Background Paper Series

PROVIDE PROJECT

The Provincial Decision-making Enabling Project

Background Paper 2009:1(3)

A Profile of the Northern Cape Province: Demographics, Poverty, Income, Inequality and Unemployment from 2000 till 2007

Elsenburg
February 2009

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 of the PROVIDE Project.

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

A Profile of the Northern Cape Province: Demographics, Poverty, Income, Inequality and Unemployment from 2000 till 2007[1]

Abstract

The Northern Cape agricultural sector is a dynamic and livelihood sustainable sector. Approximately 7% of the Northern Cape value added gross domestic product comes through agriculture and 5.4% of the population in the Northern Cape is working in this sector. There is thus a need for macro-economic research in order to investigate potential and current challenges and opportunities.

This paper examines several of these challenges namely demographic compositions, unemployment, income distribution, poverty and inequality. It will provide results from the Labour Force Surveys from 2000 until 2007 with a more in-depth look into 2007. Population and labour force statistics provide the foundation for further analysis. This paper indicates that unemployment is being dominated by the African and Coloured individuals and that employment in the Northern Cape agricultural sector is on a decreasing trend. It shows further that income distribution is highly skewed which leads to high levels of poverty and inequality. Agricultural incomes are lowest across all races compared to non-agricultural incomes except for the White farmers/farm workers who earn more than their counterparts in other sectors. Poverty is extremely high for Coloured workers in the Northern Cape agricultural sector but has decreased since 2000. One of the principal concerns is that of inequality. It shows no improvement since 2000 with a high in-between race inequality and lower within race inequality in the Northern Cape agricultural sector.

Throughout the report the Northern Cape agricultural sector is compared to the non-agricultural sector, Northern Cape overall and South Africa for a better understanding of the Northern Cape agricultural sector's position. This report indicates that the Northern Cape agricultural sector could benefit from intervention and support to

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[1] The main authors of this paper are Elné Jacobs and Cecilia Punt, Western Cape Department of Agriculture, and David Uchezuba and Molao Bashi, Northern Cape Department of Agriculture.

correct the present state of decreasing employment, low income, and high poverty and inequality levels.

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1.   Introduction

The Northern Cape is home to about 0.9 million individuals and about 49 000 are working in the agricultural sector (Statistics South Africa, 2007a). Therefore 5.4% of the Northern Cape population is working in the agricultural sector, but it contributed 7% through value added for the economy in 2006 (Statistics South Africa, 2007b). This shows that the agricultural sector is an important sector in the Northern Cape and thorough analysis is needed to identify areas of need to better the sector.

This paper investigates the Northern Cape agricultural sector by analysing the Labour Force Surveys conducted by Statistics South Africa. These surveys are conducted biannually, and since 2000 done in March and September. The focus of this paper is to analyse trends through years (2000 till 2007) and to take a deeper look at the 2007 data. Like all datasets, the Labour Force Surveys have some restrictions, and these are discussed in the next section together with the measurement issues confronted throughout the study.

Section 3 examines the population statistics of South Africa and the Northern Cape, together with the labour force profiles for South Africa, the Northern Cape and the Northern Cape agricultural sector. Unemployment then will be discussed as well as employment statistics of the Northern Cape agricultural sector. The premises of this section are demographic analyses. Section 4 analyses the income profiles of the agricultural sector. Poverty indices are next investigated, and the Foster-Greer-Thorbecke class of indices was used. This is explained in this section together with the results for the agricultural sector. Section 6 takes a closer look at inequality within the province by using the Gini, Theil and Lorenz curve analysis. Throughout the paper the results of the Northern Cape agricultural households are compared with the Northern Cape and South Africa data. Lastly conclusions are drawn from the provided information.

