Background Paper Series

PROVIDE PROJECT
The Provincial Decision-making Enabling Project

Background Paper 2005:1(1)

A profile of the Western Cape province: Demographics, poverty, inequality and unemployment

Elsenburg
August 2005

PROVIDE PROJECT

The Provincial Decision-making Enabling Project

Overview

The Provincial Decision-Making Enabling (PROVIDE) Project aims to facilitate policy design by supplying policymakers with provincial and national level quantitative policy information. The project entails the development of a series of databases (in the format of Social Accounting Matrices) for use in Computable General Equilibrium models.

The National and Provincial Departments of Agriculture are the stakeholders and funders of the PROVIDE Project. The research team is located at Elsenburg in the Western Cape.

PROVIDE Research Team

Project Leader:	Cecilia Punt
Senior Researchers:	Kalie Pauw
	Melt van Schoor
Young Professional:	Bonani Nyhodo
Technical Expert:	Scott McDonald
Associate Researchers:	Lindsay Chant
	Christine Valente

PROVIDE Contact Details

✉ Private Bag X1
Elsenburg, 7607
South Africa

✉ provide@elsenburg.com
☎ +27-21-8085191
🖷 +27-21-8085210

For the original project proposal and a more detailed description of the project, please visit www.elsenburg.com/provide

A profile of the Western Cape province: Demographics, poverty, inequality and unemployment [1]

Abstract

This paper forms part of a series of papers that present profiles of South Africa's provinces, with a specific focus on key demographic statistics, poverty and inequality estimates, and estimates of unemployment. In this volume comparative statistics are presented for agricultural and non-agricultural households, as well as households from different racial groups, locations (metropolitan, urban and rural areas) and district municipalities of the Western Cape. Most of the data presented are drawn from the Income and Expenditure Survey of 2000 and the Labour Force Survey of September 2000, while some comparative populations statistics are extracted from the National Census of 2001 (Statistics South Africa). The papers should be regarded as general guidelines to (agricultural) policymakers as to the current socio-economic situation in the Western Cape, particularly with regards to poverty, inequality and unemployment.

---

[1] The main author of this paper is Kalie Pauw.

Table of Contents

List of Figures

List of Tables

1.   Introduction

According to the National Census of 2001 the Western Cape province is home to about 10.1% of South Africa's population. Measured by its total current income, the Western Cape is the second richest province in South Africa after Gauteng. In *per capita* income terms the province also ranks second after Gauteng (SSA, 2003a).[2] Despite these relative fortunes, the province is still marred by high poverty rates, inequalities in the distribution of income between various population subgroups, and unemployment, although not to the same degree as other regions in South Africa. Poverty and unemployment in South Africa are often rural phenomena, and given that many of the rural inhabitants are linked to agricultural activities, the various Departments of Agriculture in South Africa have an important role to play in addressing the needs in rural areas. In this paper an overview of the demographics, poverty, inequality and unemployment in the Western Cape is presented. A strong focus on agriculture and agricultural households is maintained throughout.

There are various sources of demographic data available in South Africa. In addition to the National Census of 2001 (SSA, 2003a), Statistics South Africa conducts a variety of regular surveys. Most suited to this type of study and fairly recent is the Income and Expenditure Survey of 2000 (IES 2000) (SSA, 2002a), which is a source of detailed income and expenditure statistics of households and household members. The twice-yearly Labour Force Survey (LFS) is an important source of employment and labour income data. In this paper we use the LFS September 2000 (LFS 2000:2) (SSA, 2002b) as this survey can be merged with the IES 2000. Although there are some concerns about the reliability of the IES and LFS datasets, whether merged or used separately, as well as the comparability of these with other datasets, one should attempt to work with it as it remains the most recent comprehensive source of household income, employment and expenditure information in South Africa. For a detailed description of the data, as well as data problems and data adjustments made to the version of the dataset used in this paper, refer to PROVIDE (2005a).

This paper is organised as follows. Section 2 presents a brief overview of the spatial distribution of households within the province, while also presenting some estimates of the number of people or households involved in agricultural activities. Section 3 focuses on poverty, inequality and unemployment in the province, while section 4 draws some general conclusions.

---

[2] These population figures and income estimates are based on the Census 2001. Statistics South Africa warns that the question simply asked about individual income without probing about informal income, income from profits, income in kind etc. As a result they believe this figure may be a misrepresentation of the true income. Comparative figures from the IES 2000 ranks the Western Cape third (after Gauteng and KwaZulu-Natal) in terms of total provincial income, and also second as measured by *per capita* income.

2. Demographics

2.1. Spatial distribution of households

In 2000 the Western Cape was home to 1.05 million households and a total of 3.99 million people (IES/LFS 2000). These estimates are significantly lower than the Census 2001 estimates of 1.17 million households (4.52 million people, see Table 1). The discrepancy is partly explained by the population growth experienced between 2000 and 2001, but also points to the outdated IES/LFS 2000 sampling weights.[3] Compared to the Census 2001 data Coloured people were over-represented while the other population groups were under-represented in the IES/LFS 2000.

Table 1: Racial composition of the Western Cape

|	*IES/LFS 2000*	*Population share*	*Census 2001*	*Population share*
African	890,272	22.3%	1,207,429	26.7%
Coloured	2,349,596	58.9%	2,438,976	53.9%
Asian/Indian	24,525	0.6%	45,028	1.0%
White	723,280	18.1%	832,902	18.4%
Total	3,987,673	100.0%	4,524,335	100.0%

Sources: IES/LFS 2000 and Census 2001.

The Western Cape is divided into five district municipalities (see Figure 1). These district municipalities were recently demarcated as directed by the Local Government Municipal Structures Act (1998). The City of Cape Town is classified as a metropolitan municipality, the only in the Western Cape with this status.[4] The five other district municipalities are the West Coast, Boland, Central Karoo, Eden and Overberg.[5]

---

[3] The IES 2000 sampling weights were based on 1996 population estimates.

[4] Officially the Demarcation Board declared Pretoria (Tshwane), Johannesburg, East Rand (Ekurhuleni), Durban (eThekwini), Cape Town and Port Elizabeth (Nelson Mandela) as metropolitan areas. However, in our definition of metropolitan areas we include the Vaal (Emfuleni), East London, Pietermaritzburg and Bloemfontein (which includes Botshabelo).

[5] See PROVIDE (2005b) for a more detailed discussion of geographical distinctions between households based on former homelands areas, metropolitan areas, and nodal areas for rural development programmes, all of which can be linked to municipal districts.

