36.6%	437	35.8%	527	35.7%	199	34.4%
	35-44 yrs	239	26.7%	275	22.5%	336	22.8%	97	16.7%
	45-54 yrs	123	13.7%	170	13.9%	238	16.1%	115*	19.8%
	55-65 yrs	49	5.5%	78	6.4%	93	6.3%	44	7.7%
By education	None	154	17.2%	152	12.5%	148	10.0%	-6	-1.0%*
	Inc GET	335	37.4%	430	35.2%	415	28.1%	79	13.5%*
	Comp GET	174	19.4%	266	21.8%	374	25.4%	200*	34.0%*
	Matric	159	17.7%	282	23.1%	407	27.6%	248*	42.2%*
	Diploma/Cert	44	0.9%	63	5.2%	90	6.1%	45	7.7%
	Degree	16	4.1%	26	2.1%	39	2.6%	22	3.8%
Total		**896**	**100%**	**1,222**	**100%**	**1,476**	**100%**	**580**	**100%**

Source: October Household Survey 1995**;** Labour Force Surveys, September 2001 and 2006 (Statistics South Africa).
Notes: 1.The broad labour force consists of the employed plus the unemployed according to the expanded definition of unemployment.
2. GET refers to General Education and Training. Complete GET refers to individuals who have completed either Grade 9, 10, or 11.
3.*indicates that the change was significant.

The feminisation of the South African labour force (Oosthuizen, 2006) is evidenced by the significant increase in the number of females in the Mpumalanga labour force. The share of females increased significantly since 1995, so that by 2006 the labour force in Mpumalanga was evenly split between males and females. Females accounted for more than 62% of the net increase in the labour force of the province. The past decade has also seen a significant increase in the number of youth aged from 15 to 24 years in the labour force, representing just over 21% of labour force growth. Another significant result seen above is that the workforce in Mpumalanga has become better educated, as evidenced by the declining share of lesser educated individuals accompanied by the rising proportion of individuals with higher levels of education. Since 1995, there was a significant drop in the share of the labour force with no education (17 % to 10 %) and incomplete GET qualifications (37% to 28%), along with a significant rise in the percentage of Matric holders and those with a complete GET education (roughly 10 and 6 percentage points respectively). Furthermore, over 42 % of the growth in the labour force was due to more individuals matriculating.

The significant growth in the numbers of females and Africans in the Mpumalanga labour force suggests a rise in the labour force participation rates for these cohorts since 1995. Hence, we now turn to estimates of labour force participation rates in the province by race and gender.

Labour Force Participation

The labour force participation rate (LFPR) measures the overall probability of an individual being a member of the labour force 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 3 below presents broad LFPRs for Mpumalanga in 2001 and 2006 by gender and race as well as regional and national figures. Overall,

the proportion of individuals between the ages of 15 and 65 years who are members of the broadly defined labour force in the Mpumalanga province rose from 54.9 % in 1995 to 65.3 % in 2001. This change was significant at the 5 % level. However, there was no significant change in the 2001 to 2006 period.

Table 3: Broad Labour Force Participation Rates by Race, and Gender, 2001-2006

		Mpumalanga			Gauteng	Limpopo	South Africa
		1995	2001	2006			
Gender	Male	66.0%*	70.3%*	69.9%	83.3%*	58.0%	72.0%*
	Female	44.6%*	60.7%*	65.1%	73.3%*	57.7%	64.3%*
Race	African	54.0%*	64.5%*	67.2%	80.1%	57.4%	67.3%*
	Coloured	60.6%	81.5%	66.5%	86.5%	73.7%	71.4%
	Indian	57.6%	66.4%	83.2%	66.8%	75.8%	63.8%
	White	62.4%*	73.6%*	69.7%	71.3%	69.5%	71.2%*
Total		54.9%	65.3%	67.4%	78.5%	57.8%	68.0%

Notes: * Indicates a significant difference at 5% between males and females, or Africans and Whites.

Overall, the LFPR in Mpumalanga in 2006 (67.4%) while similar to the national average (68%) is significantly higher than that in Limpopo (57.8%), and lower than the figure for Gauteng (78.5%). In 1995 and 2001, the female LFPR in Mpumalanga was significantly lower than that of males. In 2006, this gap in LFPRs decreased and this difference was no longer statistically significant at 5 %. The LFPR for Africans in Mpumalanga was significantly lower than that for Whites in 1995 and 2001, but not in 2006. The disappearance of a significant difference by 2006 in LFPRs by gender and race is an encouraging result for the Mpumalanga labour market.

During the 1995 to 2001 period, there was a significant increase in the LFPR of females in Mpumalanga from 44.6 % to 60.7%. During this period, the LFPRs for Africans, Coloureds and Whites in Mpumalanga also increased significantly by at least 10 percentage points. Over the years, the LFPR for Africans increased faster than that for Whites, and in 2006 there was no statistical significant difference in LFPRs for these two race groups. While the estimates above suggest a significant change took place in the Mpumalanga labour force in between 1995 and 2001, changes from 2001 to 2006 were statistically insignificant.

The above results imply that while there was an initial burst in LFPRs from 1995 to 2001, by 2006 the LFPRs in Mpumalanga had stabilized. This may represent a new Post-Apartheid labour market, where participation rates initially went up for various reasons, but have now moved to towards their new equilibrium levels. This seems to suggest that perhaps unemployment rates that increased initially in Mpumalanga due to the flood of new labour market entrants are now stabilizing.

We now analyse whether the Mpumalanga economy has been successful in creating jobs to keep up with the pace of labour force expansion. Table 4 compares broad and narrow estimates of employment, unemployment, and the total labour force from 1995 to 2006. From the information below, it is clear that growth in unemployment in Mpumalanga over this period has been rapid, with the rates of broad and narrow unemployment growth exceeding that of employment growth by factors of nearly 2 and 4 respectively, albeit from a relatively smaller base.

Table 4: Employment and labour force growth in Mpumalanga, 1995-2006

Category	1995(Oct.)	2006 (Sep.)	Change 95-06		Target growth rate	Employment Absorption rate
			Absolute	Percentage		
Broad definition estimates						
Employment	585,433	905,911	320,478	54.7%	98.9%	55.3%
Unemployment (broad definition)	310,974	569,707	258,732	83.2%		
Labour force	896,407	1,475,618	579,211	64.6%		
Official definition estimates						
Employment	585,433	905,911	320,478	54.7%	95.1%	57.5%
Unemployment (strict definition)	115,514	352,016	236,502	204.7%		
Labour force	700,947	1,257,927	556,980	79.5%		

Sources: October Household Survey 1995, Labour Force Surveys, September editions (Statistics South Africa).
Notes: 1. The expanded labour force consists of the employed plus the unemployed according to the expanded definition of unemployment.
2. The expanded definition of employment defines the unemployed as those individuals within the economically active population who (a) did not work during the seven days prior to the interview and (b) want to work and are available to start work within two weeks of the interview. It differs from the official definition in that it includes 'discouraged workseekers'.
3. Prior to mid-2004, the reference period in criterion (b) of the unemployment definitions was one week.
4. 1995 data is reweighted according to the 1996 Census. Data from 2000 onwards has been reweighted according to the 2001 Census.

In the final two columns of the table above we attempt to gauge the actual performance of the economy in job creation. The 'target growth rate' summarises the desired employment growth rate over the period and can be calculated as follows:

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

where EAP refers to the economically active population for group k and L is the number of employed individuals, by any given covariate. Note that because this target growth rate captures the growth required to provide employment to only the new entrants since 1995, it is essentially the rate of growth required to absorb all net new entrants, independent of the unemployment numbers existent in the base year, namely 1995. The employment absorption rate is the ratio between the actual employment growth and the desired (or 'target') rate, and is expressed as a percentage. The closer the employment absorption rate is to 100, the better the actual relative to the desired employment performance (Bhorat 2003a:11).

From the table, we note that if all net entrants into the labour force between 1995 and 2006 were to have found work in Mpumalanga, employment would have had to increase by close to 100 %, under both the narrow and broad definitions. In reality, however, actual employment grew by half of the required rate. Conversely, national estimates of the target growth rate needed for absorption of new labour market entrants are must lower than those for Mpumalanga. The national results for the target growth and employment absorption rate were 69.9% and 49.4% respectively under the broad definition, and 59.3% and 58.2% under the narrow definition. Comparing the results for Mpumalanga with the national estimates, we note that the actual growth in employment in Mpumalanga falls much farther behind the rate required to absorb labour market entrants. For instance, if the narrow definition of employment is adopted, the employment absorption rate for South Africa (58%) is

almost equal to the target growth rate (59%). In contrast, the actual rate of employment growth in Mpumalanga under this definition of employment (58%) falls short of the required rate (95%) buy almost 50%.

While the figures above suggest that the quantity of employment increased during the 1995 to 2006 period and, by inference, more jobs were created over this period than lost, they suggest that the growth in the number of jobs was outstripped by growth in the labour force in the province. Thus we now further investigate the relationship between economic performance in Mpumalanga and job creation in the context of the growing number of labour market participants.

Growth and Employment Trends: Has Growth in Mpumalanga been Jobless?

There has been much debate surrounding the issue of 'jobless growth' in the post-Apartheid South African economy. The term 'jobless growth' may be interpreted in two alternative ways. According to the strict interpretation, jobless growth may refer to a situation in which the general economy is growing but the absolute employment level is stagnant or falling. Alternatively, under the broad definition of the term, jobless growth may describe a situation in which the general economy is growing while the unemployment rate is rising, equating to employment growth lagging behind labour force growth (Bhorat and Oosthuizen, 2006).

The Gross Domestic Product per Region (GDPR) of Mpumalanga increased at the rate of 3.1 % per annum while the broad unemployment rate in Mpumalanga increased from 34.7 % to 41.5 %. Therefore, if the second definition of jobless growth is adopted, the economy of Mpumalanga experienced jobless growth during the past decade. However, if the strict definition of jobless growth is adopted, the hypothesis of jobless growth no longer holds, since during the 1995 to 2005 period, aggregate employment in Mpumalanga increased from approximately 585,000 to 778,000, representing a 32.9 % increase.

We now turn to 'simple elasticity' estimates that describe the relationship between output and employment.[2] Below, we use total employment figures to calculate the GDP elasticity of total employment in the province.

[2] Of course, formal modelling is required to control for a variety of different variables that may impact on the relationship between output and employment, but the estimation of formal output-employment elasticities is beyond the scope of this paper. Consequently, 'simple elasticities' are presented above.

Table 5: Simple GDP 'Elasticity' of Total Employment 1995-2005

	Annual Percentage change in:		$\frac{\Delta Employment}{\Delta GDP}$
	Total Employment	GDPR	
Mpumalanga	2.9%	3.1%	0.92
Gauteng	2.7%	3.6%	0.74
Limpopo	4.1%	3.6%	1.14
South Africa	2.6%	3.3%	0.78

Source: LFS 2006:2 (StatsSA); GDP from StatsSA
Note: 1. The ratio of employment growth to GDP growth presented in the final column is not a true output elasticity of employment.

From the household survey figures presented above, it appears that total employment in Mpumalanga has increased by an average of 2.9 % per annum, which is close to the rate of economic expansion in the province (3.1%). These figures indicate firstly, that output expansion in the province was accompanied by employment growth. Consequently, the simple output-employment elasticity for the 1995-2005 period is 0.92, indicating that every 1 % of GDP growth in the province translates into a 0.92 % increase in employment. Hence, no jobless growth is evident for Mpumalanga.

However, if we consider only the changes in formal non-agricultural employment, a different picture emerges for the Mpumalanga province. The table below attempts to re-estimate simple employment growth elasticities for formal non-agricultural employment for the 2000 to 2005 period[3].

Table 6: Simple GDP 'Elasticity' of Formal non-agricultural Employment, 2000-2005

	Annual % change in:		$\frac{\Delta Employment}{\Delta GDP}$
	Total Employment	GDPR	
MP	-0.3%	3.1%	-0.09
GA	2.8%	4.3%	0.67
LP	2.6%	4.3%	0.60
SA	2.4%	4.0%	0.62

Source: LFS 2006:2 (StatsSA); GDP from StatsSA
Note: 1. Employment excludes the Agriculture, Forestry and Fishing sector, as well as the informal sector. The GDPR estimates used exclude the Agriculture, Forestry and Fishing sector. The estimates must be treated with caution since it was not possible to isolate the informal sector from the GDPR estimates.
2. The GDPR was calculated as the sum of the value added by sector in Mpumalanga in constant 2000 prices plus taxes less subsidies for all products.
3. The ratio of employment growth to GDP growth presented in the final column is not a true output elasticity of employment.

The results from non-agricultural employment contrast with those for total employment in Mpumalanga, showing that on average employment decreased by 0.3% per annum from 2000 to 2005. Consequently, the GDP elasticity of formal non-agricultural employment in Mpumalanga is negative, which seems to suggest that GDP growth during the period was accompanied by a decrease in formal employment outside of the agricultural sector, that is, growth was jobless. The output elasticities for the other provinces for formal non-agricultural employment are lower than those for

3 The OHS 1995 does not provide a reliable estimate of formal sector employment. Consequently, the time period considered was from 2000 to 2005. Furthermore, it was not possible to isolate the informal sector from the GDPR estimates using the data available. The estimates presented here must therefore be treated with caution.

total employment, but are still positive. Hence, only Mpumalanga experienced negative output-employment elasticity in its formal, non-agricultural economy.

Including informal and agricultural jobs in the definition of employment yielded a positive employment-growth elasticity estimate for the province, while when these two sectors were excluded from the employment definition the elasticity estimate obtained was negative suggesting jobless growth. This is an important result and seems to suggest that the main drivers of employment in Mpumalanga are agriculture and the informal sector. This result is further investigated in the following section of this paper, where we re-estimate employment-growth elasticities by sector.

It is worth mentioning, however, that the underlying employment data renders any conclusions regarding jobless growth in the province problematic. The 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[4] (Oosthuizen 2006). Nevertheless, the low GDP-employment elasticity for the formal, non-agricultural sector is a key concern for Mpumalanga.

[4] One of the problems rendering the conclusion of jobless growth in Mpumalanga unsound is that the real GDPR estimates used represent the total output of the South African economy, excluding the Agriculture, Forestry and Fishing sector. However, the employment data, while also excluding this sector, explicitly also excludes the informal sector. Therefore, the elasticity estimates presented here for formal agricultural employment should be approached with caution.