2.   Measurement and challenges of dataset

2.1.   Labour Force Survey

The Labour Force Surveys are conducted by Statistics South Africa biannually (March and September). For this paper, two datasets were used. Both datasets were obtained from Mr. Derek Yu from the University of Stellenbosch. This was done to have consistency between the two datasets. The first dataset is the 2007 March Labour Force Survey and it was used for more in-depth analysis such as location of work activity or analysis on district level. The second dataset is a merged dataset of all the Labour Force Surveys from 2000 until 2007. This was used for over-time analysis. This dataset only includes the working population (15 – 65 years),

but does have the information regarding the rest of the household for household level analysis. Adjustments were also made with the consumer price index (CPI) of wages for individuals as well as households to have reliable comparisons across time. The CPI adjusted wages to the basis year of 2000.

2.2.   Extent of data

Respondents had to answer six sections in the most recent survey. The first section asks demographic information, section two about activities the past seven days, section three unemployment and non-economic activities, section four the main work activities the past seven days, section five about job creation and public works programmes and the last section (six) about agricultural activities. The surveys did change with time, but no major change occurs, and the demographic and employment sections remained relatively unchanged. In the Labour Force Survey of March 2007 there are 109 551 observations, whilst the Labour Force Survey from 2000 until 2007 contains between 23 000 and 70 000 observations depending on the period (period refers to when the survey was done, i.e. March 2000 or September 2005).

Weights were calculated by Statistics South Africa, and were used throughout the analysis to scale data from sample to population level[2]. It needs to be mentioned that the Indian population is the minority in South Africa and thus data for this sub-group might be problematic due to low observation numbers. Measurement errors do occur, and thus the reader must be careful when quoting figures for the Indian population.

In a number of cases, respondents did not provide any answers to certain questions. One of these problematic questions are that of income where respondents are averse to give their personal income information. If no answer was given for income, it was classified as a dot income ("."). The statistical programme used for economic analysis (STATA) does not consider dot incomes as entries, and thus will disregard it when calculating mean or median income. But calculating household incomes, dot incomes are read as zero, thus a household with 2 individuals, one earning R100 and the other one did not respond, will have a household earning of R100. This means all household and per capita calculations are distorted and biased towards zero income. Poverty and inequality calculations are affected the most, due to calculation surrounding the rates (see respective sections for calculations of different rates). Poverty and inequality rates for certain subgroups might be exaggerated due to non response. This is especially troublesome when non response occur just within a specific subgroup. If the non response is according to the population composition the rates will be inflated accordingly, but if it is a skew distribution, all rates are inflated but one group more than the other.

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[2] See Metadata in Labour Force Survey reports. Available online at www.statssa.org.za

These inflated rates are difficult to pinpoint, because non response is unpredictable. Non response can be any value, and there are different ways of dealing with this. One response is to regard all non response as zero, another is to use hot deck imputation methods. Schoier (2008) states that this method uses respondents that fully completed the questionnaire to match with respondents that have missing values, and then impute their values into the non response values. This preserves the distribution of item values and there are different methods to obtain the 'donor value'. One way is to filter through certain variables (example race, sex etc.) for both donor and receiver, and when these variables match the rest of the donor information will be imputed into the receiver's missing values.

For South Africa in 2007, 62.68% of respondents did not provide information regarding income. If a sub sample of all respondents that are living in a household under the poverty line is taken, 83% did not provide income information. This becomes problematic especially in cases where the sample size is very small as the case with the White and Indian population. If only 17% (100% - 83%) of income information for those living under the poverty line is available, a small sample size will have negative impacts on poverty. For example, in the Northern Cape there are 97 entries for White individuals living under the poverty line. On an average only 17% of that information is available, leaving only 16 entries. In reality, there are only 14 entries left which is too small to make any significant derivation. In the Northern Cape, 1233 entries were made in the Coloured population group living under the poverty line. In reality 83% did not respond, leaving 210 entries. Although 210 entries is still a small sample size, a better analysis can be done. This trend of low White and Indian samples continues throughout all provinces, where the African and Coloured populations have a bigger sample size to do better analysis with.

For the purpose of this paper, non-response was disregarded in income profiles, but treated as a zero in household income calculations. In the poverty profiles, per adult equivalent household income is used and thus missing values are also treated as zero.