Figure 1: District municipalities in the Western Cape
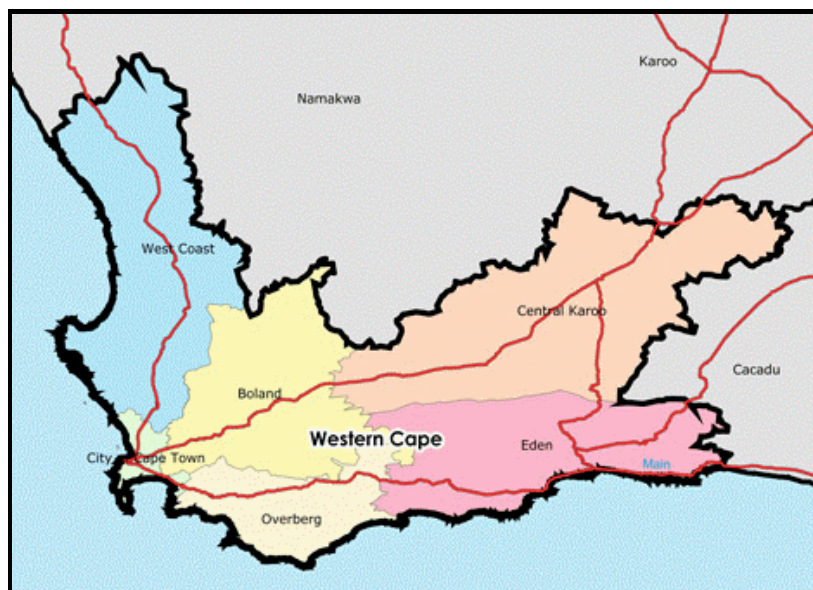
Source: Demarcation Board (www.demarcation.org.za).

Table 2 shows the number of people in each district municipality by racial group. Cape Town is home to 62.2% of the population. The Boland district is the second largest, with 14.2% of the population, followed by Eden and the West Coast with 9.8% and 8.5% respectively. The Overberg and Central Karoo are home to 3.8% and 1.5% of the population respectively. Coloured people make up more than 50% of the population in every district, and 58.9% overall. The majority of all racial groups live in Cape Town (68.9% of Africans, 56.1% of Coloureds, 88.8% of Asian and 72.8% of Whites).

Table 2: Population by district municipality and racial group

	African	*Coloured*	*Asian*	*White*	*Total*	*Percentages*
City of CPT	613,549	1,318,002	21,783	526,654	*2,479,988*	*62.2%*
West Coast	32,014	268,043		40,014	*340,070*	*8.5%*
Boland	138,482	327,877	2,742	97,170	*566,271*	*14.2%*
Central Karoo	1,043	55,752		1,093	*57,888*	*1.5%*
Eden	84,001	287,484		18,621	*390,107*	*9.8%*
Overberg	21,182	92,439		39,728	*153,349*	*3.8%*
Total	*890,271*	*2,349,597*	*24,525*	*723,280*	*3,987,673*	
Percentages	*22.3%*	*58.9%*	*0.6%*	*18.1%*		*100.0%*

Source: IES/LFS 2000

Table 3 shows the number of people in urban and rural areas. Urban areas are divided into metropolitan areas and secondary cities or small towns. The vast majority of the population (89.6%) live in urban areas. This figure is relatively high compared to the national average 63-37 urban-rural split.

Table 3: Population by urban/rural areas and racial group

	African	Coloured	Asian	White	Total	Percentages
Metropolitan areas	613,549	1,318,002	21,783	526,654	2,479,988	62.2%
Secondary/small towns	248,143	684,214	2,742	156,282	1,091,381	27.4%
Rural areas	28,580	347,380		40,344	416,304	10.4%
Total	890,272	2,349,596	24,525	723,280	3,987,673	

Source: IES/LFS 2000

2.2.   Agricultural households

The IES 2000 is one of the only sources of information on home production for home consumption (HPHC) in South Africa, and reports specifically on the productive activities of small, non-commercial subsistence farmers. Respondents were asked to provide estimates of production levels (livestock and produce), as well as the value of goods consumed and sold (see PROVIDE, 2005a for a discussion). This is potentially an important information source to measure the contribution of informal agricultural activities to poor households' income. On the formal side, employment data, which is available in the IES/LFS 2000, can be used to link households to agriculture. Workers reported both the industry in which they were employed as well as their occupation code.

Statistics South Africa has no formal definition of agricultural households, and hence two definitions are used here, namely a broad definition and a strict definition. Both definitions use a combination of HPHC data and agricultural employment data. Under the broad definition any household that earns income from either formal employment in the agricultural industry or as a skilled agricultural worker, or from sales or consumption of home produce or livestock, is defined as an agricultural household.[6] Under the strict definition a household has to earn at least 50% of its household-level income from formal and/or informal agricultural activities. A further way to 'qualify' as an agricultural household is when the value of consumption of own produce and livestock is at least 50% of total annual food expenditure.

Only 28,980 households (2.7%) in the Western Cape are involved in HPHC. The national average is 19.3%. This figure includes 6,294 African households, 14,986 Coloured households and 7,699 White households. In sharp contrast to this about 143,228 households (13.6%) earn some share of their income from wages of household members working in agricultural-related industries. The majority of these households (99,689) are Coloured, while 32,481 are African and 11,058 are White households. Income differences between these households suggest that the White households are typically the owners or managers of farms,

---

[6] Note that consumption of own produce or livestock in economic terms can be regarded as an 'income' in the sense that the household 'buys' the goods from itself. If the household did not consume the goods it could have been sold in the market. This treatment of home-consumed production captures the notion of opportunity cost in economics.

with incomes averaging R149,825. African and Coloured households typically supply farm labour, with average household incomes of R18,180 and R31,289 respectively. When combining households in own production and agricultural employment, a total of 161,374 households (15.3%) in the Western Cape can broadly be defined as agricultural households. Note that some of these households 'qualify' as agricultural households on both own production and employment accounts, which is why the figures do not add up. Under the strict definition 119,180 households (11.3%) are defined as agricultural households (see Table 4).

Table 4: Agricultural households by race (broad and strict definitions)

	Broad definition		Strict definition		
	Agricultural households (column percentages)	*Non-agricultural households (column percentages)*	*Agricultural households (column percentages)*	*Non-agricultural households (column percentages)*	*Total (column percentages)*
African	37,613	216,344	24,666	229,291	253,957
	(23.3%)	*(24.2%)*	*(20.7%)*	*(24.5%)*	*(24.1%)*
Coloured	107,274	443,174	83,980	466,468	550,448
	(66.5%)	*(49.6%)*	*(70.5%)*	*(49.8%)*	*(52.2%)*
Asian		7,730		7,730	7,730
	(0.0%)	*(0.9%)*	*(0.0%)*	*(0.8%)*	*(0.7%)*
White	16,487	226,447	10,534	232,401	242,935
	(10.2%)	*(25.3%)*	*(8.8%)*	*(24.8%)*	*(23.0%)*
Total	161,374	893,696	119,180	935,889	1,055,070
	(100.0%)	*(100.0%)*	*(100.0%)*	*(100.0%)*	*(100.0%)*
Row percentages	15.3%	84.7%	11.3%	88.7%	100.0%

Source: IES/LFS 2000

The average household size of agricultural households in the Western Cape ranges from 3.9 (strict) to 4.1 (broad), which is slightly higher than the provincial average of 3.7 members. This means that the provincial share of people living in agricultural households is actually larger than the share of households defined as agricultural. Table 5 shows that between 478,426 and 674,991 people live in agricultural households, representing 12.0% and 16.9% of the provincial population respectively. About 216,510 people in the Western Cape are classified as agricultural workers, loosely defined here as skilled agriculture workers and/or working in the agricultural industry, either in an informal or formal capacity, and reporting a positive wage or salary for the year 2000. This figure represents 14.0% of the Western Cape's workforce.