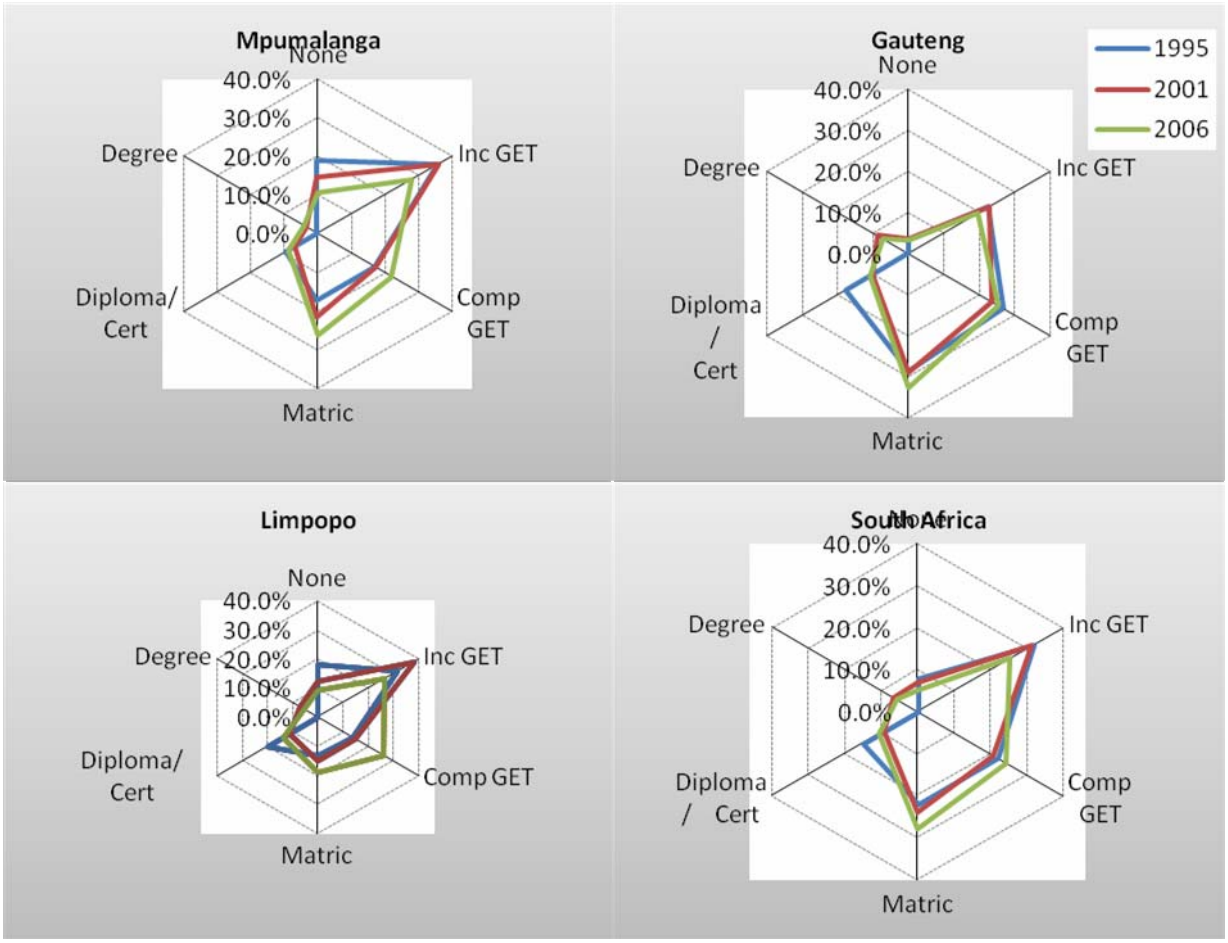
2. Employment in Mpumalanga

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 likley to bear the brunt of unemployment (Bhorat 2003a, 2003b, Oosthuizen 2003). This section investigates the characteristics of the employed in Mpumalanga relative to the employer demand. As a point of departure, we examine the education of employed individuals in the province from 1995 to 2006 relative to other provinces.

Education and employment

The figure below depicts the distribution of employment across six educational categories for Mpumalanga and other provinces for the 1995 to 2006 period.

Figure 2: Educational breakdown of the employed by province, 1995-2006



Sources: October Household Survey 1995, Labour Force Surveys, September editions (Statistics South Africa).
Notes: 1. Data from 1995 is reweighted according to the 1996 Census. Data from 2000 onwards has been reweighted according to the 2001 Census.
2. GET refers to General Education and Training. Complete GET refers to individuals who have completed either Grade 9, 10, or 11.

The first trend that is clear from the figure is the skills-bias in employment, as evidenced by the increase in the percentage of the employed with higher levels of education, that is, Matric and Complete GET, and a fall in the proportion of the employed with lower levels of education. Hence, in the aggregate South African economy, the shares of individuals with no education, or an incomplete GET fell by approximately 10 percentage points from 1995 to 2006, while the proportion of individuals with a complete GET or higher levels of education increased by 10 percentage points during the time. The Mpumalanga province exhibits a similar trend. The share of employed individuals with no education in the province decreased from 19% to 11% over this period, while the share in employment of Matric holders rose from 17% to 26%. The second result worth noting is that the workforce in Gauteng is better educated than in Mpumalanga. For example, in 2006, 11% of the employed in Mpumalanga lacked any education whatsoever, while the corresponding estimate for Gauteng was 3%. Moreover, over 50% of the employed in Gauteng had a Matric qualification or higher in 2006, while in Mpumalanga the share of the employed with at least a complete secondary education was 39%. The proportion of employed without any education in Mpumalanga is also double the national share (5%) suggesting that the employed in Mpumalanga are lesser educated than the rest of South Africa.

The educational profile of the Mpumalanga workforce is closer to that of Limpopo rather than the Gauteng province, although the Mpumalanga workforce does emerge as slightly better educated than the employed in Limpopo.

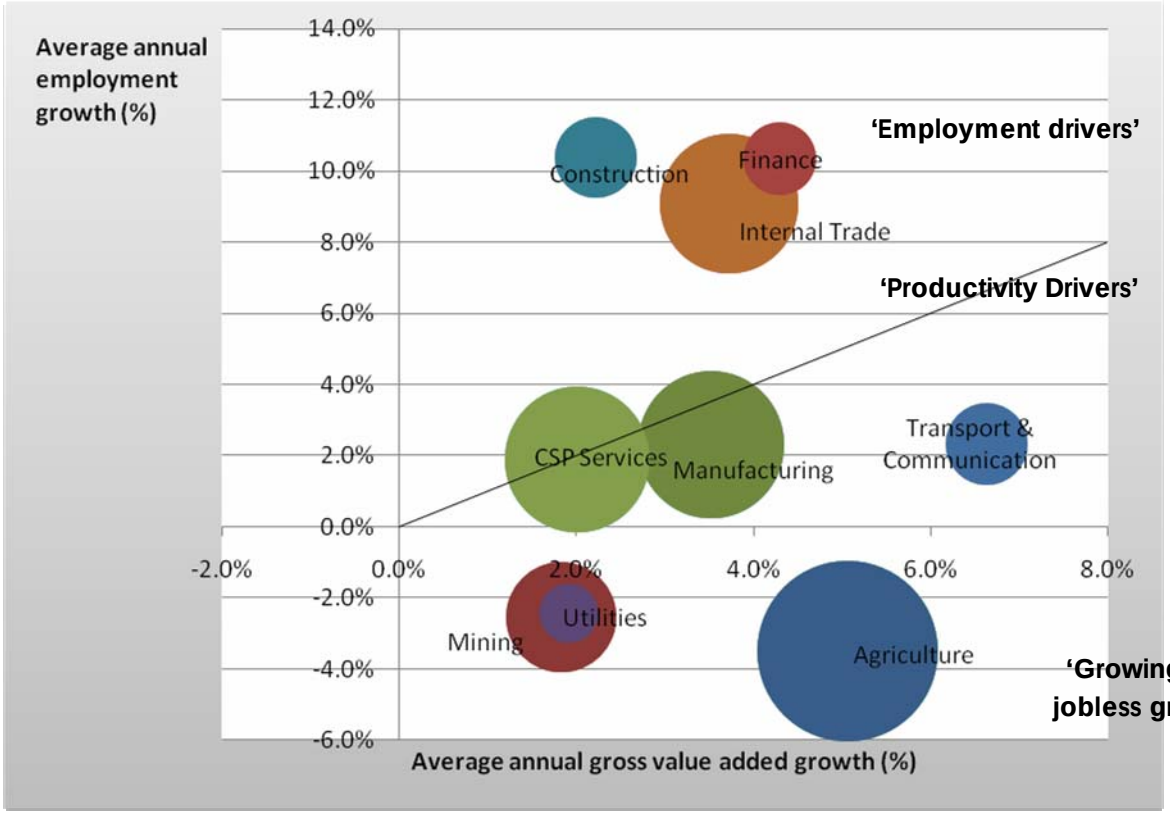
Changes in total employment-Examining the Sectoral Distribution of Employment Change in Mpumalanga 1995-2005

Employment changes are closely related to the general and sector-specific economic conditions prevalent during a given period. Thus, one would expect, ceteris parabis, 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 3, 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 (Oosthuizen, 2006).

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 (Bhorat and Oosthuizen, 2006).

Examining the figure below, we note that most sectors in the Mpumalanga economy have experienced growth in both GVA and employment over the period. It must be noted that the results displayed here do not match the estimates in Figure 2 (previous figure) since the tie period considered is 1995 to 2005 as opposed to 2001-2006. Furthermore, the 1995 data does not allow isolation of the informal sector and thus the estimates shown here are for total employment in each sector.

Figure 3: Gross value added and employment growth by sector in Mpumalanga, 1995-2005



Source: OHS 1995, LFS 2005:2 (2) StatsSA; GVA from StatsSA;
Notes: Constant 2000 prices. 'Community, Social and Personal (CSP) 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

The information presented above shows that only three sectors in Mpumalanga saw declining employment between 1995 and 2005, namely Agriculture, Forestry, and Fishing (3.5% per annum), Mining and Quarrying (2.6% per annum), and Utilities (2.4% per annum), despite the fact that GVA growth across all sectors was positive. At the same time, GVA per worker has risen in five of the nine sectors. In the Finance, Wholesale and Retail Trade, and Construction sector, GVA per worker has fallen as employment has grown at a higher rate than has GVA over the period. Employment expansion in the CSP sector has been roughly proportionate to GVA growth (2 %) in the province during this time.

In Table 7 below, we continue our earlier analysis of jobless growth by calculating simple elasticities by sector. From the elasticity estimates confirm the trends seen in Figure 3 above, with the Construction, Internal Trade and Finance sector yielding the highest employment-growth elasticities (4.67, 2.44, and 2.41 respectively). Primary sectors in Mpumalanga appear to have experienced jobless growth over the 10-year period. Growth has also been jobless in the Utilities sector, which yields an elasticity estimate of -1.27

The negative employment-output elasticity for Agriculture conflicts with our earlier hypothesis that agriculture was a major driver of employment expansion in Mpumalanga in the 1995 to 2005 period. That leaves us with the informal sector as the important driver of employment during this time.

Table 7: Simple GDP 'Elasticity' of total employment by sector 1995-2005

	Average annual percentage change in		$\frac{\Delta Employment}{\Delta GDP}$
	Employment	**Value Added**	
Primary Industries	*-3.2%*	*2.3%*	-1.39
Agric./ For./Fishing	*-3.5%*	*5.1%*	-0.69
Mining	*-2.6%*	*1.8%*	-1.40
Secondary Industries	*4.2%*	*3.1%*	1.35
Manufacturing	*2.3%*	*3.5%*	0.65
Utilities	*-2.4%*	*1.9%*	-1.27
Construction	*10.4%*	*2.2%*	4.67
Tertiary industries	*5.0%*	*3.8%*	1.32
Internal Trade	*9.1%*	*3.7%*	2.44
Transport	*2.3%*	*6.6%*	0.35
Finance	*10.3%*	*4.3%*	2.41
CSP Services	*1.9%*	*2.0%*	0.94
Total	*2.9%*	*3.1%*	0.92

Source: LFS 2006:2 (StatsSA); GDP from StatsSA
Note: 1. The ratio of employment growth to GDP growth presented in the final column is not a true output elasticity of employment.
2. Value added by sector is in constant 2000 prices.

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 various sectors have fared differently in respect to the relationship between output change and employment change, these responses mask significant differences within individual sectors when the level of skill is taken to account (Oosthuizen 2006). The figures below replicate figure 5 for the three categories of employment, that is, skilled, semi-skilled and unskilled employment,[5] across all sectors[6].

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

6 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. Hence, reliable figures for employment by occupation skill level for the Mining sector could not be obtained for 1995.

Figure 4a: Gross value added and employment growth in Mpumalanga, 1995-2005: Skilled Workers

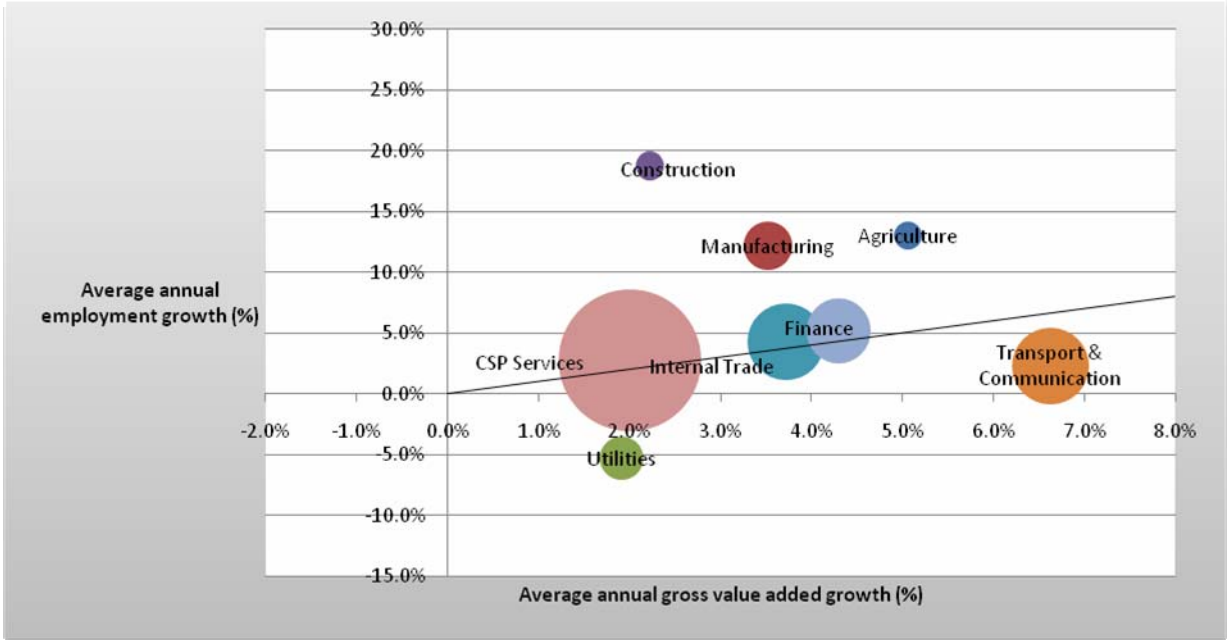


Figure 4b: Gross value added and employment growth in Mpumalanga, 1995-2005: Semi-Skilled Workers

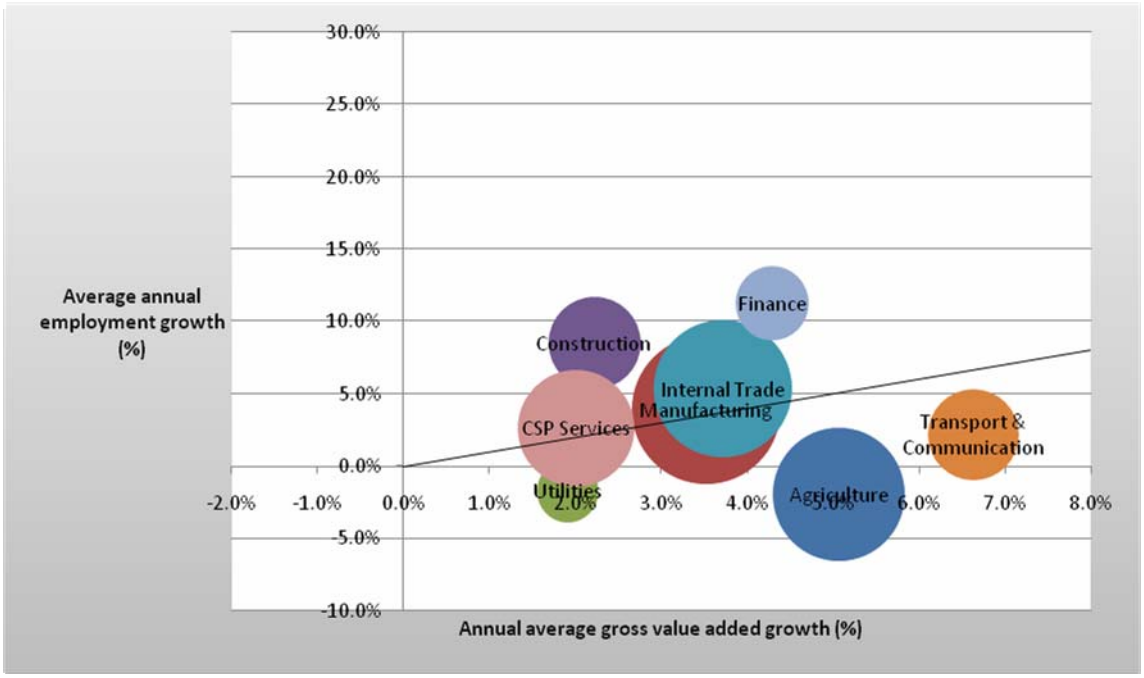
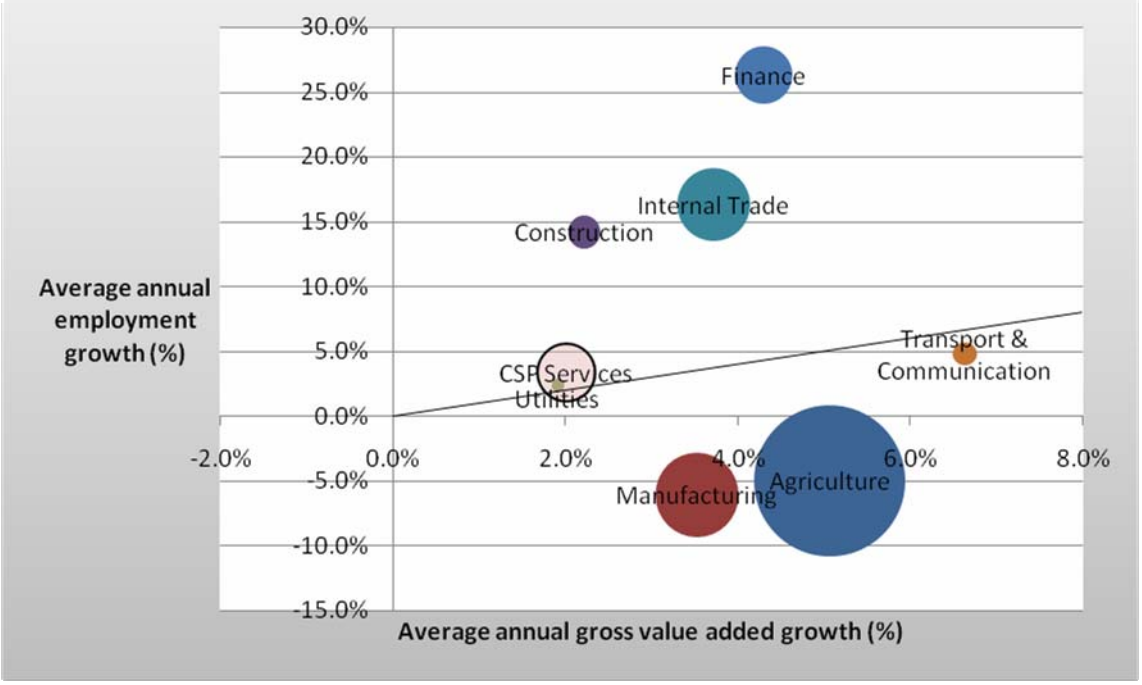