This paper focuses on the Northern Cape agricultural households, but does compare certain statistics with the non-agricultural households in the Northern Cape and South Africa. South Africa is a diverse country and therefore social parameters i.e. income, poverty and unemployment are often compared across population groups. Population groups are classified according to the classification system used by Statistics South Africa in the Labour Force Surveys. Demographic analysis was also done according to gender, industry, occupation or skills level.

District level analysis was also done as mentioned earlier, and for clarity the following figure presents the Northern Cape and its districts. There are five districts within the Province namely the Kgalagadi, Namakwa, Pixley ka Seme, Siyanda and Frances Baard. Figure 1 reflects this:

Figure 1: Northern Cape districts map

Source: Demarcation Board (www.demarcation.org.za)

2.3.   Challenges

2.3.1.   *Definitions of agricultural households*

Agricultural households are defined as households whose main income (more than 50%) is derived from employment in the agricultural industry, or income from an occupation classified as a skilled agricultural worker, regardless the industry. In addition a household is also defined as an agricultural household if the household is involved in agricultural activities that entail the production of food crops and/or keeping of animals and that these activities provide the household with its main food source or income source. Households that rely on agricultural activities for food supply or (non-salary) income are classified as subsistence farmers for purposes of this report. Information about subsistence farming was derived from the questions in section six of the Labour Force Survey where respondents were asked to indicate the aim of their involvement in agricultural activities as one of the following: a) as main source of food for the household, b) as main source of income/earning a living, c) as extra source of income, d) as extra source of food for the household, or e) as a leisure activity of hobby. Since there is no

indication of the value of production by these households, households were classified as agricultural households if they selected either a) or b) in the questionnaire. Both datasets, i.e. the dataset for 2007 and the dataset for 2000 till 2007, contain information on employment in the agricultural industry, or income from an occupation classified as a skilled agricultural worker, regardless the industry. However information on subsistence farming as defined above, was only available in the dataset for 2007; hence workers involved in subsistence farming, but not employment in agriculture, are not included in the numbers presented in this report when looking at trends over the 2000 till 2007 period.

Non response was treated as stated in section 2.1, and thus not regarded in the definition of agricultural households. Only the labour force was considered (thus individuals between 15 and 65) for analysis to gain information about the current employees, but all members were included in household analysis.

2.3.2.   *Income Bands*

Respondents were asked their respective incomes, and two different answers were accepted. Respondents could either state the specific value, or report it in income bands. These specific values and income bands were in Rand terms and either weekly, monthly or annual. It must be kept in mind that the earnings reported are from the main source of income (thus labour income), therefore social grants, remittances and in-kind transfers are not taken into account. In order to attain a value for the income bands, the interval regression method was used. This method consists of a generalised Tobit model where-after pseudo-maximum likelihood measures are estimated. The assumption is made that earnings follow a lognormal distribution. Interval-coded information is incorporated into the likelihood function to obtain the specific values for each income band. For more information, see Daniels and Rospabé (2005) and Von Fintel (2006).

3.   Demographics

3.1.   Population statistics

In order to do social analysis, racial compositions are needed on national, provincial and district level for the population. The population will also be looked at in terms of households as defined in section 2.2.1. Table 1 offers the number of people residing in South Africa and Northern Cape by race, together with their shares of the population in 2007.

Table 1: Racial composition of South Africa and Northern Cape in 2007

Population Group	South Africa	Share	Northern Cape	Share
	Number	%	Number	%
African	37,887,594	79.42	356,849	38.99
Coloured	4,223,511	8.85	469,979	51.35
Indian	1,168,672	2.45	4,708	0.51
White	4,348,366	9.11	80,030	8.74
Other	8,764	0.17	3,687	0.40
Total	47,706,907	100.00	915,254	100.00

Source: Own calculation from Labour Force Survey 2007

According to Table 1 the total population of South Africa is 47.7 million. It can be seen from the table that African population group is the majority in South Africa representing 79.42% of the total population. The Indian population represents about 2.45% of the total population while the population of Whites and Coloureds are relatively close at 9.11% and 8.85% respectively. The population estimate for Northern Cape is different compared to that of South Africa. Unlike South Africa, the Northern Cape which has less than a million people (about 2% of the total population) is dominated by the Coloured community which represents 51% of the total Northern Cape population. In the Northern Cape, the African population is about 38.99% while the Whites and Indians represents 8.74% and 0.51% respectively.