Table 5: Agricultural population by race (broad and strict definitions)

	Population living in agricultural households (broad)	Percentages	Population living in agricultural households (strict)	Percentages	Population defined as agricultural workers	Percentages
African	128,947	(19.1%)	75,624	(15.8%)	37,873	(17.5%)
Coloured	496,515	(73.6%)	367,879	(76.9%)	162,565	(75.1%)
Asian	-	(0.0%)	-	(0.0%)	-	(0.0%)
White	49,529	(7.3%)	34,924	(7.3%)	16,072	(7.4%)
Total	674,991	(100.0%)	478,426	(100.0%)	216,510	(100.0%)

Source: IES/LFS 2000.

Figure 2 shows, for each region, the proportion of households that are strictly or broadly defined as agricultural households. In this figure municipal districts are ranked from lowest to highest strict agricultural household share. The figure also provides a racial breakdown of agricultural households (compare Table 4). The majority of agricultural households in all regions are Coloured. The City of Cape Town has very few agricultural households (2.4% – 4.5%). Although most of the Central Karoo district land is utilised as farmland this region has relatively few agricultural households (11.8% under both the strict and broad definitions). This is due to the low labour intensity of farming in the region. The Overberg region has the highest concentration of agricultural households (35.6% – 47.2%).

Figure 2: Agricultural household shares by region and race
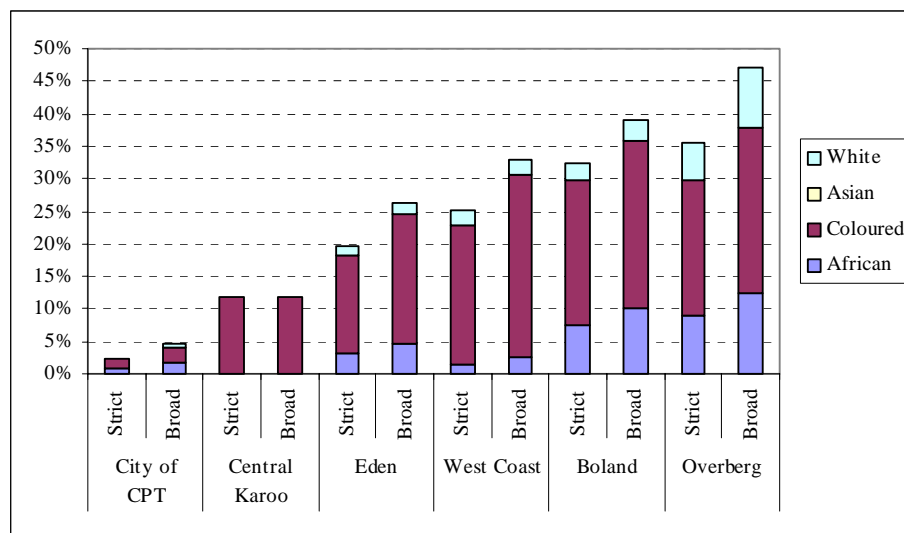
Source: IES/LFS 2000

3.   Poverty, inequality and unemployment

In 2003 the Western Cape contributed approximately 14.5% to the National GDP, although only 10.1% of the South African population live in this province (SSA, 2003a, 2003b).[7] This implies that the *per capita* GDP in the Western Cape is higher than the national average. According to the IES/LFS 2000 estimate the Western Cape *per capita* income was R21,344 in 2000, almost twice as much as the national average of R12,411. Despite the province's relative fortunes, high levels of poverty and inequality persist as they do in the rest of the country.

Table 6 shows the average household incomes (not *per capita*) by various subgroups in the Western Cape. Although some of these averages are based on very few observations, which often lead to large standard errors, the table gives a general idea of how income is distributed between household groups in the province. The average household in the Western Cape earned R75,361 in 2000 (not shown in the table). Agricultural households in general earn less than their non-agricultural counterparts. Note that in all the figures and tables that follow agricultural households are defined according to the strict definition. The average agricultural household reported an income of R35,851 compared to R80,392 for non-agricultural households. African agricultural households are worst off, earning on average only R14,773 per annum compared to R28,108 earned by Coloured households. White agricultural households earned substantially more (R146,935). Note that these figures are household-level income figures that are potentially made up of income earned by multiple household members. As such it is not necessarily a reflection of wages of agricultural and non-agricultural workers.

Table 6: Average household incomes in the Western Cape

	Agricultural households					Non-agricultural households				
	African	Coloured	Asian	White	Total	African	Coloured	Asian	White	Total
City of CPT	11,516	76,524		264,825	63,968	35,378	70,298	110,954	174,911	90,132
West Coast	10,947	21,470		63,346	24,454	23,149	54,892		143,582	63,269
Boland	15,410	22,529		175,026	33,639	40,756	39,581	58,492	133,113	69,583
Central Karoo		13,660			13,660	5,880	32,542		21,920	30,819
Eden	18,834	21,350		102,514	27,348	22,139	36,169		148,393	36,341
Overberg	15,774	23,130		146,404	41,224	19,711	35,762		130,509	71,499
Provincial average	14,773	28,108		146,935	35,851	33,449	60,735	105,708	165,320	80,392
National average	15,014	24,250	132,816	282,151	26,612	29,777	57,284	88,642	166,100	49,990

---

[7] Other provinces' contribution to GDP: Eastern Cape (8.1%), Northern Cape (2.4%), Free State (5.5%), KwaZulu-Natal (16.5%), North West (6.5%), Gauteng (33.0%) and Mpumalanga (7.0%) and Limpopo (6.5%).

3.1.   Poverty and agriculture

Table 6 shows that agricultural households are generally worse off than non-agricultural households in terms of income levels. Agricultural households often reside in rural areas and are far removed from more lucrative employment opportunities in urban areas. As a result the National Department of Agriculture places strong emphasis on rural poverty reduction. Various strategies are proposed in the official policy documentation (see Department of Agriculture, 1998). Central to these strategies are (1) an improvement in rural infrastructure, with the aim of giving rural or resource-poor farmers better access to markets, transport, water and electricity, and (2) employment opportunities within agriculture for the poor. The latter can be interpreted either as the creation of employment opportunities within the commercial farming sector by encouraging commercial farmers to increase employment levels or the creation of new business opportunities for small farmers through a process of land restitution.