Figure 4c: Gross value added and employment growth in Mpumalanga, 1995-2005: Unskilled Workers



Of the eight sectors in Mpumalanga, several have experienced an increase in the skills intensity of employment through either employment contraction in lower-skilled occupations, or relatively slower growth among these occupations. For example, Agriculture has seen job losses for unskilled and semi-skilled workers (1.9% and 5% per annum respectively), accompanied by rapid employment expansion for skilled workers (13.1% per annum). Similarly, in the Manufacturing sector, unskilled workers have experienced job

Losses (-6% per annum), while skilled and semi-skilled employment has expanded (12.2% and 3.9% per annum respectively). There are sectors, though, that have seen the opposite trend, with lower skilled workers increasing their share of sectoral employment. The fastest growing sector in terms of GVA, Transport and Communication (6.6% growth in GVA per annum), has seen substantially more rapid growth for lower skilled occupations, as has Internal Trade, Utilities and, interestingly, Finance. For five of the sectors, namely Construction, Internal Trade, Transport, Finance and CSP services, employment for all three skills groupings has expanded. This is an important point to highlight: although sectors in the Mpumalanga labour market 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 1995-2005 period has experienced the Skills Biased Technical Change in the South African economy.

The above indicates a challenge for the Mpumalanga economy, in terms of upgrading of supply characteristics of those individuals entering the labour market each year in search of employment (Oosthuizen, 2006).

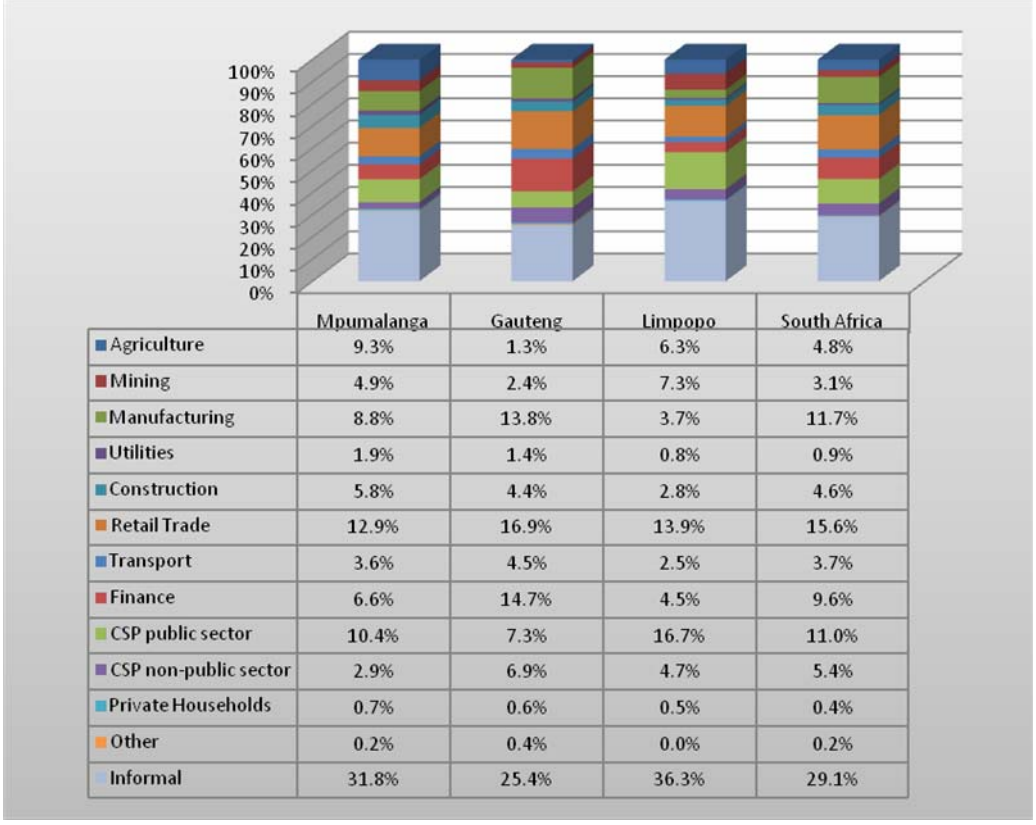
Investigating formal non-agricultural employment in Mpumalanga, 2001-2006

The growth-employment elasticities presented in Section 1 suggested that the informal sector seems to be driving employment in Mpumalanga. Therefore, in this section we separate formal and informal employment. Since the OHS 1995 does not provide reliable information on the informal sector, the changes shown are for the 2001 to 2006 period,

Below we use the LFS data to investigate employment shares by sector in Mpumalanga relative to Gauteng, Limpopo, and South Africa. The economy of the province as a whole is supported principally by manufacturing, mining, agriculture, forestry, power generation and tourism. Mpumalanga is the largest producer of electricity because of large deposits and mining of coal in the Emalahleni (Witbank) area. One of the world's largest producers of stainless steel, Columbus Stainless Steel operates from Middelburg. Sasol is the world's largest producer of synthetic fuel, has a plant in Secunda in Mpumalanga (Source: www.mpumalanga.gov.za).

In keeping with the theme of our previous discussion of the importance of the informal sector in Mpumalanga as a driver of employment, the estimates separate formal employment from the informal sector. Firstly, we note that the informal sector in Mpumalanga is large, accounting for 32% of total employment. The second key result that emerges is that in Mpumalanga and Limpopo primary sectors, namely Agriculture and Mining, are significantly larger than in a richer, more metropolitan province such as Gauteng, while secondary and tertiary sectors, such as Manufacturing and Finance, account for a significantly smaller share of total employment.

Figure 5: Share of total employment by sector in Mpumalanga, 2006



	Mpumalanga	Gauteng	Limpopo	South Africa
Agriculture	9.3%	1.3%	6.3%	4.8%
Mining	4.9%	2.4%	7.3%	3.1%
Manufacturing	8.8%	13.8%	3.7%	11.7%
Utilities	1.9%	1.4%	0.8%	0.9%
Construction	5.8%	4.4%	2.8%	4.6%
Retail Trade	12.9%	16.9%	13.9%	15.6%
Transport	3.6%	4.5%	2.5%	3.7%
Finance	6.6%	14.7%	4.5%	9.6%
CSP public sector	10.4%	7.3%	16.7%	11.0%
CSP non-public sector	2.9%	6.9%	4.7%	5.4%
Private Households	0.7%	0.6%	0.5%	0.4%
Other	0.2%	0.4%	0.0%	0.2%
Informal	31.8%	25.4%	36.3%	29.1%

Source: Labour Force Survey, September 2006 (Statistics South Africa).

The shares presented above for formal employment suggest that the Agricultural sector in Mpumalanga (9.3%) is significantly larger than that in the rest of South Africa (4.8%). In Gauteng, which is a more metropolitan province, Agriculture accounts for only 1.3% of employment, which is significantly lower than in both Mpumalanga (9.3%) and Limpopo (6.3%). Furthermore, Mining, the other primary sector, accounts for double the share of total employment in Mpumalanga (4.9%) and Limpopo (7.3%) than in Gauteng (2.4%), and this difference was also statistically significant at 5%.

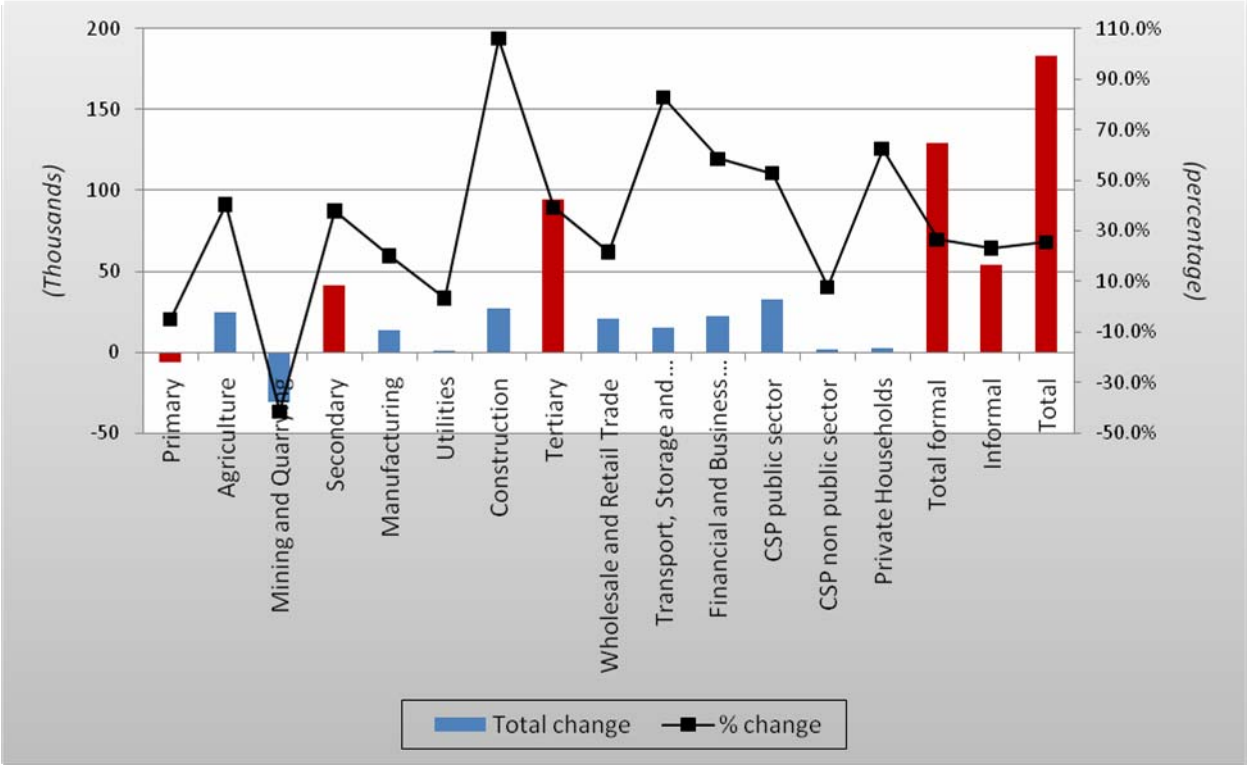
As discussed earlier, agriculture and the informal sector appear to be the main drivers of employment in the province. Indeed, the informal sector in Mpumalanga accounts for a significantly higher share of total employment (31.8%) than in Gauteng (25.4%) as well as the rest of South Africa (29.1%). Agriculture and the informal sector seem to drive employment in the province, while secondary and tertiary sectors are less developed. Indeed, the manufacturing sector is significantly smaller in Mpumalanga (8.8%) than in Gauteng (13.8%). Similarly, the Finance sector is also less developed in the Mpumalanga and Limpopo provinces. Finance accounts for 6.6% of total employment in Mpumalanga, as opposed to double this figure (14.7%) in Gauteng. However, the Finance sector in Mpumalanga accounts for a significantly larger share of employment (6.6%) than in Limpopo (4.5%). Consistent with the rest of the economy, Wholesale and Retail Trade accounts for the largest share of formal employment in Mpumalanga, that is 12.9% of total employment. However, this sector is significantly smaller in Mpumalanga than in the rest of South Africa (15.6%).

Another result is that the Utilities sector in Mpumalanga (1.9%) is significantly larger than in the rest of South Africa (0.9%), an unsurprising result given that SASOL operates in the Secunda plant in the province.

Employment expansion by sector in Mpumalanga, 2001-2006

Since the 1970's there has been a continual shift in the South African economy from primary and secondary activities to the tertiary sector, and this trend continued through the 1990's and into the present (Oosthuizen, 2006). The figure below shows that the output structure in the Mpumalanga economy shows a similar trend. From 2001-2006, approximately 179,000 jobs have been created in the province, while 31,000 jobs have been lost.

Figure 6: Employment expansion by sector in Mpumalanga (formal sector) employment, 2001-2006



Source: LFS September 2001-2006 (StatsSA)
Notes: CSP is Community, Social and Personal Services

According to the figure above, since 2001 primary sector activities in Mpumalanga have declined while tertiary and secondary activities have expanded, with the tertiary sector accounting for nearly 73 % of the increase in formal employment. With the exception of the Mining sector, which contracted by 41% (representing a decrease of 10.1% per annum), and the Utilities sector, in which employment was relatively stable, employment in all other sectors in Mpumalanga grew. Consistent with the aggregate South African economy (see Oosthuizen 2006), the industry that grew the fastest in Mpumalanga was the Construction sector, which grew at a rate of 15.6 % per annum between 2001 and 2006. The formal and informal sectors grew at rates of 4.9 and 4.3 % annually, accounting for 70.5% and 29.5% of the increase in total employment respectively.

The results above support our earlier hypothesis the increase in employment in the province during 2001 to 2006 was largely driven by the agriculture and informal sectors which together accounted for 42.8% of the increase in employment during this time.

Unemployment

In this section we examine the attributes of the unemployed in the Mpumalanga province. Throughout the analysis, the broad definition of unemployment is used, unless otherwise stated. As a point of departure, we consider the demographic characteristics of the unemployed. The figure below presents unemployment rates by race and gender for Mpumalanga for the 1995 to 2006 period. (Confidence intervals have been shown in the appendix.) As previously noted, the labour force in Mpumalanga is predominantly African (91.5%) and White (8%) (LFS September 2006: StatsSA). Therefore, the unemployment rates for Coloureds and Asians have not been shown separately. The persistence of inequality in the Mpumalanga labour market in terms of access to employment by individuals in terms of race and gender is evident. Since 1995, the unemployment rates of Africans far exceed those for Whites, while those for females exceed those for males, and these trends continued into 2006. These differences were significantly different at 5%. However, there were no significant changes in unemployment rates in the province across time. Put differently, unemployment rates in the province have remained high since 1995 and have shown no signs of decline.