Information on racial compositions at district level for the Northern Cape Province is given in Table 2. It can be seen from the table that Frances Baard district have the largest share of people in the Northern Cape (38.89%) and also the largest share of all population groups except for the Coloured population. This may be attributed to the fact that Frances Baard district is the provincial headquarter of the Northern Cape with larger economic activities hence larger urban migration destination in the province. The number of people living in Siyanda and Pixley Ka Seme districts represents 24.12% and 19.58% respectively of the population of Northern Cape.

Table 2: Racial Composition of Northern Cape districts in 2007

District	Population Group					
	African	**Coloured**	**Indian**	**White**	**Total**	**Share (%)**
Kgalagadi	30,952	13,574	359	6,391	51,276	5.60
Share %	8.67	2.89	2.43	9.01		
Namakwa	3,683	97,448	287	6,566	108,117	11.81
Share %	1.03	20.73	1.94	9.25		
Pixley ka Seme	34,208	133,930	10,065	1,000	179,203	19.58
Share %	9.59	28.50	68.13	1.41		
Siyanda	67,858	128,186	702	23,972	220,718	24.12
Share %	19.02	27.27	4.75	33.78		
Frances Baard	220,148	96,840	3,361	33,037	355,939	38.89
Share %	61.69	20.61	22.75	46.55		
Total	356,849	469,979	14,773	70,965	915,254	

Source: Own calculation from Labour Force Survey 2007

The racial composition of the agricultural and non-agricultural households (as defined in section 2.2.1) in Northern Cape in 2007 is given in Table 3. A household is defined in a specific population group according to the household head's race. The household head is classified as person number one that completes the questionnaire, thus it is not necessarily the household head that complete the questionnaire under the title 'person number one', but the assumption is made that the household head is more likely to complete the questionnaire first. Unfortunately mixed households are not acknowledged, and will be classified according to the household head's race.

Table 3: Racial Composition of agricultural households and non-agricultural households in the Northern Cape 2007

Population Group	Agricultural		Non-agricultural		Total	
	Number	**Share**	**Number**	**Share**	**Number**	**Share**
African	11,320	34.38	105,642	42.88	116,961	41.88
Coloured	15,196	46.15	109,396	44.4	124,592	44.61
Indian	60	0.18	1,766	0.72	1,826	0.65
White	5,925	17.99	28,764	11.67	34,688	12.42
Total	32,927*	100	246,379	100	279,306	100.00

Source: Own calculation from Labour Force Survey 2007

*See Table 5 for detailed breakdown

The agricultural sector is dominated by Coloured households, similar to the pattern in the non-agricultural sector. The Indian households have the lowest share in both agricultural households and non-agricultural households. Taking a closer look at the agricultural Northern Cape district composition, the following table is obtained:

Table 4: Racial Composition of agricultural households in the Northern Cape districts

District	Population Group					
	African	**Coloured**	**Indian**	**White**	**Total**	**Share (%)**
Kgalagadi	1,471	408	0	712	2,592	7.87
Share %	13.00	2.69	0.00	12.02		
Namakwa	765	2,899	60	475	4,199	12.75
Share %	6.75	19.08	100.00	8.02		
Pixley ka Seme	846	5,383	0	963	7,312	22.21
Share %	7.48	35.42	0.00	16.26		
Siyanda	4,773	5,865	0	2,624	13,261	40.27
Share %	42.16	38.59	0.00	44.28		
Frances Baard	3,465	641	0	1,151	5,563	16.89
Share %	30.61	4.22	0.00	19.42		
Total	11,320	15,196	60	5,925	32,927	