Various absolute and relative poverty lines are used in South Africa. In recent years the 40th percentile cut-off point of adult equivalent per capita income has become quite a popular poverty line.[8] This was equal to R5,057 per annum, in 2000 (IES/LFS 2000). This relates to a poverty headcount ratio (defined as the proportion of the population living below the poverty line) for South Africa of 49.8% (IES/LFS 2000).[9] The 20th percentile cut-off of adult equivalent income (R2,717 per annum) is sometimes used as the 'ultra-poverty line'. About 28.2% of the South African population lives below this poverty line.

These same national poverty lines are used for the provincial analysis as this allows for comparisons of poverty across provinces. The Western Cape poverty rate of 20.8% is significantly lower than the national average, while the ultra-poverty rate is 6.0%. Figure 3 compares poverty rates for various population subgroups (race, municipality, location and agricultural/non-agricultural households). The subgroups are ranked from lowest to highest poverty rates for easy comparison. The upper and lower bands on the graph represent the 95% confidence intervals.

The City of Cape Town has the lowest poverty rate (16.7%), followed by the West Coast (19.4%), Overberg (23.5%), Boland (26.7%) and Eden (35.6%). The Central Karoo has the highest poverty rate (41.3%). The wide confidence intervals around the Overberg and Central Karoo districts are due to the limited number of sample observations for these regions. It is clear to see why the Central Karoo region was identified during President Thabo Mbeki's

---

[8] The adult equivalent household size variable, E, is calculated as $E = (A + \alpha K)^{\theta}$, with A the number of adults per household and K the number of children under the age of 10. In this paper the parameters α and θ are set equal to 0.5 and 0.9 respectively (following May *et al.*, 1995 and others).

[9] The poverty headcount ratio is usually calculated using the Foster-Greer-Thorbecke class of decomposable poverty measures (see PROVIDE, 2003 for a discussion). Poverty measures were also calculated to determine the depth and severity of poverty, but we do not report on these in this paper.

State of the Nation address in 2001 as one of thirteen 'nodal areas' that would be targeted for rural development programs.

   Poverty rates vary greatly between racial groups. There is virtually no poverty among White people (0.6%), and only 6.7% of the Asian population is poor. In sharp contrast the poverty rates for Coloured and African people are 19.2% and 42.1% respectively. Poverty is also clearly a rural phenomenon, with the rural poverty rate estimated at 26.1% compared to 20.1% in urban areas. The poverty rate is also much higher among agricultural households (33.0%) than non-agricultural households (19.2%). Some interesting comparisons between poverty and unemployment rates are drawn later in the paper (see section 3.3)

Figure 3: Poverty rates by population subgroups
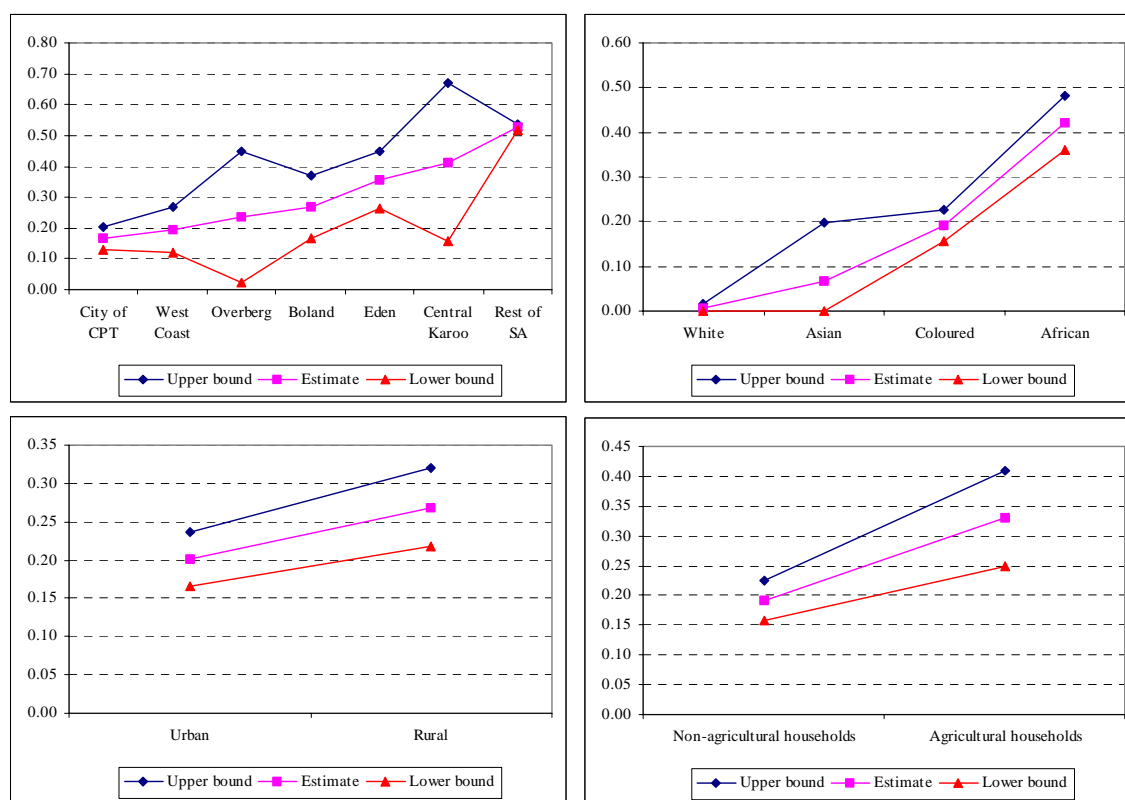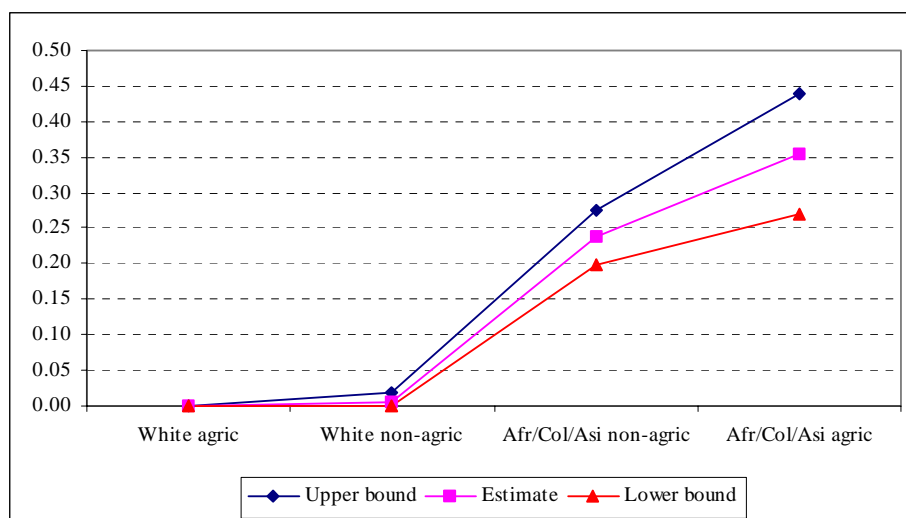

Source: IES/LFS 2000

Note: The poverty headcount ratios show the proportion of *people* living in poverty and not the
          proportion of *households*.