Table 8: Unemployment Rates for Mpumalanga by race and gender (Expanded definition), 1995-2006

	1995		2001		2006	
	Rate	95% confidence interval	Rate	95% confidence interval	Rate	95% confide. interval
African	38.7%*	[0.3429 - 0.4308]	43.4%*	[0.4030 - 0.4652]	41.6%*	[0.3966 - 0.4357]
White	8.2%*	[0.0494 - 0.1138]	13.2%*	[0.0667 - 0.1976]	4.7%*	[0.0215 - 0.0718]
Male	26.1%*	[0.2249 - 0.2969]	32.0%*	[0.2777 - 0.3630]	26.1%*	[0.2249 - 0.2969]
Female	51.1%*	[0.4743 - 0.5480]	49.7%*	[0.4660 - 0.5287]	51.1%*	[0.4743 - 0.5480]
Total	34.7%	[0.2989 - 0.3949]	40.5%	[0.3744 - 0.4359]	38.6%	[0.3580 - 0.4141]

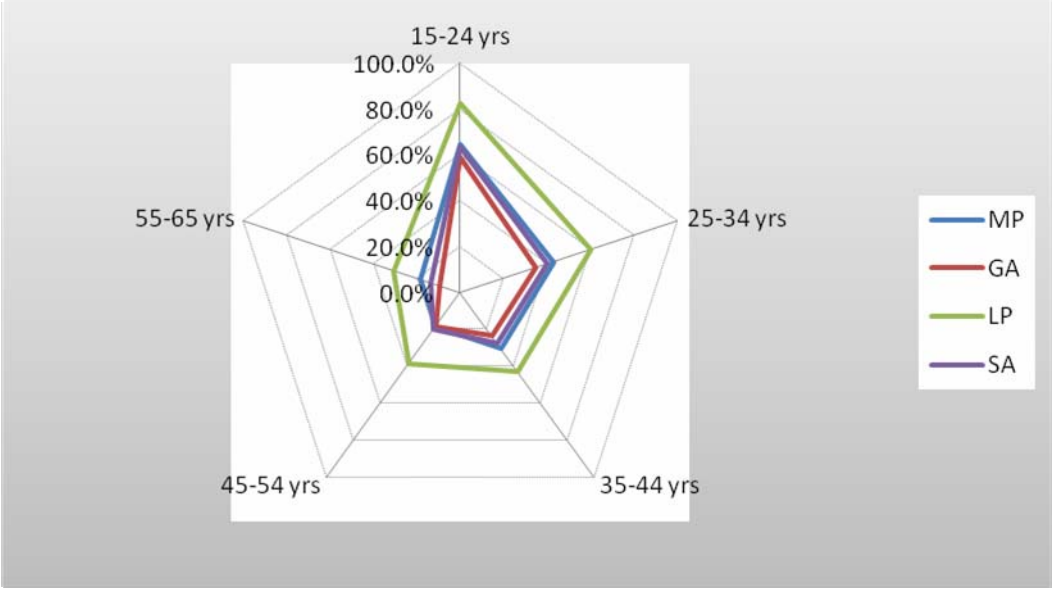
Source: October Household Survey 1995, Labour Force Survey, September 2001- 2006 (Statistics South Africa).
Notes: 1. The expanded definition of employment defines the unemployed as those individuals within the economically active population who (a) did not work during the seven days prior to the interview and (b) want to work and are available to start work within two weeks of the interview. It differs from the official definition in that it includes 'discouraged workseekers'.
2. Prior to mid-2004, the reference period in criterion (b) of the unemployment definitions was one week.
3. 1995 data is reweighted according to the 1996 Census. Data from 2000 onwards has been reweighted according to the 2001 Census.
4. * indicates significant difference between Africans and Whites or males and females at 5%.

In all years unemployment rates for Africans are significantly higher than for Whites in Mpumalanga. In 1995, unemployment among Africans (38.7%) was more than four times among Whites, while in 2006 this ratio had increased to almost ten times. The broad unemployment rates by gender are also telling. Females in Mpumalanga have an unemployment rate roughly twice that of males in all three years, and this difference was significant at 5%. The female unemployment rate was disturbingly high (at close to or above 50 %) during this time.

Differences in the unemployment rates for Mpumalanga from 1995 to 2006 were statistically insignificant at 5 % suggesting that unemployment rates in the province have remained high with no signs of decline in 2006.

We now investigate the age profile of the unemployed in Mpumalanga. The figure below depicts broad unemployment rates by age category for Mpumalanga relative to other provinces in 2006. It is unsurprising that unemployment in Mpumalanga is highest for youth below the age of 35 years, and this is true for the rest of South Africa as well.

Figure 7: Unemployment by age group for Mpumalanga, 2006



Source: Labour Force Survey, September 2006 (Statistics South Africa).

As seen above, unemployment rates for all age groups in Mpumalanga lie close to the national average, while exceeding those for Gauteng and lying lower than the unemployment rates in the Limpopo province. Out of the three provinces shown, Limpopo records the highest unemployment rates for all ages. The distribution of unemployment rates by age group for Mpumalanga exhibits a similar trend to those of the other two provinces and the national sample, with the 15-24 youth age group experiencing the highest unemployment rates, followed by the 25-34 years age category.

Another indicator of unemployment to be investigated is level of education. Table 11, which presents the unemployment rates for Mpumalanga for the 1995-2006 period by the highest level of education completed. A glance at the table reveals firstly that unemployment rates in Mpumalanga are high even for individuals who have completed their secondary education. For instance, Mpumalanga has an unemployment rate of over 40% among individuals with a Matric certificate in 2006. The results suggest that a tertiary education may prove helpful in securing employment. In all three years, the unemployment rates for the tertiary-educated in Mpumalanga are significantly lower at the 5 % level than for lesser educated individuals. In 2006, the unemployment rate for individuals with Diplomas (16%) was less than half the unemployment rate for individuals with lower levels of education (between 34 and 47%). Unemployment is lowest amongst degreed individuals.

Table 9: Unemployment rates by education for MP (expanded definition), 1995-2006

	1995			2001			2006		
Level of education	**No. ('000s)**	**Share**	**Rate**	**No. ('000s)**	**Share**	**Rate**	**No. ('000s)**	**Share**	**Rate**
None	43	*13.7%*	27.7%	45	*9.0%*	29.2%	51	*8.9%*	34.3%
Inc GET	126	*40.5%*	37.6%	167	*33.7%*	38.9%	161	*28.2%*	38.8%
Comp GET	74	*23.7%*	42.3%	141	*28.4%*	52.9%	174	*30.6%*	46.6%
Matric	58	*18.7%*	36.6%	126	*25.5%*	44.6%	171	*29.9%*	41.9%
Dip./Cert	1	*0.4%*	17.5%	5	*1.1%*	42.1%	2	*0.3%*	16.2%
Dip./Cert. & Matric	4	*1.3%*	11.0%	9	*1.9%*	18.3%	9	*1.6%*	11.8%
Degree	1	*0.3%*	5.5%	2	*0.4%*	8.3%	1	*0.2%*	3.2%
Total	**311**	***100%***	**34.7%**	**495**	***100%***	**40.5%**	**570**	***100%***	**38.6%**

Source: October Household Survey 1995, Labour Force Survey, September 2001- 2006 (Statistics South Africa).

Examining the changes from 1995 to 2006 , we note that since 1995, the share of the unemployed with higher levels of education has increased. For instance, from 1995 to 2006, the share of the unemployed with a Matric qualification or higher in Mpumalanga increased from 20.7% to 32%, an increase of more than 10 percentage points. We found no significant change in unemployment rates by level of education from 1995 to 2006 in Mpumalanga. However, this may be a consequence of the reduced sample size resulting from the disaggregation by education.

What these results show is that a tertiary education does not seem to ward off unemployment in Mpumalanga, which seems to contradict the argument that the. Furthermore, the unemployment rates for individuals with a complete Matric or a complete GET were not significantly different to the unemployment rate of individuals with no education, a worrying result. This indicates that a complete Matric does not vastly improve an individuals employment prospects in the Mpumalanga province. This may be a reflection of the quality of secondary schooling provided in terms of equipping students with skills needed in employment. While there are returns to a tertiary education, as manifested by the significantly lower unemployment rates among the tertiary-degreed, this does not guarantee absorption into the job market in the province. This result may have implications for higher educational planners in terms of designing curricula to equip individuals with the required tools for entering the labour market. For instance, many graduates often lack the soft skills required in the job market (Pauw, Oosthuizen & Westhuizen, 2006). An improvement of soft skills and producing graduates in fields that meet market demand may be important determinants of labour market success.

3. Household Attachment and the Unemployed

Household-level constraints on employment generation in Mpumalanga

Our discussion earlier suggested that in Mpumalanga, as for the rest of South Africa, while employment growth since 1995 has been positive, it has been inadequate in terms of absorbing new labour market entrants. We now consider the supply-side constraints that may exist at the household level in an economy. To a certain extent, the unemployed and the characteristics of the households in which they reside in may influence the probability of absorption into the labour market (Bhorat 2005). As a point of departure, we consider 'unemployed households' (households with one or more unemployed residents) as a supply-side constraint to employment growth in the Mpumalanga province. We attempt to investigate the characteristics of the households in which the unemployed in Mpumalanga reside as a possible factor influencing the probability of absorption into the job market.

As a first cut on the nature of household attachment amongst the unemployed in the province, the table below illustrates the distribution of households by household expenditure category, isolating those households with one or more resident unemployed individual. Both estimates for Mpumalanga as well as national estimates are considered. Specifically, the proportion of households in each category for Mpumalanga, as well as the national sample, and then for households with one or more unemployed individuals, is compared. Next, the ratio of households that have an unemployed person within each expenditure category is examined. Finally, the sample is switched from households to individuals, and the share of unemployed and employed individuals who are resident in households defined by their expenditure category is analysed (See Bhorat, 2006).

According to the 2006 GHS (StatsSA), approximately 6 % of the 12 million households in South Africa are located in Mpumalanga. Examining the estimates in the first row of the table, we note firstly that 19.3 % of all households in Mpumalanga fall within the R0-399 per month expenditure category. Of all the households with at least one unemployed resident individual, 20 % fall into this category. Of all the households in this expenditure category, 46.7 % have at least one unemployed individual residing in the household. Interpreting the results in the final two columns of the table and switching to individuals rather than households, we note that 20.4% of all broadly unemployed individuals and 10.9% of employed individuals in Mpumalanga reside in households in the first expenditure category.

Table 10: Distribution of the unemployed across households by household expenditure category

Monthly Household Expenditure category	All households		Unemployed Households		Proportion of unemployed households		Share of unemployed individuals		Share of employed individuals	
	MP	SA	MP	SA	MP	SA	MP	SA	MP	SA
R 0 – 399	19.3%	17.5%	20.0%	21.7%	46.7%	50.5%	20.4%	21.3%	10.9%	10.0%
R 400 –799	32.8%	28.8%	36.5%	33.1%	50.1%	46.9%	37.7%	34.2%	27.5%	20.8%
R 800 –1199	18.4%	17.5%	19.4%	19.1%	47.5%	44.7%	20.4%	20.6%	18.8%	16.7%
R 1200 –1799	9.5%	10.5%	11.3%	10.5%	53.3%	41.0%	10.8%	10.6%	11.6%	12.7%
R 1800 –2499	4.9%	6.5%	4.2%	5.7%	38.8%	36.2%	3.9%	5.4%	7.4%	8.9%
R 2500 – 4999	7.3%	9.2%	5.3%	5.8%	32.3%	25.7%	4.5%	5.2%	11.2%	14.6%
R 5000 – 9999	5.2%	6.0%	2.5%	2.6%	21.4%	17.7%	2.0%	2.1%	8.7%	10.8%
≥ R10 000	1.7%	2.7%	0.4%	0.7%	9.7%	11.5%	0.4%	0.6%	3.8%	5.4%
Total	**99.2%**	**98.6%**	**99.5%**	**99.2%**	**45.0 %**	**40.9 %**	**100%**	**100%**	**100%**	**100%**

Source: GHS 2006 & author's own calculations.
Note: Estimates here are for the weighted sample. Unemployed households are households with at least 1 unemployed individual resident according to the expanded definition. The data presented in columns 1 and 2 do not add up to 100 % since some households either did not report any expenditure or did not know the response(Codes 8 and 9).

From the results above, it is clear that the bulk of households in Mpumalanga and the rest of South Africa lie in the lower three expenditure categories. Hence, about 70.5 percent of all households in Mpumalanga report a monthly expenditure below R 1200, while 52.1 % report an expenditure level of below R 800 per month. The estimates for South Africa are slightly lower than those for Mpumalanga for the bottom three expenditure categories, and higher for the upper expenditure levels suggesting that on average more households in Mpumalanga occupy the lower expenditure categories than the national sample.

The proportion of households supporting one or more unemployed person is higher in Mpumalanga (45%) than the national estimate (40.9%). Examining the proportion of unemployed households within each expenditure range, we note that in Mpumalanga between 47 and 50 % of households with a monthly expenditure of less than R800 are supporting the unemployed, while only between 10 and 32 % of households with an expenditure of above R2499 support at least one unemployed individuals. Put differently, the burden of supporting the unemployed rests with those households at the bottom end of the distribution. Therefore, as Bhorat (2006) notes, lower income levels in households act as a labour supply constraint on employment prospects for individuals.

If we attempt to locate the distribution of unemployed and employed *individuals* across households, the disproportion of income earners relative to zero earners is clear. For example, approximately 58 % of the unemployed in Mpumalanga reside within households in the lower two expenditure categories, while only 38% of employed individuals reside within these vulnerable households. Thus, it is clear that there is a disparity between members of the labour force with a job and those lacking a job, in terms of the expenditure levels of the households they reside in. The unemployed are disproportionately represented at the bottom-end of the country's income distribution. This undoubtedly acts as a labour supply constraint for these individuals (Bhorat 2004).

Comparing the estimates for Mpumalanga with those for South Africa, we note that the estimates for Mpumalanga resemble those for the national sample.

The results above raise questions surrounding the ability of households in Mpumalanga to provide support to their unemployed members. Indeed, in the absence of a fully-developed security system in

South Africa, an important source of resources for unemployed individuals is the households in which they live (Oosthuizen, 2006). Hence below we further examine the characteristics of unemployed households in Mpumalanga.

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. The table below examines the access to income from pensions among the unemployed in Mpumalanga.