Source: Own calculation from Labour Force Survey 2007

Table 4 indicates that there are about 32 900 agricultural households in Northern Cape with the Siyanda district having the largest share (40.27%) and the Kgalagadi district with the least share (7.87%). The share of each of the racial groups in the five districts was also determined. The aim was to know the percentage of the agricultural households amongst the racial groups that live in the various district of the province. The results show that the majority of Coloured households reside in Siyanda (38.59%) and Pixley ka Seme (35.42%). The Africans are most predominant in Siyanda (42.16%) and the Frances Baard (30.61%) districts while the White households are more dominant in the Siyanda district (44.28%) than any other districts. Compiling a stacked column chart for comparing race compositions, the results are as follows:

Figure 2: Agricultural households in the Northern Cape districts
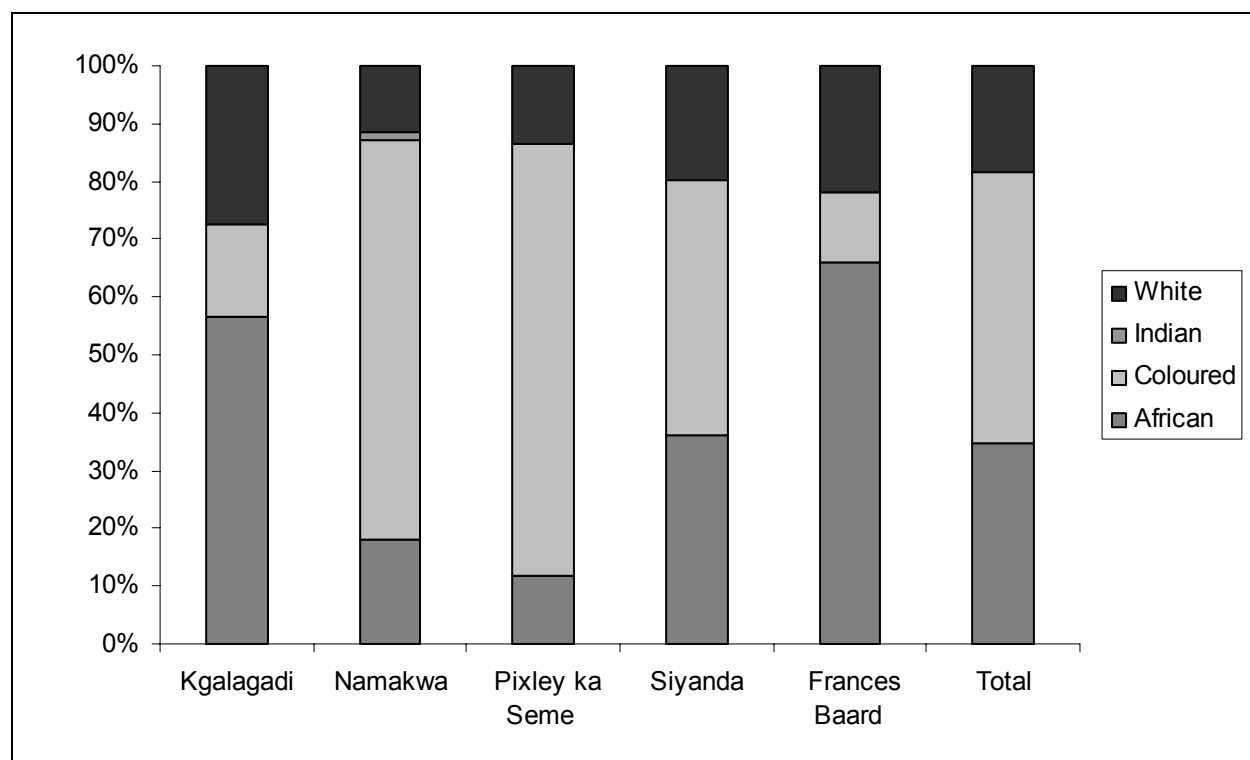
Source: Own calculation from Labour Force Survey 2007

Figure 2 clearly indicates that African households are more dominant in the Kgalagadi and Frances Baard districts, while the Coloured households are dominant in the Namakwa and Pixley ka Seme districts. White agricultural households are found in all districts, but they are in the minority.