   Section 3.2 explores the distribution of income in the Western Cape. The inequality that exists in the Western Cape, and particularly between racial groups within agriculture, is reflected in the poverty rates shown in Figure 4. Virtually none of the White agricultural population are poor compared to 35.6% of the Coloured/African agricultural population. This rate is considerably higher than the poverty rate for the Asian/Coloured/African non-agricultural population (23.7%), which in turn is much higher than the poverty rate of the

White agricultural population. Virtually none of the White non-agricultural population is defined as poor (0.6%).

Figure 4: Poverty rates by race and agricultural/non-agricultural population

Source: IES/LFS 2000

3.2.   Inequality in the distribution of income

Previously it was shown that the Western Cape is one of the most affluent regions in South Africa. But how is the income distributed among the population? Various income distribution or inequality measures exist in the literature (see PROVIDE, 2003 for an overview). One approach to measuring inequality is using Lorenz curves. A Lorenz curve plots the cumulative share of households against the cumulative share of income that accrues to those households. In a society where income is perfectly distributed the Lorenz curve is a straight line. When the income distribution is unequal, the Lorenz curve will lie below the 'line of perfect equality'. Figure 5 shows that the Western Cape Lorenz curve is always above the South African Lorenz curve, which suggests that income is distributed more equally in this province than in the rest of the country.

Figure 5: Lorenz curves for the Western Cape and South Africa
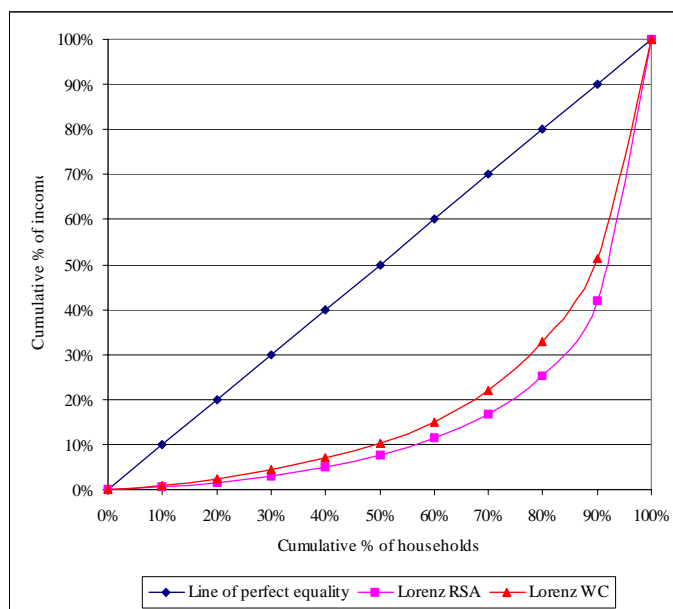
Source: IES/LFS 2000

The Gini coefficient is perhaps the best known inequality measure and can be derived from the Lorenz curve (see PROVIDE, 2003). Mathematically the Gini coefficient varies between zero and one, although in reality values usually range between 0.20 and 0.30 for countries with a low degree of inequality and between 0.50 and 0.70 for countries with highly unequal income distributions. Table 7 shows the Gini coefficients for various groups of countries. Clearly South Africa's Gini coefficient, estimated at about 0.70 (IES/LFS 2000), is very high.

Table 7: Trends in income distribution – 1960 and 1980

Group of Countries	*Gini coefficient: 1960*	*Gini coefficient: 1980*
All non-communist developing countries	0.544	0.602
Low-income countries	0.407	0.450
Middle-income, non-oil-exporting countries	0.603	0.569
Oil-exporting countries	0.575	0.612
Gini coefficient: South Africa (1995)*	0.64	
Gini coefficient: South Africa (2000)*	0.70	

Source: Adelman (1986) cited in Todaro (1997).

Note (*): Author's calculations based on IES 1995 and IES/LFS 2000. Unfortunately not much can be read into the apparent increase in inequality since the data sources are not necessarily comparable.

The Western Cape's Gini coefficient is 0.63 (IES/LFS 2000), which is lower than the national Gini coefficient, but is still high according to international standards. A useful decomposition technique can be used to identify the sources of inequality. From the IES/LFS 2000 a number of household income sources can be identified, namely income from labour (*inclab*), gross operating surplus (*incgos*), and transfers from households (*inctrans*),

corporations (*inccorp*) and government (*incgov*). Total household income (*totinc*) is thus defined as *totinc* = *inclab* + *incgos* + *inctrans* + *inccorp* + *incgov*. McDonald *et al.* (1999) show how the Gini coefficient can be decomposed into elements measuring the inequality in the distribution of these income components. Consider the following equation:

$$G = \sum_{k=1}^{K} \left\{ \left[\frac{\text{cov}(y_k, F(y))}{\text{cov}(y_k, F(y_k))} \right] \left[\frac{2\text{cov}(y_k, F(y_k))}{\mu_k} \right] \left[\frac{\mu_k}{\mu} \right] \right\} = \sum_{k=1}^{K} R_k G_k S_k$$

The index k represents the income sources. S_k is the share of the kth income source in total income, G_k is the Gini coefficient measuring the inequality in the distribution of income component k and R_k is the Gini correlation of income from source k with total income (see Leibbrandt *et al.*, 2001). The larger the product of these three components, the greater the contribution of income source k to total inequality as measured by G. S_k and G_k are always positive and less than one, while R_k can fall anywhere in the range [-1,1] since it shows how income from source k is correlated with total income.

Table 8 decomposes the Gini coefficient of the Western Cape. It also gives decompositions for subgroups by race and agricultural households. A clear pattern that emerges for all the subgroups is a very high correlation between the overall Gini and the Gini within income component *inclab*. Furthermore, *inclab* typically accounts for about 80% of total income. Consequently, it is not surprising to note that most of the inequality is driven by inequalities in the distribution of labour income. Also interesting to note is that *incgos* contributes virtually nothing to overall inequality within agricultural households. Although the Gini for *incgos* is very high, *incgos* does not represent an important source of income for agricultural households. Income from gross operating surplus can be interpreted as returns to physical and human capital, and, in an agricultural context, the returns to land owned by the agricultural household. This suggests that addressing the wage inequalities in agriculture will have the most important impact on overall agricultural inequalities.[10]

---

[10] The results are certainly questionable. Simkins (2003) notes large changes in the levels of *incgos* and *inclab* between IES 1995 and IES 2000 (*incgos* fell significantly, while *inclab* increased), an indication that *incgos* is possibly underreported due to confusion that may exist among respondents as to whether income earned from self-employment in agriculture should be reported as income from labour or income from GOS.