Table 11: Household Access to Pensions according to the Number of Unemployed in Household, 2006

	Mpumalanga		Gauteng		Limpopo		South Africa	
No. of unemployed in household	Access rate	share	Access rate	share	Access rate	share	Access rate	share
0	13.4%	48.5%	7.1%	56.5%	22.1%	48.8%	14.0%	55.1%
1	15.4%	30.3%	6.6%	23.8%	21.0%	31.4%	14.4%	26.0%
2	19.7%	14.2%	8.9%	10.8%	23.7%	13.5%	18.4%	11.6%
3	33.1%	4.8%	10.2%	3.7%	32.4%	4.3%	22.4%	4.5%
4+	17.2%	2.2%	40.7%	5.1%	31.0%	2.1%	30.8%	2.8%
Total	15.2%	100.0%	7.5%	100.0%	22.3%	100.0 %	15.0%	100.0%

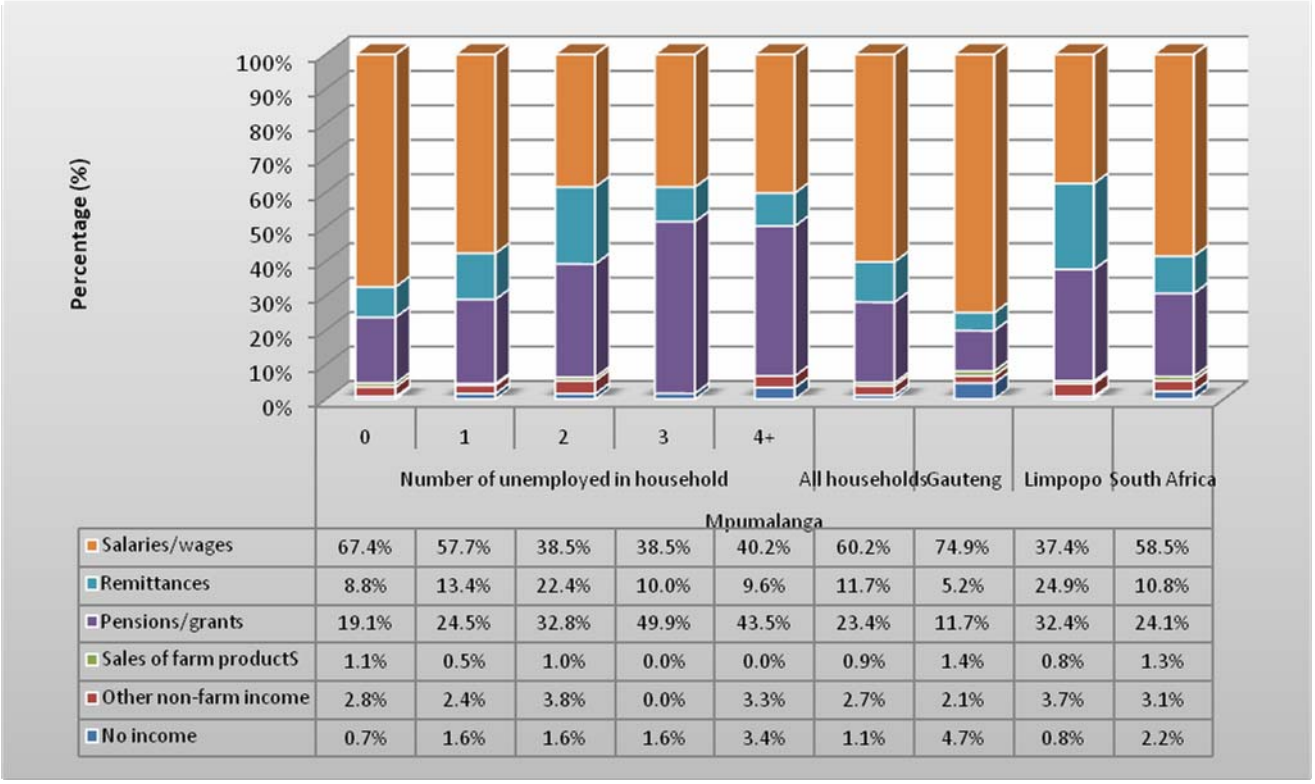
Source: GHS 2006 (StatsSA)

From the above, we note that access rate to pensions in Mpumalanga (15.2%) and Limpopo (22.3%) is double that in Gauteng (7.5%). For households in Mpumalanga with between 1 and 3 unemployed members, the rates of access to pensions are double those for Gauteng. Another interesting result is that the access rate to pensions seems to rise as the number of unemployed members in a household increases (with the exception of households in Mpumalanga with 4 or more unemployed). For instance, the access rate for households in Mpumalanga with no unemployed individuals is 13.4%, whereas the rate for households with 3 unemployed residents is 33.1%. This seems suggestive of the formation of households around pensioners. However conclusions regarding causality cannot be drawn based using the information here.

Next, using the GHS 2006, we investigate the main sources of income for households in Mpumalanga relative to the rest of the country. The figure below shows the main sources of income for households in the province according to the number of broadly unemployed household members. The first 5 columns show the proportion of households in Mpumalanga reporting each source of income as their main source according to the number of unemployed resident in the household (ranging from 0 to more than 4). The sixth column shows the main income sources for the aggregate sample of Mpumalanga households. In the last three columns, the main income sources for all households in Gauteng, Limpopo and South Africa have been shown for the sake of comparison.

Clearly, salaries and wages are the primary income sources for the majority of households in South Africa (58.5%), followed by pensions and grants (24.1%). Naturally, the percentage of households reporting wages as their main source of income falls as the number of unemployed in the household increases. 67% of households in Mpumalanga with no unemployed residents report wages as their main income source, whereas this figure declines to 40% in households with 4 or more unemployed. An interesting result is that income from remittances is also a primary income source for approximately 11% of households.

Figure 8: Household's Main Income Source by Number of Broad Unemployed Household Members, GHS 2006



	Mpumalanga					All households	Gauteng	Limpopo	South Africa
Salaries/wages	67.4%	57.7%	38.5%	38.5%	40.2%	60.2%	74.9%	37.4%	58.5%
Remittances	8.8%	13.4%	22.4%	10.0%	9.6%	11.7%	5.2%	24.9%	10.8%
Pensions/grants	19.1%	24.5%	32.8%	49.9%	43.5%	23.4%	11.7%	32.4%	24.1%
Sales of farm productS	1.1%	0.5%	1.0%	0.0%	0.0%	0.9%	1.4%	0.8%	1.3%
Other non-farm income	2.8%	2.4%	3.8%	0.0%	3.3%	2.7%	2.1%	3.7%	3.1%
No income	0.7%	1.6%	1.6%	1.6%	3.4%	1.1%	4.7%	0.8%	2.2%

Source: GHS 2006 & author's own calculations.
Note: Estimates here are for the weighted sample. Unemployed households are households with at least 1 unemployed individual resident according to the expanded definition. The data presented in columns 1 and 2 do not add up to 100 % since some households either did not report any expenditure or did not know the response. (Codes 8 and 9).

From the above it is clear that the proportion of households in Mpumalanga reporting pensions/grants as their main source of income increases with the number of unemployed household members. Approximately 19% of households in Mpumalanga with no unemployed members reported pensions and grants as their main source of income, and this proportion increases to more than two-fifths of households with 3 or more unemployed residents. This seems to suggest that the unemployed are clustered around households with access to old-age pensions.

Overall the estimates for Mpumalanga resemble the national estimates, but when comparing the results for Mpumalanga with those for Gauteng and Limpopo, some interesting results emerge. The estimates for Mpumalanga tend to fall between those of Gauteng and Limpopo. The proportion of households identifying wages as their main source of income is the highest in Gauteng (75%) followed by Mpumalanga (60%), and then Limpopo (37%). Furthermore, the proportion of households deriving income primarily from pensions and grants in Gauteng (12%) is roughly half that in Mpumalanga (23%) and Limpopo (32%). Another key result is that the proportion of households identifying income from remittances as their main source of income in Mpumalanga (nearly 12%) is more than double that in Gauteng (5%). The percentage in Limpopo is even higher than in Mpumalanga (25%). This reflects on the discussion surrounding cross-border migration of labourers out of Mpumalanga and Limpopo. The issue of regional migration in from Mpumalanga with be further discussed in a separate section.

Next, we examine the distribution of the unemployed across households by the number of wage-earners or pensioners. A worrying result is the large share of the unemployed in Mpumalanga who are

resident in households without any wage-earners or pensioners (30%). This closely resembles the national estimate (29%).

Table 12: Distribution of the Unemployed across wage-Earning/pension Households, LFS September 2006

Number of employed/pensioners in household	*Mpumalanga*		*Gauteng*		*Limpopo*		*South Africa*	
	'000s	*share*	*'000s*	*share*	*'000s*	*share*	*'000s*	*share*
0	171	30.0%	405	23.7%	430	44.5%	2,208	29.0%
1	263	46.2%	958	56.1%	397	41.1%	3,680	48.4%
2	100	17.5%	259	15.1%	111	11.5%	1,284	16.9%
3	27	4.7%	77	4.5%	21	2.2%	337	4.4%
4+	13	2.2%	12	0.7%	7	0.7%	121	1.6%
Total	570	100.0%	1,709	100.0%	966	100.0%	7,607	100.0%

Source: LFS 2006: 2 (Statistics SA)
Notes: 1. Figures are based on weighted household samples.
2. The expanded definition of unemployment has been used.

In Mpumalanga, the proportion of the unemployed with lacking access to wage-income or support from pensions (30%) is larger than in Gauteng (about 24%). The unemployed in Limpopo are worse off than Mpumalanga, with about 45 % of the 966,000 unemployed individuals without any wage-earners or pensioners. The national distribution of the unemployed across wage-earning or pension households resembles that of Mpumalanga. The marginalisation of the unemployed in households with little or no access to wage-income or support from pensions raises the question on how these households are supporting themselves.

4. Migration

There is a considerable amount of discussion surrounding cross-border migration from the Mpumalanga and Limpopo provinces into the neighbouring Gauteng province (Oosthuizen & Naidoo, 2005).

Migrant workers are differentiated from other migrants in that the former leave their families behind in search of employment opportunities in relatively distant areas and being absent from their 'sending households' for extended periods of time in what has become known as "circular internal labour migration" (Oosthuizen & Naidoo, 2005). The Labour Force Survey of September 2006 provides some information on migrant labour. Importantly, the survey identifies migrant workers whose sending households lie within South Africa's national borders, implying that these are South African migrant workers. While the LFS data for 2005 provides some information on the characteristics of migrant workers, such as educational attainment and gender, it omits important variables such as the age and race of the migrant workers. It is worth noting that the information in the migrant section is based on information obtained from members of the household regarding the migrant, and not the migrants themselves.

We begin this section by placing migrant labour from Mpumalanga into a national context. Table 15 below shows the location of migrants workers within South Africa by province of origin (The complete table is shown in the appendix). The LFS estimates there to be approximately three million South African migrant workers, representing 6.4 percent of the national population. Of these, approximately 42 % (or 1.3 million) were reported to be seeking work or actually working in Gauteng, making this province by far the most popular destination for migrant workers. (LFS September 2005). This is further evidenced by the fact that in all provinces, except Gauteng, migrant labourers account for between 2 percent and 6 percent of the population, while in Gauteng, this proportion is nearly 14 percent, or about one in seven.

Table 13: Origin and Destination Provinces of Migrant Workers in South Africa

		Origin Province								
		Gauteng		Mpumalanga		Limpopo		Total Migrants SA		Share of
'000s		'000s	Share	'000s	Share	'000s	Share	'000s	Share	Pop.
Destination Province	WC	1	*1.0%*	3	*1.2%*	1	0.2%	**261**	**8.7%**	**5.6%**
	EC	1	*0.9%*	1	*0.5%*	3	0.4%	**217**	**7.3%**	**3.1%**
	NC	0	*0.0%*	0	*0.1%*	0	0.0%	**47**	**1.6%**	**5.2%**
	FS	0	*0.3%*	1	*0.3%*	3	0.4%	**65**	**2.2%**	**2.2%**
	KZN	1	*1.6%*	5	*2.3%*	1	0.1%	**549**	**18.4%**	**5.7%**
	NW	8	*10.3%*	3	*1.2%*	10	1.3%	**186**	**6.2%**	**4.9%**
	GA	49	*63.8%*	113	*51.6%*	529	67.6%	**1,253**	**41.9%**	**13.8%**
	MP	7	*9.0%*	84	*38.1%*	65	8.3%	**181**	**6.1%**	**5.6%**
	LP	1	*1.3%*	6	*2.8%*	161	20.6%	**179**	**6.0%**	**3.2%**
	Foreign	5	*6.0%*	2	*1.0%*	5	0.6%	**27**	**0.9%**	**...**
Total		*77*	*100%*	219	*100.0%*	*782*	**100%**	**2,990**	**100%**	**6.4%**
Share of pop.		**0%**		**6.8%**		**13.9%**		**6.4%**		

Source: LFS 2005:2 (Statistics, South Africa)
Note: Shaded areas indicate regional migration within the province.

The first result that emerges from the table above is that there is a considerable amount of internal migration within the provinces themselves. In Gauteng, 63.8% of the 77,000 migrants are regional migrants within the province, while the corresponding estimate for Mpumalanga is 38.1% of a total of 219,000 migrants. An interesting result is that the Mpumalanga province draws a significant number of migrant workers from Limpopo, that is, a stock of 65,000 migrants from Limpopo in 2005.

6.8% of the population of Mpumalanga were migrants to other provinces in 2005, while the corresponding estimate of Limpopo was double this result (13.98%). Furthermore, 13.9 of the population resident in Gauteng were migrants from other provinces in 2005. A dominant share of migrants in Gauteng are from Limpopo (42.2%), while migrants from Mpumalanga constitute 9% of the migrant population in Gauteng (See figure x in the appendix).

Remittances

Apart from relieving financial pressures on sending households, perhaps the most common reason for engaging in migrant labour is to actively help support family and other sending household members. This is done by remitting money or goods to the sending household (Oosthuizen and Naidoo). Table 16 below presents a summary of remittances by migrants to their sending households, as indicated by sending households in the LFS. It is important to recognise that the accuracy of these figures is uncertain, meaning that comparisons outside of the dataset might not be legitimate. In total, according to the September 2005 LFS, the twelve-month period preceding the survey saw approximately R717 worth of goods and money remitted to sending households in Mpumalanga from migrants working in Gauteng, representing 62.4% of the provinces total annual inflow from internal remittances. We estimated that of the approximately 9 billion of total internal remittances in South Africa, total internal remittances in South Africa, approximately 12.8 % are into Mpumalanga.

Table 14: Value of Remittances from Migrant Workers in South Africa, 2005 (Millions)

		Origin Province										%
	Rand (Millions)	**WC**	**EC**	**NC**	**FS**	**KZN**	**NW**	**GA**	**MP**	**LP**	**SA**	**share**
Destination	Western Cape	127	296	7	18	4	7	1	16	1	**478**	***5.3%***
	Eastern Cape	1	427	0	7	16	4	14	4	6	**480**	***5.3%***
	Northern Cape	10	5	81	9	2	64	0	0	…	**172**	***1.9%***
	Free State	0	31	3	265	4	9	0	2	9	**324**	***3.6%***
	KwaZulu Natal	19	130	0	10	1,28 8	2	9	31	1	**1,48 8**	***16.6 %***
	North West	0	9	4	62	3	451	55	13	18	**615**	***6.8%***
	Gauteng	0	649	11	266	377	275	148	717	1,55 1	**3,99 5**	***44.5 %***
	Mpumalanga	0	5	0	30	29	43	59	347	191	**704**	***7.8%***
	Limpopo	0	3	0	6	1	9	7	18	683	**728**	***8.1%***
	Total in SA	156	1,55 5	106	674	1,72 5	865	294	1,14 9	2,46 0	8,98 4	***100%***
	% share	***1.7***	***17.3***	***1.2***	***7.5***	***19.2***	***9.6***	***3.3***	***12.8***	***27.4***	***100***	
	% of GGP	**0.1 %**	**1.8%**	**0.4 %**	**1.2 %**	**0.9%**	**1.2 %**	**0.1 %**	**1.6%**	**3.4%**	**0.8%**	
	Foreign	146	5	21	2	81	18	298	5	48	**625**	***6.5%***
	Total	**303**	**1,56 1**	**127**	**675**	**1,80 8**	**883**	**592**	**1,15 5**	**2,51 0**	**9,61 4**	***100%***

Source: LFS 2005:2 (Statistics, South Africa); GGP from Quarterly Report, StatsSA.

There are two key results to be discussed based on the estimates presented in the table above. Firstly, the highest remittances are received from migrants working in Gauteng. In total, approximately 3,995 million rand of remittances in the form of goods and money flow annually out of Gauteng to other provinces in South Africa, representing 44.5% of the country's total internal remittances. The second noteworthy result here is that the provinces receiving the highest remittances annually from migrant workers are Mpumalanga (Rand 1,155 million), Limpopo (Rand 2,510 million), and the Eastern Cape (Rand 1,516 million). Inflows from internal remittances make up 1.6%, 3.4% and 1.8% of the GDPR of Mpumalanga, Limpopo and the Eastern Cape respectively. Thus, remittances from migrant workers play an important role in the economy of these three provinces.

From the data discussed above, the 'pull' of the Gauteng labour market to migrants from Mpumalanga is clear. As noted in Oosthuizen and Naidoo (2005), there are 'push' and 'pull' factors at play here. The flow of in-migrants into Gauteng from Mpumalanga is likely to be closely linked to economic conditions in Gauteng,and this pull factor would be connected to the push factor of (relative) poverty in the Mpumalanga. In all likelihood, migration from Mpumalanga into Gauteng is likely to continue as long as labour market opportunities remain.

5. A Multivariate analysis of Employment and Earnings in Mpumalanga

The descriptive analysis in the preceding sections of this report has shown how several factors may influence the experiences of individuals in the Mpumalanga labour market, and that there is not just a single factor at play. In reality a wide range of variables simultaneously interact to determine these various labour market outcomes. A simple descriptive analysis cannot take account of these variables simultaneously. An analysis by education, for example, ignores the different age, occupational or sectoral distributions that exist in the groups being analysed. The next step, therefore, is to combine the variables identified in the descriptive analysis into an econometric model. This model will determine the importance of all these variables in explaining labour force participation, employment and earnings (see Bhorat & Leibbrandt, 2001 & Oosthuizen, 2006).