Since the democratisation of South Africa in 1994, there has been some agricultural policy reforms aimed at correcting the imbalance of the past and transforming the sector, amongst these policies are the various agricultural and institutional reform programmes. Nonetheless, the extent to which these programmes encouraged participation in the agriculture is not known with certainty. Analysing the labour force survey from 2000 to 2007 the trend in the number of agricultural households in the Northern Cape can be determined. Figure 3 indicate the changes in both all households with a member(s) working in agriculture and households whose agricultural income is more than 50% of household income. In 2007 there were 39 884 households with members employed in agriculture, while for 31 665[3] of these households the contribution of income from employment in agriculture is more than 50% of the household income. It must be kept in mind that due to the dataset used for obtaining flow charts (thus over time), section 6 of the LFS questionnaire (access to agricultural land and main reason for it)

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[3] Comparing this to Table 5, it corresponds to the total of the first two columns.

was excluded. Households that therefore have access to agricultural land and this land is the main source of non-salary income and/or food, are not counted in Figure 3.

According to the chart, there has been a fluctuating trend in the composition of agricultural households since the year 2000. More households engaged in agriculture between 2001 and 2002. This corresponds to the period of global economic recession that lead to the plunging of the South African currency in the foreign exchange market which precipitated more involvement in agriculture especially for the production of more staple foods. The trend picked up again in 2006 to 2007 which may be due to the sustained growth in the South African economy.

Figure 3: Agricultural households over time

Inside chart:
$y = 669.43x^3 - 9504.6x^2 + 35196x + 23603$

Legend:
- Agricultural Households >50%
- All Agricultural Households
- Poly. (Agricultural Households >50%)
- Poly. (All Agricultural Households)

$y = 581.72x^3 - 8712.4x^2 + 34917x + 11270$
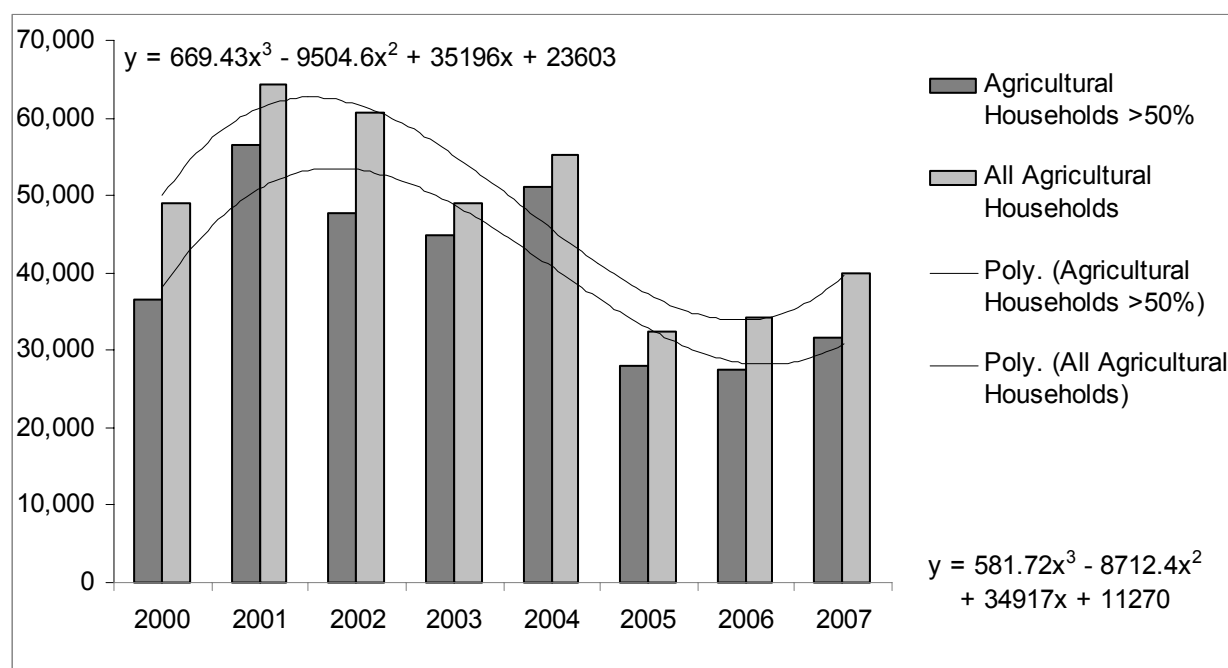
Source: Own calculation from Labour Force Survey 2000-2007