Table 8: Gini decomposition by race and agriculture in the Western Cape

	All households								
	Rk	*Gk*	*Sk*	*RkGkSk*					
inclab	0.94	0.67	0.81	0.51					
incgos	0.76	0.98	0.03	0.02					
inctrans	0.48	0.95	0.02	0.01					
inccorp	0.81	0.96	0.09	0.07					
incgov	0.32	0.87	0.04	0.01					
				0.63					
	African/Coloured/Asian households				White households				
	Rk	*Gk*	*Sk*	*RkGkSk*	*Rk*	*Gk*	*Sk*	*RkGkSk*	
inclab	0.95	0.58	0.86	0.48	0.85	0.53	0.78	0.35	
incgos	0.59	0.97	0.02	0.01	0.66	0.96	0.04	0.03	
inctrans	0.29	0.93	0.02	0.01	0.23	0.94	0.02	0.00	
inccorp	0.73	0.97	0.04	0.03	0.44	0.87	0.13	0.05	
incgov	0.19	0.82	0.06	0.01	0.05	0.92	0.03	0.00	
				0.54				0.43	
	Agricultural households				Non-agricultural households				
	Rk	*Gk*	*Sk*	*RkGkSk*	*Rk*	*Gk*	*Sk*	*RkGkSk*	
inclab	0.99	0.60	0.92	0.55	0.94	0.66	0.81	0.50	
incgos	0.68	0.98	0.01	0.01	0.75	0.98	0.03	0.02	
inctrans	0.32	0.89	0.01	0.00	0.47	0.94	0.02	0.01	
inccorp	0.89	0.99	0.02	0.02	0.80	0.96	0.09	0.07	
incgov	0.24	0.82	0.03	0.01	0.30	0.87	0.04	0.01	
				0.58				0.62	

Source: Author's calculations, IES/LFS 2000

The Gini coefficients suggest that inequality among agricultural households (0.58, with a confidence interval of [0.53, 0.62]) is lower than inequality among non-agricultural households (0.62, with a confidence interval of [0.61, 0.63]). However, given that the confidence intervals overlap, this cannot be confirmed with certainty. An alternative measure of inequality, the Theil index, is very different from other inequality measures. It is derived from the notion of entropy in information theory (see PROVIDE, 2003). The Theil inequality measure for agricultural households is 0.81 [0.70, 0.94] compared to 0.74 [0.70, 0.78] for non-agricultural households. Again the confidence intervals overlap, only this time the inequality estimate is higher for agricultural households.

These findings raise some interesting questions. Cleary income inequality among agricultural households is a concern, but indications are that income is as skewed among non-agricultural households. Land restitution has been placed at the top of the government's agenda to correct inequalities in South Africa. Although similar economic empowerment processes are in place in non-agricultural sectors, the process of agricultural land restitution has been highly politicised. The question is will more equality among agricultural households necessarily impact on the overall inequality in the Western Cape? This question can be answered by decomposing inequality the Theil inequality measure into a measure of

inequality within a population subgroup and a measure of inequality between population subgroups. The Theil inequality measure (*T*) for the Western Cape population as a whole is 0.81. This figure can be decomposed as follows (see Leibbrandt *et al.*, 2001):

$$T = T_B + \sum_{i=1}^{n} q_i T_i$$

The component T_B is the between-group contribution and is calculated in the same way as *T* but assumes that all incomes within a group are equal. T_i is the Theil inequality measure within the ith group, while q_i is the weight attached to each within-group inequality measure. The weight can either be the proportion of income accruing to the ith group or the proportion of the population falling within that group. Table 9 shows the results of a Theil decomposition using income and population weights with agricultural- and non-agricultural households as subgroups.[11] The between-group component contributes only 0.02 (3.2%) to overall inequality. Although both subgroups have relatively high inequality levels, inequality among agricultural households only contributes 0.04 (5.7%) or 0.10 (12.5%) to overall inequality. Non-agricultural households contribute 0.70 (91.1%) or 0.65 (84.3%) to overall inequality in the Western Cape, depending on the weights used. These results suggest that a correction of inequalities within agriculture will do little to reduce inequality in the province as a whole as most of the inequality is driven by inequalities among non-agricultural households.

Table 9: Theil decomposition – agricultural and non-agricultural households

Income weights	q_i	T_i	$\sum_{i=1}^{n} q_i T_i$	T_B	$T = T_B + \sum_{i=1}^{n} q_i T_i$
Black agric households	0.48	0.60	0.29		
White agric households	0.52	0.87	0.45		
Sum			0.74	0.96	1.70
Population weights					
Black agric households	0.96	0.60	0.58		
White agric households	0.04	0.87	0.04		
Sum			0.61	0.96	1.58

Source: Author's calculations, IES/LFS 2000
Note: The different decomposition techniques do not necessarily lead to the same overall Theil index.

3.3.   Employment levels and unemployment

There are approximately 1.55 million workers in the Western Cape (IES/LFS 2000).[12] Statistics South Africa distinguishes between eleven main occupation groups in their surveys.

---

[11] The income weight for agricultural households is the total income to agricultural households expressed as a share of total income of all households in the province. The population weight for agricultural households is expressed as the share of the population living in agricultural households (see Table 2 and Table 5).

[12] 'Workers' are defined here as those people that report a positive wage for 2000. People who were unemployed at the time of the survey but who have earned some income during the previous year will therefore be captured here as workers. In the unemployment figures reported later the *current* status of workers is

These include (1) legislators, senior officials and managers; (2) professionals; (3) technical and associate professionals; (4) clerks; (5) service workers and shop and market sales workers; (6) skilled agricultural and fishery workers; (7) craft and related trades workers; (8) plant and machine operators and assemblers; (9) elementary occupations; (10) domestic workers; and (11) not adequately or elsewhere defined, unspecified.

For simplification purposes the occupation groups are aggregated into various skill groups, namely high skilled (1 – 2), skilled (3 – 5), and semi- and unskilled (6 – 10).[13] Figure 6 explores the racial composition of the workforce by race and skill and compares these figures with the provincial racial composition. Although the overall racial distribution of the workforce is similar to the racial composition of the province, this is certainly not true for each skill group. African and Coloured workers are typically found in the lower-skilled occupation groups, while White workers are more concentrated around the higher-skilled occupations. Since there are very few Asian workers in the Western Cape no conclusions can be drawn about their skills distribution. Clearly much still needs to be done in the Western Cape to bring the racial composition of the workforce more in line with the provincial-level population composition at all skills levels.

---

reported, irrespective of income earned. Employment figures reported here are therefore higher than the official employment figures.

[13] Unspecified workers (code 11) are not included in a specific skill category since the highly dispersed average wage data suggests that these factors may in reality be distributed across the range of skill categories.