The model is set up in three stages. During the first stage, we start with a full sample of potential labour market participants in Mpumalanga and estimate a participation probability model for the province. Then in the second stage we estimate an employment probability model for the reduced sample of Mpumalanga labour force participants. The final stage involves estimating an earnings function using the sample of employed individuals in the province.

This process is followed because of the fact that the sample of labour market participants is highly unlikely to be a random sample of the population of working age. The group of potential labour market participants has already undergone some kind of selection process whereby they made the decision to enter the labour market or not. The participation equation, therefore, attempts to shed some light on the factors impacting on an individual's decision to enter the labour force in the province. A probit model is used to estimate the participation equation. Once the participants are determined, another probit model is used to derive the employment equation conditional on the characteristics of all Mpumalanga labour market participants. The final stage models the earnings of those individuals in Mpumalanga who found employment (See Bhorat & Leibbrandt, 2001:112,113 & Oosthuizen, 2006: 53).

The Heckman two-step approach is used to cope with the sample selection problem. After the Mpumalanga labour force participation probit is estimated, the results are used to derive the inverse Mills ratio (lambda) to be included in the employment probit. The inverse Mills ratio (lambda) is a measure of the extent to which the sample suffers from selectivity bias. The inclusion of lambda makes the employment probit conditional on positive labour force participation. The selection lambda derived from the employment probit is then included in the earnings equation (Bhorat & Leibbrandt, 2001: 114; Oosthuizen, 2006: 55).

Estimates for Mpumalanga for 2006 are examined relative to those for the national sample. For the covariates which are dummies, the referent variables were as follows for all the Mpumalanga equations:

- Race: White
- Gender: Male
- Sector: Manufacturing
- Occupation: Elementary workers

For the equations for South Africa, the referent province was Gauteng.

Table 15 below shows the results obtained from the labour force participation probit for Mpumalanga for 2001 and 2006. The equation for South Africa has also been estimated. While overall the determinants of participation in the labour force seem to be the same in Mpumalanga in both years, as well as consistent with those for the rest of the country, some interesting results emerge.

Table 15: Labour Force Participation Equations using the Broad Definition of Unemployment, 2006

	Mpumalanga				*South Africa 2006*	
	2001		*2006*			
	Marginal Effects	*x-bar*	*Marginal Effects*	*x-bar*	*Marginal Effects*	*x-bar*
25-34	0.3752*	0.2660	0.6563*	0.1654	0.6172*	0.1713
35-44	0.3461*	0.1690	0.6624*	0.1080	0.6286*	0.1112
45-54	0.2837*	0.1173	0.6482*	0.0820	0.5720*	0.0844
55-65	0.1482*	0.0886	0.5105*	0.0563	0.4070*	0.0625
Female	-0.1094*	0.5164	-0.0930*	0.5099	-0.1025*	0.5078
African	0.1280*	0.9090	0.3775*	0.0017	0.2723*	0.7941
Coloured	0.1406	0.0062	0.4678	0.0017	0.2668*	0.0881
Asian	-0.0765	0.0051	0.3394**	0.9297	0.0018	0.0245
No education to grade 8	0.0054	6.1355	0.0466*	4.8102	0.0517*	5.1768
Grade 9-11	-0.0078	1.2128	0.0409*	0.9259	0.0488*	1.0433
Grade 12	0.2743*	0.2262	0.3250*	0.1775	0.1952*	0.2068
Diploma	-0.0114	0.0450	-0.0079	0.0382	0.0104	0.0547
Degree	-0.0097	0.0302	-0.0645	0.0257	-0.0076	0.0406
Eastern Cape	…	…	…	…	-0.0602*	0.1456
Northern Cape	…	…	…	…	-0.0049	0.0231
Free State	…	…	…	…	-0.0764*	0.0626
KwaZulu Natal	…	…	…	…	-0.0401*	0.2101
North-West	…	…	…	…	-0.0471*	0.0711
Western Cape	…	…	…	…	-0.0138	0.1001
Mpumalanga	…	…	…	…	-0.0148	0.0741
Limpopo	…	…	…	…	-0.0752*	0.1135
Children under 7			-0.0055	1.0821	0.0057**	1.0361
Children 8 to 15	-0.0905*	0.1503	-0.0554*	1.1666	-0.0455*	1.0606
People over 60	-0.1378*	0.1350	-0.0923*	0.2991	-0.1000*	0.3191
Observed Probability	0.6531		0.4200		0.4297	
Predicted Probability	0.7020		0.3777		0.3859	
Number of observations	5679		7871		106563	
Chi	915.04*		2400.77*		23042.41*	
Pseudo R	0.2476		0.5328		0.4993	

Source: LFS 2001:2 and LFS 2006:2 (Statistics South Africa)
Notes: * Significant at the 1% level
** Significant at the 5 % level.

Firstly, the positive and statistically significant coefficients for the four age-groups in both years indicate that individuals aged 15 to 24 years in Mpumalanga are least likely to enter the labour force. Furthermore, it appears that this difference increased over the 2001 to 2006 period. For example, in 2001, adults aged between 25 and 44 years in Mpumalanga were between 35 and 37 % more likely to enter the labour force than youth in the 15-24 years age bracket. By 2006, this difference increased and adults aged between 25 to 44 years were 66 % more likely to enter the labour force than youth.

The result for Mpumalanga is consistent with that for South Africa for 2006, but the coefficients for Mpumalanga are slightly higher, indicating that the difference in the likelihood of participation in the labour force by age is more pronounced in the province relative to the rest of the country.

In both years, females in Mpumalanga were less likely to enter the labour force than males (between 9 and 10 %), given the negative and significant coefficients for females. In 2001, Africans in Mpumalanga were 13 % more likely to enter the labour force relative to their White counterparts. In 2006, the likelihood of Africans entering the labour force in Mpumalanga relative to Whites increased to almost 38%.

The effect of an individual's education is captured by the education splines included in the probit. Positive coefficients indicate that higher levels of educational attainment coincide with a higher probability of labour force participation (Oosthuizen, 2006: 54). In 2001, the only the Matric spline is statistically significant for Mpumalanga, suggesting that an education of Matric or higher increased the likelihood of an individual participating in the labour force by 27 % in that year. However, an education of less than Grade 12 in 2001 did not affect the likelihood of labour force participation in the province. Over the 5 year period, the importance of education in determining labour force participation in Mpumalanga seems to have increased. Since all education variables are statistically significant at 1%, with the exception of Degrees and Diplomas. The significantly insignificant coefficients for the two tertiary education splines mean that education beyond Grade 12 does not increase the likelihood of entering the labour force.

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 in Mpumalanga and the rest of South Africa. The number of children under the age of 15 years has a negative coefficient in both years, suggesting 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 (Oosthuizen, 2006). However, the coefficient decreased over the five-year period (from 14% to 9 %), suggesting that the importance of pensioners as a source of support in households in the province may have decreased.

Another result worth mentioning is that the coefficient for Mpumalanga in the labour force participation for South Africa in 2006 is statistically insignificant, suggesting that individuals from Mpumalanga are as likely to enter the labour force as their counterparts in the Western Cape.

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 (Table 18 below). The same referent variables are utilised, namely 15 to 24 years, African, and Male.

Firstly, the results indicate that the coefficients in both years for lambda or the inverse Mills ratio are both negative and statistically significant in all three equations. 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 16: Employment Equation using the Broad Definition of Unemployment, 2006

	Mpumalanga				*South Africa 2006*	
	2001		***2006***			
	Marginal Effects	***x-bar***	***Marginal Effects***	***x-bar***	***Marginal Effects***	***x-bar***
25-34	0.0890	0.3581	-0.0337	0.3580	0.0394	0.3581
35-44	0.2421*	0.2251	0.0760	0.2279	0.1453	0.2271
45-54	0.3188*	0.1397	0.1924*	0.1599	0.2307*	0.1514
55-65	0.3765*	0.0630	0.2497*	0.0636	0.3039*	0.0657
Female	-0.1485*	0.4798	-0.2427*	0.5011	-0.1307*	0.4878
African	-0.3163*	0.8972	-0.3573*	0.9187	-0.2141*	0.7687
Coloured	-0.3918*	0.0078	-0.6296*	0.0020	-0.0227*	0.0951
Asian	-0.0388	0.0051	-0.0337	…	-0.2833	0.0261
None to grade 8	0.0047	6.1598	-0.0087	6.5903	-0.0179*	7.0916
Grade 9-11	-0.0468*	1.3594	-0.0153	1.6122	-0.0010	1.7843
Grade 12	0.0458	0.3043	-0.0349	0.3627	0.0316*	0.3952
Diploma	0.2206*	0.0625	0.2720*	0.0790	0.1981*	0.1097
Degree	0.0325	0.0422	0.1001	0.0509	0.0304	0.0795
Eastern Cape	…	…	…	…	-0.0466*	0.1151
Northern Cape	…	…	…	…	-0.0636*	0.0238
Free State	…	…	…	…	-0.0223	0.0624
KwaZulu Natal	…	…	…	…	-0.0169	0.1947
North-West	…	…	…	…	-0.0909*	0.0710
Western Cape	…	…	…	…	0.0621*	0.1167
Mpumalanga	…	…	…	…	-0.0181	0.0725
Limpopo	…	…	…	…	-0.1732*	0.0856
Lambda	-0.1874**	0.4178	-0.2598*	0.4166	-0.1902*	0.4402
Observed Probability	0.5941		0.6126		0.6264	
Predicted Probability	0.6194		0.6564		0.6616	
No. of observations	3658		7871		43028	
Chi	507.05*		2400.77 *		2979.96*	
Pseudo R	0.1670		0.5328		0.1707	

Source: LFS 2001:2 and LFS 2006:2 (Statistics South Africa)
Notes: * Significant at the 1% level
** Significant at the 5 % level.

In 2001 for Mpumalanga, all age-group coefficients were positive and statistically significant, except the coefficient for 25 to 34 year-olds, which is insignificant. In 2001, individuals between 35 and 44 years of age were 24 % more likely to be employed than their 15 to 24 year old counterparts. Interestingly, this general situation had changed somewhat by 2006. Firstly, the coefficient for 35 to 44 year olds is no longer statistically significant, meaning that this age group was, *ceteris paribus*, no more or less likely to find employment than youth aged between 15 and 24. Furthermore, the

coefficients of the two older age brackets declined significantly over the period. In 2006, 45 to 44 year olds in Mpumalanga were only 19 % more likely than 15 to 24 year olds to be employed (down from 32 %). This seems to suggest that the age bias in the labour market may have declined over the period, putting youth at less of a disadvantage relative to their older counterparts. Interestingly, the coefficient for 55 to 65 year olds is positive and significant in both 2001 and 2006, indicating that these individuals were more likely than 15 to 24 year-olds to secure employment in Mpumalanga.

Examining the race results for Mpumalanga, the coefficients for Coloureds and Africans are significantly positive in both years, indicating that in both periods these population groups were less likely than Whites to be employed, *ceteris paribus*. Moreover, it seems that from 2001 to 2006 the gap between Whites and other race groups widened, with the African and Coloured coefficients higher than in 2001. In 2001 Africans were 32 % less likely to be employed than Whites, and Coloureds 39 % less likely. In 2006, Africans had a 36 % lower probability of being employed than Whites, and Coloureds 63%. Females were also less likely to be employed than males in both years, and as with race, it appears that the gender effect in Mpumalanga may be becoming stronger over the 5-year period as evidenced by the increase in the size of the coefficient for females from -0.1485 to -0.2487.

A surprising result is the results for the education splines in the equations for Mpumalanga, which are all statistically significant in both years, with the exception of a Diploma/Certificate in 2001 and 2006, and Grades 9 to 11 in 2001. This appears to point towards the lack of returns to education in the Mpumalanga labour market, unless an individual has a tertiary education. Moreover, there was a substantial increase in the size of the Diploma coefficient from 0.2206 in 2001 to 0.2720 in 2006. This suggests that the value of tertiary education in helping individuals find employment strengthened over the period. In contrast, the education splines for South Africa are all significant, barring Degree and Grades 9 to11. An education below Grade 8 is associated with a significantly lower likelihood of finding employment, while Matric certificates or Diplomas increased the likelihood of being employed in South Africa in 2006. A surprising result is the insignificance of the Degree coefficient for Mpumalanga, but this may be a representation of the small sample size for this cohort (2.6% of the sample). The coefficient for Diploma in the South Africa equation is lower than that for Mpumalanga in 2006, indicating that a tertiary education in the Mpumalanga province has larger returns in the labour market than in the rest of the country. These results are evidence, within a multivariate context, of Skill-biased Technical Change in Mpumalanga and the rest of South Africa. Hence, the skills intensity of employment persists.

The labour market in Mpumalanga 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 and race appear to be playing more of a role in the employment equation in 2006 compared to 2001.The current skills shortage manifested in South Africa as a whole is also detected in the province 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 (Oosthuizen, 2006).

Another important labour market outcome which will now be addressed is earnings. Table 19 below estimates earnings equations for Mpumalanga for 2001 and 2006. Earnings are measured by the log of the total monthly wage earned by the employed. The determinants of earnings in the province are examined relative to those for the rest of the country for 2006.

Table 17: Earnings Equation for Mpumalanga, 2001 and 2006

	Coefficients		
	Mpumalanga 2001	***Mpumalanga 2006***	***South Africa 2006***
Female	-0.4413*	-0.3759*	-0.1752*
African	-0.7801*	-0.8838*	-0.5875*
Coloured	-0.1308	-1.0719	-0.3676*
Asian	-0.0251		-0.2171*
No education to grade 8	0.0429*	0.0317*	0.0374*
Grade 9-11	0.0905*	0.0885*	0.0539*
Grade 12	0.2230*	0.2320*	0.2056*
Diploma	0.2769*	0.4292*	0.2848*
Degree	-0.0129	0.1548*	0.1527*
Eastern Cape	…	…	-0.3170*
Northern Cape	…	…	-0.2381*
Free State	…	…	-0.2983*
KwaZulu Natal	…	…	-0.1931*
North-West	…	…	-0.1285*
Western Cape	…	…	-0.0269
Mpumalanga	…	…	-0.1834*
Limpopo	…	…	-0.2790*
Managers	0.8464*	0.9519*	0.9815*
Professionals	0.4421*	0.4248*	0.4973*
Clerks	0.3202*	0.3707*	0.4025*
Service & sales workers	0.1513**	0.1861*	0.1158*
Skilled agricultural workers	0.3703**	0.2388*	0.1872*
Craft & trade workers	0.0928	0.1942*	0.1968*
Operators & assemblers	0.3181*	0.3502*	0.2231*
Domestic workers	0.8475*	0.2571	0.2233
Unspecified	0.0871	(dropped)	1.3693*
Mining	0.0020	0.3816*	0.3834*
Agriculture	-0.6442*	-0.2712	-0.2757*
Utilities	-0.0461	0.3573*	0.2600*
Construction	-0.1458	-0.0107	-0.0817*
Trade	-0.3815*	-0.3878*	-0.3018*
Transport	-0.1804	-0.0063	0.0634**
Finance	-0.1019	-0.1397	-0.0293
Community Services	0.0673	0.0750	0.0288
Private Households	-1.1499*	-0.2801*	-0.4764*
Other	-1.2431	0.2983	-0.0089
Age	0.0805*	0.0117*	0.0007*
Age squared	-0.0009*	0.0000*	0.4267*
Union members	0.4636*	0.4925*	0.3395*
Log of hours per month	0.2715*	0.3262*	-0.5958*
Lambda	-0.2801	-0.0754	-0.3170*
Constant	4.3163*	5.4933*	6.0261*
Number observed	2002	1976	24041
F	105.56*	93.88*	929.72*
Adjusted R^2	0.6329*	0.5931*	0.6071*

Source: LFS 2001:2 and LFS 2006:2 (Statistics South Africa)
Notes: * Significant at the 1% level

** Significant at the 5 % level.

The lambda derived when estimating the employment probit was included in the earnings equation. bias, which was corrected for through the inclusion of lambda in the estimation of the earnings equation. The lambda for the Mpumalanga equations is statistically insignificant in both years, indicating that no sample selection bias was present for the Mpumalanga sample.

The results from the earnings equations again confirm that in Mpumalanga, as experienced in the rest of South Africa, Africans earn less than Whites and females earn less than males. Moreover, the gap in earnings by race in Mpuamalnga widened from 2001 to 2006. In 2001 Africans earned 78% less than Whites in Mpumalanga, and by 2006 this difference had increased to 88%.

The positive returns to education are also again evident from the positive and significant coefficients for all education splines, representing the positive impact of additional years of education on earnings in Mpumalanga in 2001 as well as in 2006.The only insignificant result was the Degree variable for the Mpumalanga earnings equation in 2001, but as previously noted, this may be a function of the small size of this cohort in the sample. For Mpumalanga, a greater positive impact on earnings is associated with Matric or tertiary education in 2001, while the effect associated with these levels of education (particularly tertiary education) becoming stronger in 2006. Specifically, the earnings premium to those with a Diploma increased from 28% in 2001 to 43% in 2006, while the previously insignificant coefficient for the Degree variable became significant and increased to 15% in 2006.

The coefficients for the provinces in the earnings equation for South Africa indicate that the employed in Mpumalanga earned 18% less than their counterparts living in Gauteng in 2006.

An important result is the huge premium to union members in Mpumalanga (46 and 49% in 2001 an 2006 respectively) relative to the rest of the country (34% in 2006).

6. Policy Considerations

There can be no doubt, based on the above evidence, that employment shifts within Mpumalanga have characterised by at least two key trends: Firstly the rapid growth in informal sector, self-employment on the one hand and secondly, a stagnant formal sector. In particular the latter is manifest in the inability of the province to convert, through large established enterprises, output into employment growth. Ultimately though, one of the consequences of an economy with these attributes, has been to engender a disjuncture between the formal and the informal economy – or in the South African parlance – between the first and the second economies of the province.

It is this disjuncture, we would argue, which requires urgent redress and policy focus. Ultimately it is incumbent upon the provincial government in consultation with national government, where appropriate, to set out a framework and detailed menu of possible policy interventions designed to kick-start the growth and development of the second economy in the province. Whilst this intervention deserves detailed attention and focus, as separate from this paper, we would propose here that two key initial micro policy actions should form part of any policy to grow and expand the informal economy within Mpumalanga. These two interventions fall within the arena of state procurement policies on the one hand, and the need for a better credit and insurance coverage to informal operators.

On the first of these, current state procurement policies are not easily amenable to either informal operators or indeed even more formalised small and medium enterprises. The procedures, qualifications requirements and documentation within each state tender process for goods and services implicitly act as a barrier to entry for informal sector firms. Ultimately, the state procurement environment at both a national provincial level serve to promote those better established, larger more formal firms. In doing so, the inadvertent consequence is to close off one possible policy avenue for encouraging the growth and development of this sector. Indeed, it is a recommendation here that a more detailed analysis and understanding of the specific legislative and procedural fixes which may be required in order that access to state tenders is freed up, as it were, to small business and the informal sector.

Outside of government's mandate, but equally important is the need to explore ways and means in which financial intermediaries in the economy – many of whom are of course well established and large operators – can be drawn into insuring and providing credit to small informal operators. In many cases, the informal operator's primary business risk is the lack of insurance or credit. Whilst the latter has arguably been dealt with in some detail through agreements and institutions at the national, these do require further input and effort at the provincial level. In addition though, the notion of insuring and protecting the livelihoods of small informal operators has not by any means attracted any policy attention or indeed policy action. Again, whilst this may be a national government competence or debate, there is no reason for provincial authorities not to engage with these issues from their particular vantage point.

Skills Development and Human Capital Formation

There are a range of important interventions required and necessary for the promotion of skills and human capital formation within the South African economy. We provide below a brief overview of some of these key policy options, and the ongoing debates around them. In most cases, what follows is a reflection of national concerns, which are almost always equally applicable at the national level.

Restructuring and Rethinking Further, Education and training Colleges

A number of possible policy options regarding FET colleges present themselves. Hopefully these, together with the FET recapitalisation project, will be beneficial to standards and quality of training and education at FET colleges. This process should be monitored closely to ensure an optimal outcome. Some specific policy issues include:

- The move towards 'whole education' is driven by the need to ensure inclusion in the knowledge society, but it is also crucial that industry standards are met as far as firms' expectations of practical knowledge and experience is concerned. This requires a process of quality control as well as regular consultation with industry about the curricula at FET colleges.

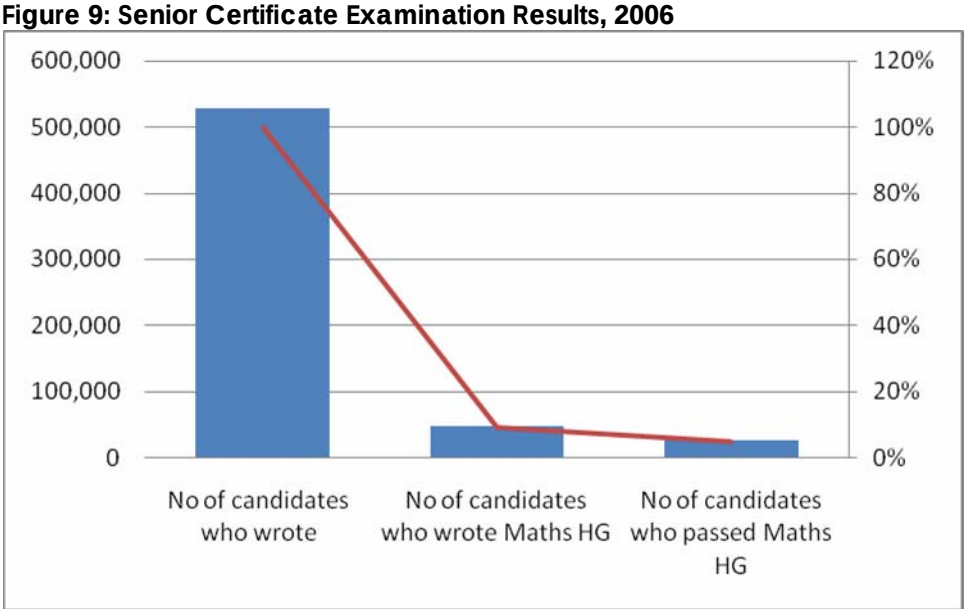
- Support from industry is crucial. Many firms have applied for accreditation as training providers and opt to conduct learnerships and apprenticeships themselves rather than outsourcing this to FET colleges or other academic institutions. This is a reflection of the distrust of the private sector in public training at present, which poses a threat to the credibility and future of the FET system.

- Perhaps a 'soft' recommendation, but one we feel that is vital, revolves around the fact that FET colleges are viewed within the African community as a second-best option for post-matric training. Hence, a key policy intervention would involve marketing FETs in African communities, and in particular repositioning them within these communities as institutions offering valuable and highly marketable skills. The severe shortage of artisans reported consistently by manufacturing firms, reinforces the need for this intervention. Corporate financial and logistical support could be considered for such a marketing campaign.

Increasing the Production of Skills: The Case of Engineering

One of the commonly recognized obstacles to increasing graduate output of engineers is the limited pool of suitably qualified matric maths and science students which impacts on the low enrolment of school-leavers into engineering programmes. For instance, data from the Department of Education for the 2006 Senior Certificate Examination results shows that the percentage of candidates who write Maths on the Higher Grade (HG) is low at under 10%, and further that the percentage of candidates who pass Maths HG is even lower at 5%. This is notwithstanding the fact that both Maths and Physical Science are generally pre-requisites for engineering courses and further that both of these subjects have to be passed with some minimum symbol on the HG.

Figure 9: Senior Certificate Examination Results, 2006

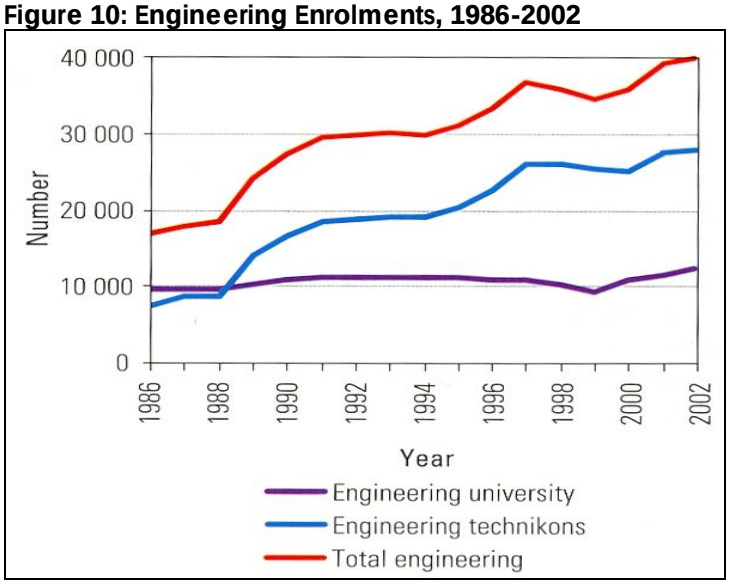


Source: Department of Education website: www.education.gov.za

Clearly, this is problematic in the context of a rising demand for engineers. In trying to increase the pool of suitably qualified maths and science school-leavers, some learning institutions have designed specialized training programmes for matric students from disadvantaged backgrounds. These programmes typically try to address maths, science, and language deficiencies and in addition, expose students to professions through visits and lectures. While these interventions are much-needed, it is not necessarily clear that the pool of suitably qualified students will increase substantially in the short-term.

The issue of a limited pool is further exacerbated by the fact that engineering schools compete with other schools, including other sciences and commerce. In other words, only a proportion of suitably qualified school leavers opt to study an engineering course. The figure below shows historical enrolments into engineering at universities and technikons. It is clear from the figure that engineering enrolments have been increasing over the period, but that the increase in enrolment has been driven by technikon enrolments, while enrolment into university engineering programmes has been fairly stable.

Figure 10: Engineering Enrolments, 1986-2002



Source: Lawless (2005)

While it may be useful to conduct marketing campaigns in order to attract students into engineering schools at universities, these enrolments could be at the expense of other science enrolments, and this cost would have to be taken into account. It has also been suggested that dropping the entry requirements may help to increase enrolment. However, the impact of this on completion of programmes must be carefully considered since experience indicates that students not meeting the standard entry requirements have a much-reduced probability of succeeding.

A possible alternative to increasing both enrolment numbers and graduation rates is to focus differently on selection criteria for enrolment. The assumption here is that current matric results, including maths and science grades, are not necessarily a good indicator for successful graduation in engineering and built environment courses. To this end, it has been found that some institutions have had improvements in results by taking into account aptitude and motivation for the course when selecting students. Thus, applying selection criteria differently may also help to improve on graduation rates – this is particularly relevant for at Universities of Technology which currently experience throughput rates of between 5 and 15%.

Finally, clearly there is some tension between equity goals and maximising graduate output since increasing the enrolment of the lowest performing group rather than the highest performing group will have different results in terms of increasing the number of graduates. An output-based approach is useful in this context, since it allows one to model different scenarios.

Importing of Skilled Labour

In the short-term South Africa still faces a serious shortage of highly specialized skills at both the skilled and semi-skilled level. In the case of specialized artisans for example, it has been found that similar equivalents in South Africa lack the experience to complete highly specialized tasks, and their error level may be up to eight times higher than international counterparts, which necessitates importing of these skills.

Where these skills are in demand, there are a number of visa mechanisms that allow for importing of skilled personnel. However, there are several issues around granting of visas which has resulted in scarce skills often being lost to other international projects. The challenges faced by companies in

importing specialized skills are numerous, ranging from inconsistent and unclear application of work permit rules by government offices and bureaucratic delays, to disincentives to work in South Africa and general hostility to the use of foreign workers. These are discussed below.

There appears to be confusion regarding the appropriate procedures to be followed when applying for visas. Many firms indicated that Home Affairs offices seem to use different regulations for visa applications, and at times these regulations are applied in an ad-hoc manner. Firms also indicated that there are time delays as far as processing of applications are concerned. It may therefore be useful to identify appropriate visa mechanisms for large-scale infrastructure projects, and then to train both Home Affairs officials as well as private sector applicants in implementing these processes. Processing applications timeously is of importance, given that it is thought that there is often only a 45-90 day window of opportunity for recruiting of specialist skills. If the process takes much longer, these skills are lost resulting in firms having to settle for less specialized skills or struggling to fill vacancies.

As far as applying for permits is concerned, corporate permits are preferred on large scale projects, but bottlenecks within the Department of Trade and Industry as well as Department of Labour makes firms reluctant to use these permits. Consultation with these departments to address bottlenecks around granting of corporate work permits would help ease the problem.

The delays referred to above are further exacerbated by the time taken by the South African Qualifications Authority (SAQA) to approve qualifications of skills to be imported. To overcome this problem SAQA has employed people to lessen the delays and in addition allowed qualifications to be validated retro-actively. It has been suggested that the work permit process should be re-engineered to enable many of the approvals, including skills verifications, to apply retro-actively, but the major client would have to take full responsibility if the regulations are violated.

Procedural delays are further exacerbated by the fact that the current scarce and critical skills list does not provide sufficient detail on the skills required for major capital projects, and in addition, salaries paid for importing skills need to be justified. Delays with regard to these procedures can be dealt with by enlisting the help of major project owners in drawing up a skills register based on actual projects. Once the skills register is compiled, the salaries of critical skills categories can be benchmarked.

The issue of granting visas is also problematic as far as lump-sum turnkey projects are concerned. The main components of most major capital projects rely on lumpsum turnkey contracts, and these contracts typically specify the proportion of local labour to be used. However, some contractors seek to bring their skills and labour with them from overseas and they often struggle with visa approvals for imported labour, while at the same time causing tension with excluded local communities. It has been suggested that in order to overcome this problem, there should be transparency and sharing of information upfront so that contractors are aware of what proportion of local labour they are expected to train and use, and this information can be shared with authorities responsible for granting of visas.

In addition to procedural delays and the problems associated with granting of visas, firms also indicated that there were several other disincentives to working in South Africa, with the two biggest disincentives cited being tax disincentives and treatment of spouses. Recent tax legislation in South Africa, in simplified terms, states that permanent residents are liable for taxation on worldwide income and capital gains if they are resident for more than 183 days in a year. However, even if a foreign worker is not going to be a permanent resident, they are liable for taxation on their worldwide income from the first day of arrival, but can reclaim the tax paid on their income if they are not here

for the stipulated period. This process is associated with a large amount of red tape and inconvenience, and could be dealt with by consultation with SARS/National Treasury to discuss the option of a fixed final withholding tax payable by the employer.

On the issue of spouses, current visa regulations prohibit the spouses of skilled personnel from working in South Africa. Instead they are expected to apply for a general work permit with its associated paperwork, and may still be refused due to quota restrictions. Consultation with Home Affairs to make it possible for spouses of imported skills to work in South African may require further consideration. In general, the importance of efficient and effective legislation and procedures which are understood by all parties involved cannot be overemphasized, particularly in light of the fact that South Africa competes for these skills in the global arena.

7. Key Conclusions

The first key conclusion from this analysis is that while no jobless growth is evident for Mpumalanga, the low GDP-employment elasticity for formal, non-agricultural employment is a key concern. Furthermore, the skills-biased technical change in employment experienced by South Africa also holds true in the Mpumalanga province, yielding increasing barriers to entry into long-term employment. This has engendered a labour market in Mpumalanga that is characterised by formal insider jobs to the experienced and skilled, social security support for the unemployed (which intensified from 2001 to 2006), and heavy dependence on remittances to poor households in Mpumalanga from migrants workers in Gauteng. These three factors – growth in employment through the informal sector, a rapid rise in social security beneficiaries and the dependence on remittances from other provinces – whilst serving as a useful diagnostic tool may also provide the elements for optimal and effective policy interventions within the province.