Figure 6: Racial representation in the workforce of the Western Cape
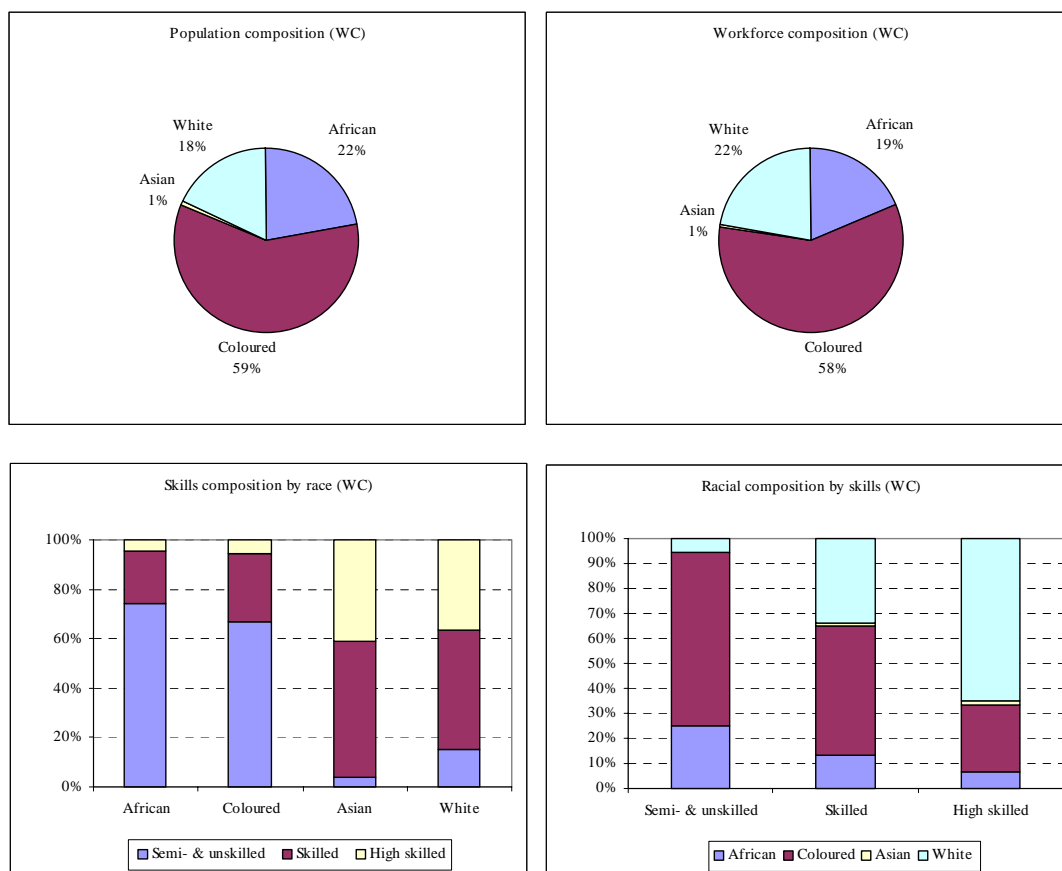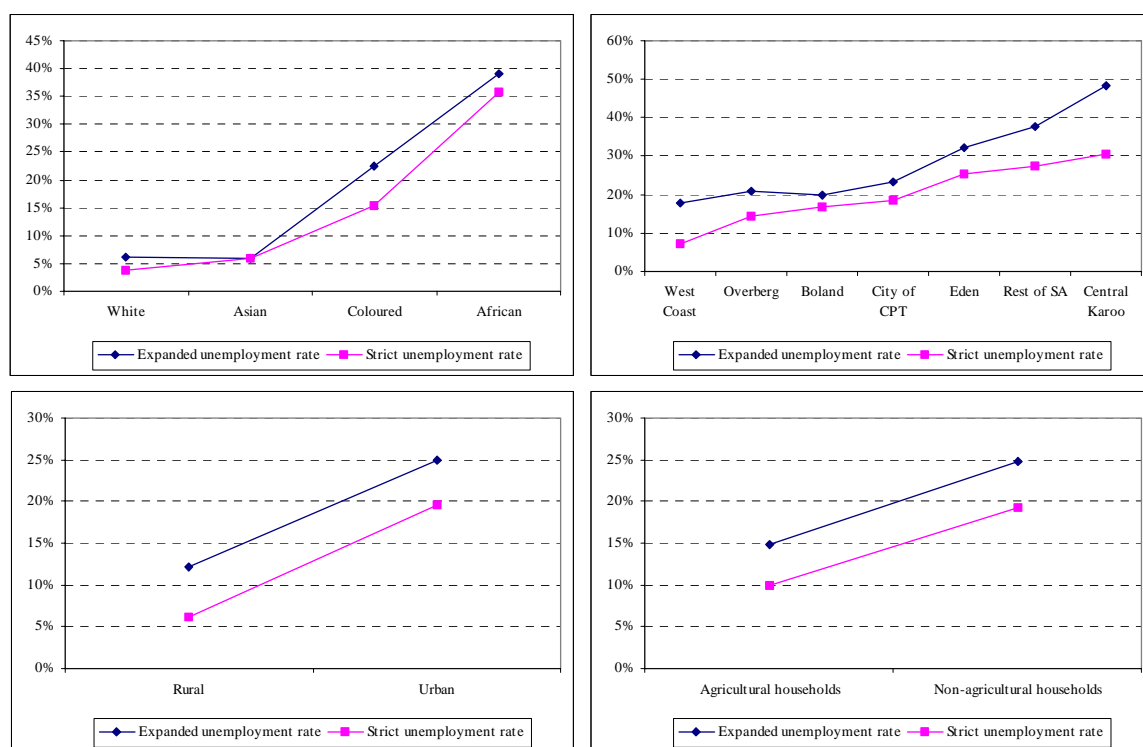

Source: IES/LFS 2000

Statistics South Africa uses the following definition of unemployment as its strict (official) definition. The unemployed are those people within the economically active population who: (a) did not work during the seven days prior to the interview, (b) want to work and are available to start work within a week of the interview, and (c) have taken active steps to look for work or to start some form of self-employment in the four weeks prior to the interview. The expanded unemployment rate excludes criterion (c). The Western Cape has a population of about 3.99 million people of which approximately 1.46 million people are employed (see footnote 12). Under the strict (expanded) definition about 4.84 (4.39) million people are not economically active, which implies that 538,427 (994,830) people are unemployed. This translates to an unemployment rate of 27.3% (40.9%), which is significantly higher than the national rate of 26.4% (36.3%) for 2000.[14]

In Figure 7 the unemployment rates (official and expanded) are compared for different population subgroups. Unemployment rates are very low among White and Asian people, and

---

[14] The official (expanded) LFS March and September 2003 (SSA, 2004) unemployment figures are 31.2% and 28.2% for South Africa respectively.

rises rapidly for Coloured and African people. A comparison of the municipal areas shows that the Central Karoo area not only has a high unemployment rate but also has a large differential between the official and expanded unemployment rates. This is indicative of the long-term unemployment problem in this area where people have given up searching for jobs. Also interesting is Cape Town's ranking as the municipality with the fourth highest unemployment rate in the Western Cape, despite having the lowest poverty rate. This implies that unemployed people have better access to other income sources such as other employed family members or state support grants. Unemployment is also significantly higher in urban areas – an interesting result when compared to South Africa as a whole, where rural unemployment (40.6%) outweighs urban unemployment (33.7%). This may be a result of a steady influx of people, often from other provinces, seeking employment in the Western Cape's cities and towns. Finally, unemployment is also lower among agricultural households than non-agricultural households.