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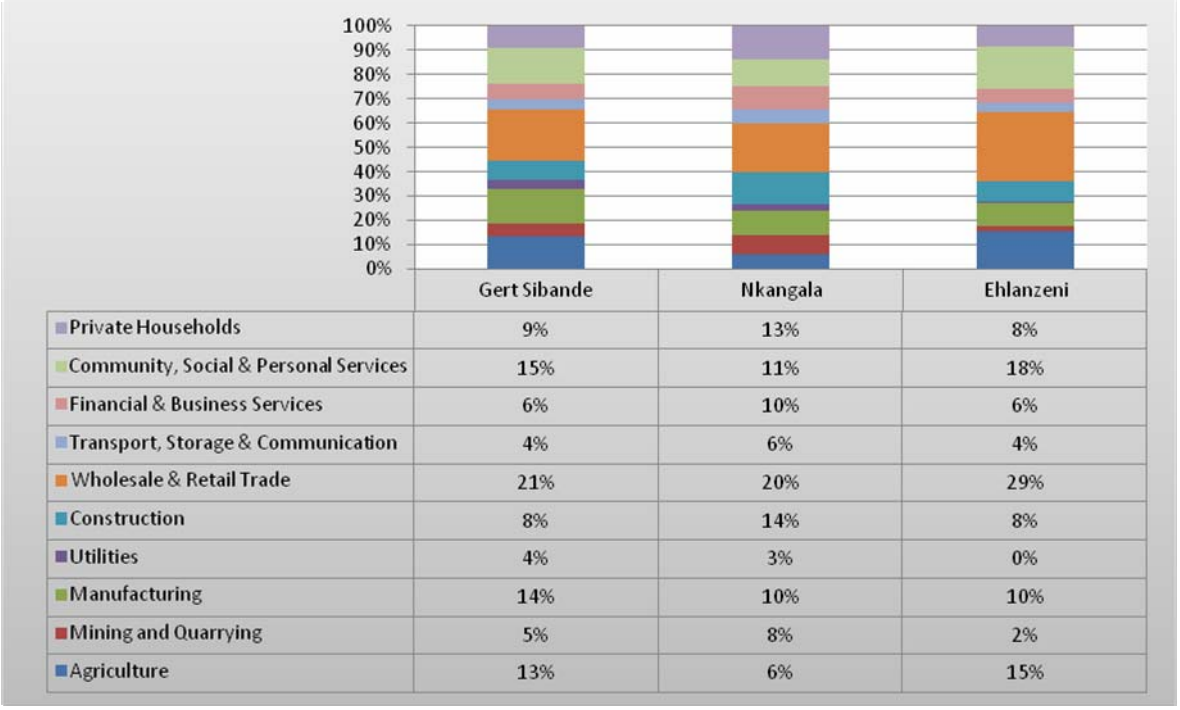
Appendix

Sectoral employment by district council, Mpumalanga, 2006



	Gert Sibande	Nkangala	Ehlanzeni
Private Households	9%	13%	8%
Community, Social & Personal Services	15%	11%	18%
Financial & Business Services	6%	10%	6%
Transport, Storage & Communication	4%	6%	4%
Wholesale & Retail Trade	21%	20%	29%
Construction	8%	14%	8%
Utilities	4%	3%	0%
Manufacturing	14%	10%	10%
Mining and Quarrying	5%	8%	2%
Agriculture	13%	6%	15%

Share of total employment growth by sector in Mpumalanga, 2001-2006

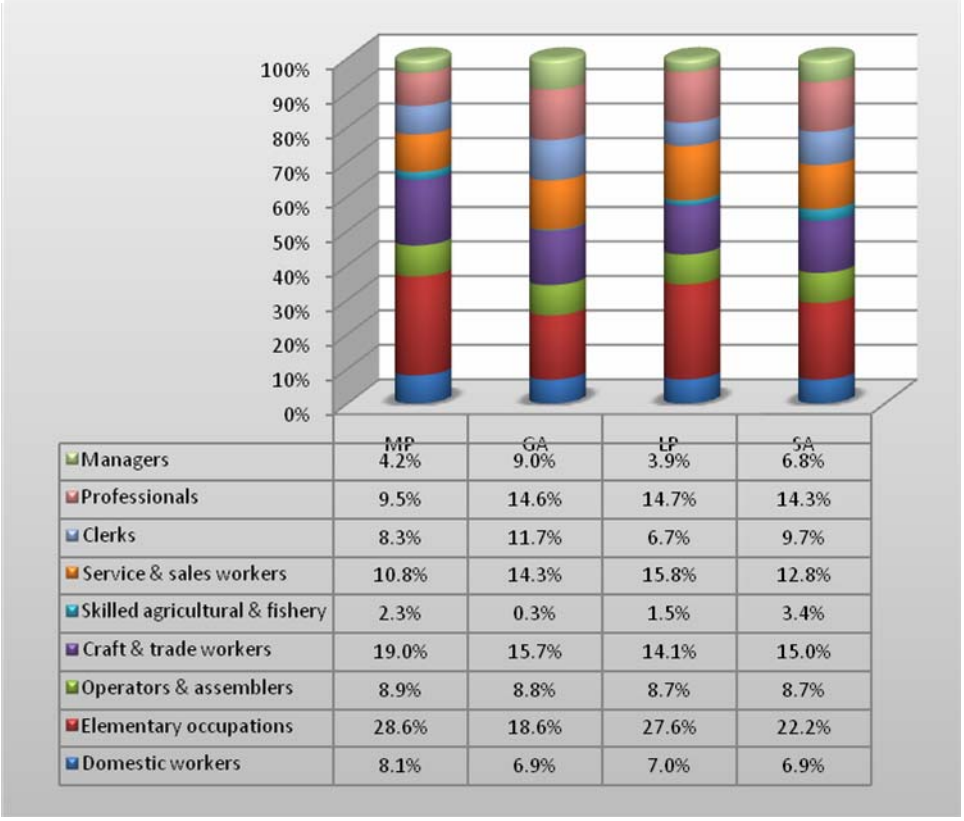
	2001		2006		Share of	Growth rates
	No.	share	No.	share	change	(annual %)
Primary	**134,688**	***18.8%***	**128,198**	*14.2%*	**-3.5%**	**-1.0%**
Agriculture	59,982	*8.4%*	84,323	*9.4%*	13.3%	7.0%
Mining and Quarrying	74,706	*10.4%*	43,874	*4.9%*	-16.8%	-10.1%
Secondary	**108,434**	***15.1%***	**149,596**	*16.6%*	**22.4%**	**6.6%**
Manufacturing	66,247	*9.2%*	79,679	*8.8%*	**7.3%**	3.8%
Utilities	16,601	*2.3%*	17,182	*1.9%*	**0.3%**	0.7%
Construction	25,586	*3.6%*	52,736	*5.9%*	**14.8%**	15.6%
Tertiary	**241,074**	***33.6%***	**335,850**	*37.3%*	**51.6%**	**6.9%**
Wholesale and Retail Trade	95,536	*13.3%*	116,348	*12.9%*	11.3%	4.0%
Transport	17,953	*2.5%*	32,818	*3.6%*	8.1%	12.8%
Financial	37,636	*5.3%*	59,720	*6.6%*	12.0%	9.7%
CSP public sector	61,653	*8.6%*	94,222	*10.5%*	17.7%	8.9%
CSP non public sector	24,214	*3.4%*	26,109	*2.9%*	1.0%	1.5%
Private Households	4,082	*0.6%*	6,633	*0.7%*	1.4%	10.2%
Total formal	**484,196**	***67.6%***	**613,644**	***68.2%***	**70.5%**	**4.9%**
Informal	**232,500**	***32.4%***	**286,703**	***31.8%***	**29.5%**	**4.3%**
Total	**716,697**	***100.0%***	**900,347**	***100.0%***	**100.0%**	**4.7%**

Source: Labour Force Survey, September 2001- 2006 (Statistics South Africa).
Notes: CSP is Community, Social and Personal Services

Share of total employment growth by occupation in Mpumalanga, 2001-2006

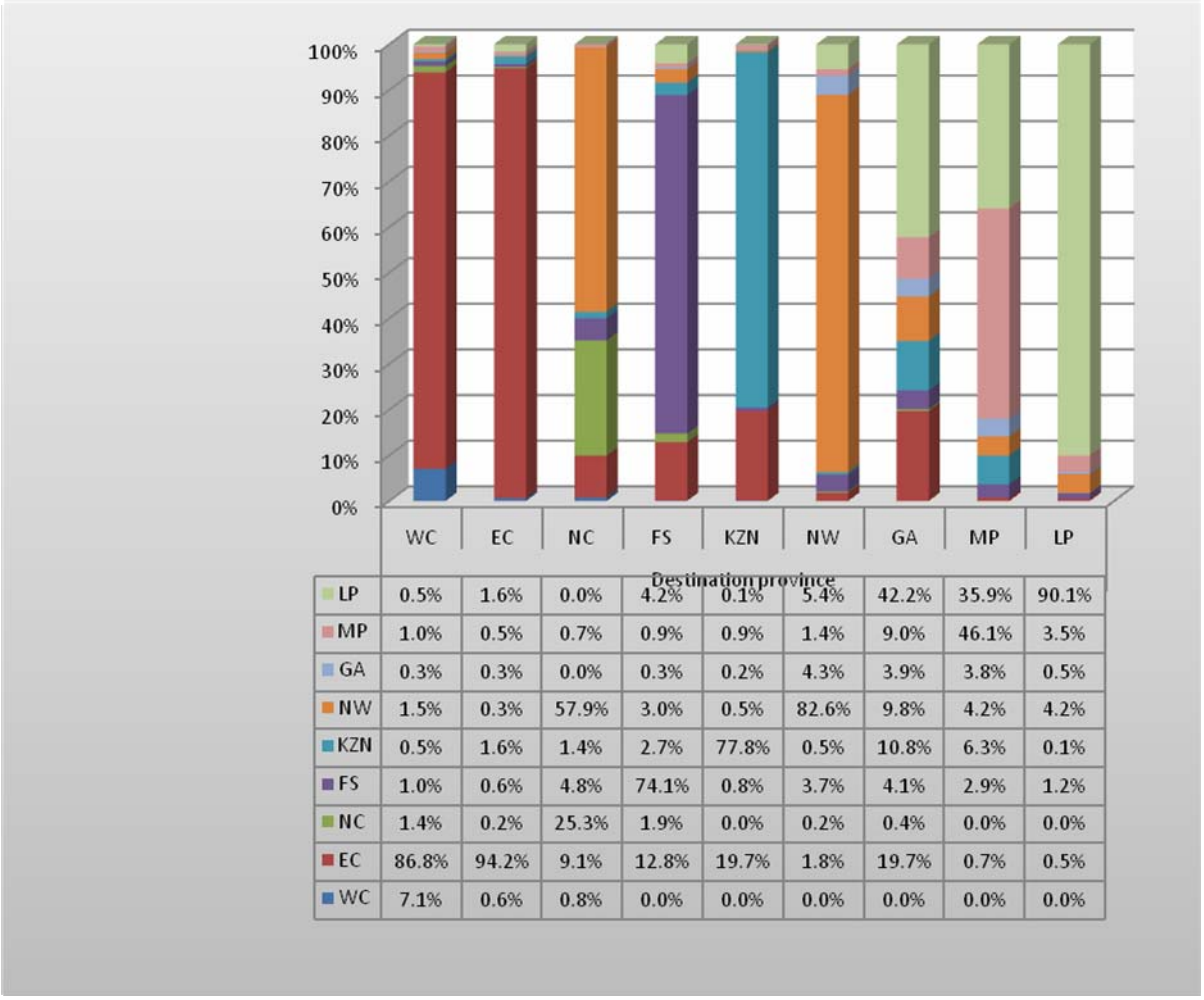
Occupation	2001		2006		Share of change	Growth rate (annual)
	000s	share	000s	share		
Managers	22,762	*3.1%*	37,828	4.2%	8.4%	10.7%
Professionals	70,185	*9.7%*	86,047	9.5%	8.9%	4.2%
Clerks	65,490	*9.0%*	75,240	8.3%	5.4%	2.8%
Service & sales workers	87,743	*12.1%*	97,511	10.8%	5.5%	2.1%
Skilled agricultural & fishery workers	30,393	*4.2%*	21,137	2.3%	-5.2%	-7.0%
Craft & trade workers	118,900	*16.4%*	171,846	19.0%	29.6%	7.6%
Operators & assemblers	97,800	*13.5%*	81,038	8.9%	-9.4%	-3.7%
Elementary occupations	178,053	*24.5%*	259,399	28.6%	45.4%	7.8%
Domestic workers	54,625	*7.5%*	73,791	8.1%	10.7%	6.2%
Total	726,888	*100.0 %*	905,911	100.0%	100.0%	4.5%

Share of total employment by occupation, regional breakdown 2006



	MP	GA	LP	SA
Managers	4.2%	9.0%	3.9%	6.8%
Professionals	9.5%	14.6%	14.7%	14.3%
Clerks	8.3%	11.7%	6.7%	9.7%
Service & sales workers	10.8%	14.3%	15.8%	12.8%
Skilled agricultural & fishery	2.3%	0.3%	1.5%	3.4%
Craft & trade workers	19.0%	15.7%	14.1%	15.0%
Operators & assemblers	8.9%	8.8%	8.7%	8.7%
Elementary occupations	28.6%	18.6%	27.6%	22.2%
Domestic workers	8.1%	6.9%	7.0%	6.9%

Origin of migrants by province, 2005



	WC	EC	NC	FS	KZN	NW	GA	MP	LP
LP	0.5%	1.6%	0.0%	4.2%	0.1%	5.4%	42.2%	35.9%	90.1%
MP	1.0%	0.5%	0.7%	0.9%	0.9%	1.4%	9.0%	46.1%	3.5%
GA	0.3%	0.3%	0.0%	0.3%	0.2%	4.3%	3.9%	3.8%	0.5%
NW	1.5%	0.3%	57.9%	3.0%	0.5%	82.6%	9.8%	4.2%	4.2%
KZN	0.5%	1.6%	1.4%	2.7%	77.8%	0.5%	10.8%	6.3%	0.1%
FS	1.0%	0.6%	4.8%	74.1%	0.8%	3.7%	4.1%	2.9%	1.2%
NC	1.4%	0.2%	25.3%	1.9%	0.0%	0.2%	0.4%	0.0%	0.0%
EC	86.8%	94.2%	9.1%	12.8%	19.7%	1.8%	19.7%	0.7%	0.5%
WC	7.1%	0.6%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Origin and Destination Provinces of Migrant Workers in South Africa

		Origin Province									Total
		WC	**EC**	**NC**	**FS**	**KZN**	**NW**	**GA**	**MP**	**LP**	
Destination Province	**WC**	77.9%	27.9%	15.5%	2.0%	0.2%	1.2%	1.0%	1.2%	0.2%	**8.7%**
	EC	5.2%	25.2%	2.2%	1.1%	0.6%	0.2%	0.9%	0.5%	0.4%	**7.3%**
	NC	1.5%	0.5%	50.3%	1.8%	0.1%	8.2%	0.0%	0.1%	0.0%	**1.6%**
	FS	0.1%	1.0%	5.3%	38.3%	0.3%	0.6%	0.3%	0.3%	0.4%	**2.2%**
	KZN	0.8%	13.3%	0.3%	3.3%	71.7%	0.8%	1.6%	2.3%	0.1%	**18.4%**
	NW	0.0%	0.4%	1.8%	5.4%	0.2%	46.6%	10.3%	1.2%	1.3%	**6.2%**
	GA	0.1%	30.4%	22.7%	40.9%	22.8%	37.0%	63.8%	51.6%	67.6%	**41.9%**
	MP	0.0%	0.2%	0.0%	4.2%	1.9%	2.3%	9.0%	38.1%	8.3%	**6.1%**
	LP	0.0%	0.1%	0.0%	1.6%	0.0%	2.3%	1.3%	2.8%	20.6%	**6.0%**
	Foreign	13.6%	0.1%	0.3%	1.3%	1.1%	0.7%	6.0%	1.0%	0.6%	**0.9%**
Total		**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Share of pop.		**0.5%**	**11.5%**	**2.6%**	**4.3%**	**6.2%**	**8.6%**	**0.0%**	**6.8%**	**13.9%**	**6.4%**

Source: LFS 2005:2 (Statistics, South Africa)
Note: Shaded areas indicate regional migration within the province.