Figure 7: Unemployment rates by population subgroups

Source: IES/LFS 2000

A comparison of unemployment rates by race (Asian/Coloured/African and White) and agricultural/non-agricultural households shows that unemployment levels in agriculture are driven mainly by unemployment among Coloured/African workers. Nevertheless, the unemployment rate for Coloured/African agricultural workers is lower than the unemployment rate for Asian/Coloured/African non-agricultural workers. An interesting

comparison can be made between Figure 8 and Figure 4. The latter shows that poverty is highest among Coloured/African agricultural households, yet unemployment is lower. One possible explanation for this is inaccurate accounting by agricultural households of the value of goods and services (such as food, clothing and housing) received in kind from employers, which leads to an overestimation of poverty rates. However, this does not take away the fact that agricultural wages are often very low compared to non-agricultural wages. This may explain higher employment levels among agricultural households, but often these people can be classified as the 'working poor'.

Figure 8: Unemployment rates by race and agricultural/non-agricultural population
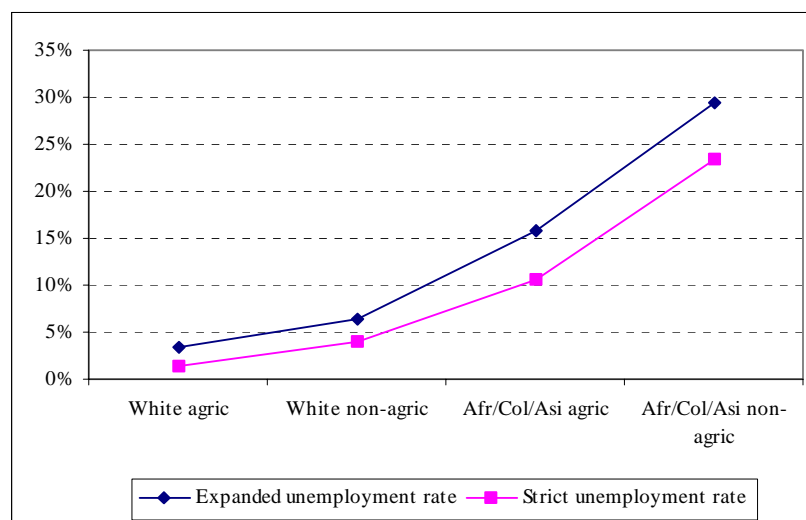
Source: IES/LFS 2000

4. Conclusions

The highly urbanised Western Cape population is relatively well off compared to the rest of South Africa, earning a higher *per capita* income, and facing lower rates of poverty and unemployment. However, the inequalities that exist in the rest of South Africa are also prevalent in the Western Cape, although to a lesser degree. In particular the African and Coloured population face high poverty and unemployment rates. A comparison of the agricultural and non-agricultural population reveals that agricultural households, and particularly African and Coloured agricultural households, are much worse off in terms of income levels and poverty rates. However, interestingly, unemployment rates among agricultural households are lower, which is indicative of low wages but more jobs. Despite the relative disadvantage of the Coloured and African agricultural population the Theil decomposition results suggest firstly that inequality is not necessarily higher among agricultural households than non-agricultural households, and secondly that inequality among agricultural households contributes virtually nothing to overall inequality in the province. This

has important implications for the provincial-level impact of redistribution policies in the agricultural sector.

5.   References

Department of Agriculture (1998). *Agricultural Policy in South Africa. A Discussion* Document, Pretoria.

Leibbrandt, M., Woolard, I. and Bhorat, H. (2001). "Understanding contemporary household inequality in South Africa." In *Fighting Poverty. Labour Markets and Inequality in South Africa*, edited by Bhorat, H., Leibbrandt, M., Maziya, M., Van der Berg, S. and Woolard, I. Cape Town: UCT Press.

May, J., Carter, M.R. and Posel, D. (1995). "The composition and persistence of poverty in rural South Africa: an entitlements approach," *Land and Agricultural Policy Centre Policy Paper No. 15*.

McDonald, S., Piesse, J. and Van Zyl, J. (1999). "Exploring Income Distribution and Poverty in South Africa," *South African Journal of Economics,* 68(3): 423-454.

PROVIDE (2003). "Measures of Poverty and Inequality. A Reference Paper," *PROVIDE Technical Paper Series*, 2003:4. PROVIDE Project, Elsenburg. Available online at www.elsenburg.com/provide.

PROVIDE (2005a). "Creating an IES-LFS 2000 Database in Stata," *PROVIDE Technical Paper Series*, 2005:1. PROVIDE Project, Elsenburg. Available online at www.elsenburg.com/provide.

PROVIDE (2005b). "Forming Representative Household Groups in a SAM," *PROVIDE Technical Paper Series*, 2005:2. PROVIDE Project, Elsenburg. Available online at www.elsenburg.com/provide.

Simkins, C. (2003). "A Critical Assessment of the 1995 and 2000 Income and Expenditure Surveys as Sources of Information on Incomes," *Mimeo*.

SSA (2002a). *Income and Expenditure Survey 2000,* Pretoria: Statistics South Africa.

SSA (2002b). *Labour Force Survey September 2000,* Pretoria: Statistics South Africa.

SSA (2003a). *Census 2001,* Pretoria: Statistics South Africa.

SSA (2003b). *Gross Domestic Product, Statistical Release P0441, 25 November 2003,* Pretoria: Statistics South Africa.

SSA (2004). *Labour Force Survey, September 2003,* Pretoria: Statistics South Africa.

Todaro, M.P. (1997). *Economic Development,* 6th Edition. Longman: London.

Background Papers in this Series

Number	Title	Date
BP2003: 1	Multivariate Statistical Techniques	September 2003
BP2003: 2	Household Expenditure Patterns in South Africa – 1995	September 2003
BP2003: 3	Demographics of South African Households – 1995	September 2003
BP2003: 4	Social Accounting Matrices	September 2003
BP2003: 5	Functional forms used in CGE models: Modelling production and commodity flows	September 2003
BP2005: 1, Vol. 1 – 9	Provincial Profiles: Demographics, poverty, inequality and unemployment (*)	August 2005

Note (*): One volume for each of the nine provinces. Also see Working Paper 2005:3.

Other PROVIDE Publications

Technical Paper Series
Working Paper Series
Research Reports