The average household size by race is compared with the national average in Figure 4. The average household size across the racial groups for the country is larger compared to the composition for total Northern Cape households, the Northern Cape agricultural and non-agricultural households. The only exception is the Coloured households where the Northern Cape and the non-agricultural averages exceed the South African average.

Figure 4: Household size by race for 2007
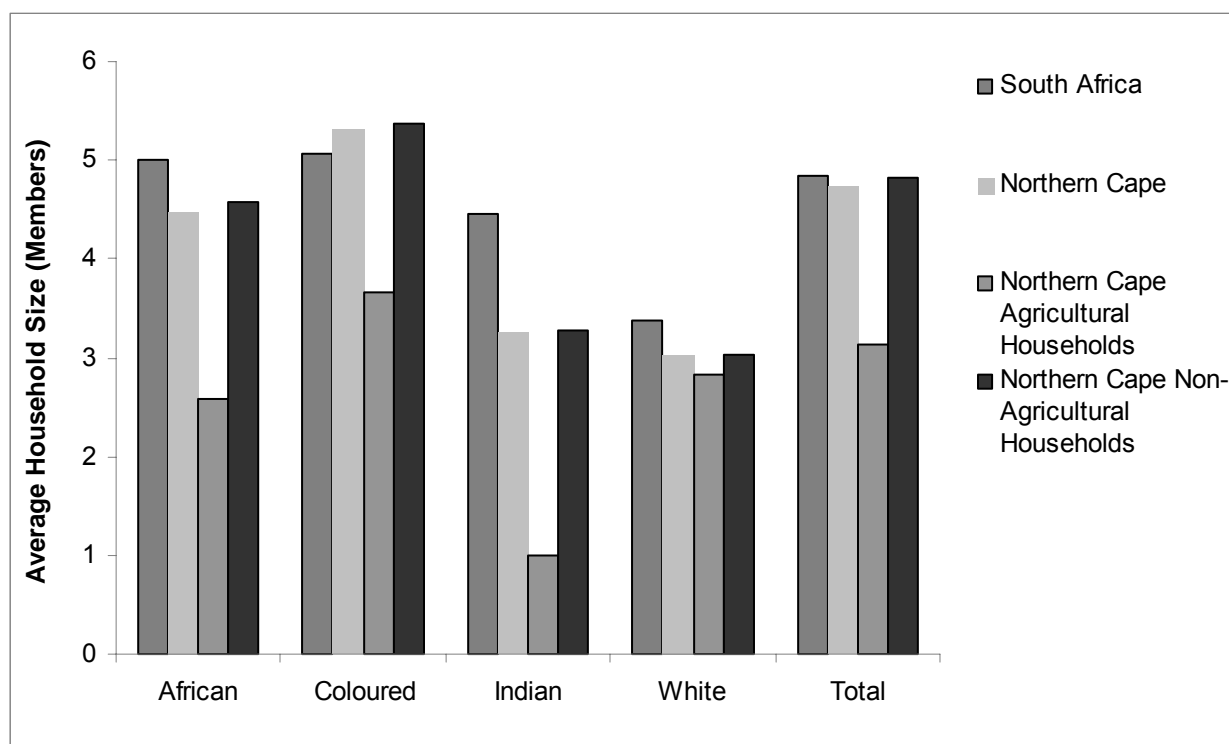
Source: Own calculation from Labour Force Survey 2000

The trend in the agricultural household composition over a seven year period (from 2000 to 2007) is shown in Figure 5. The figure indicates that the Coloured agricultural households have the largest household size; even more than the average for the province for the seven years under review. The White and African population have the least number of people within the household.

Figure 5: Household size from 2000 till 2007 for the agricultural households
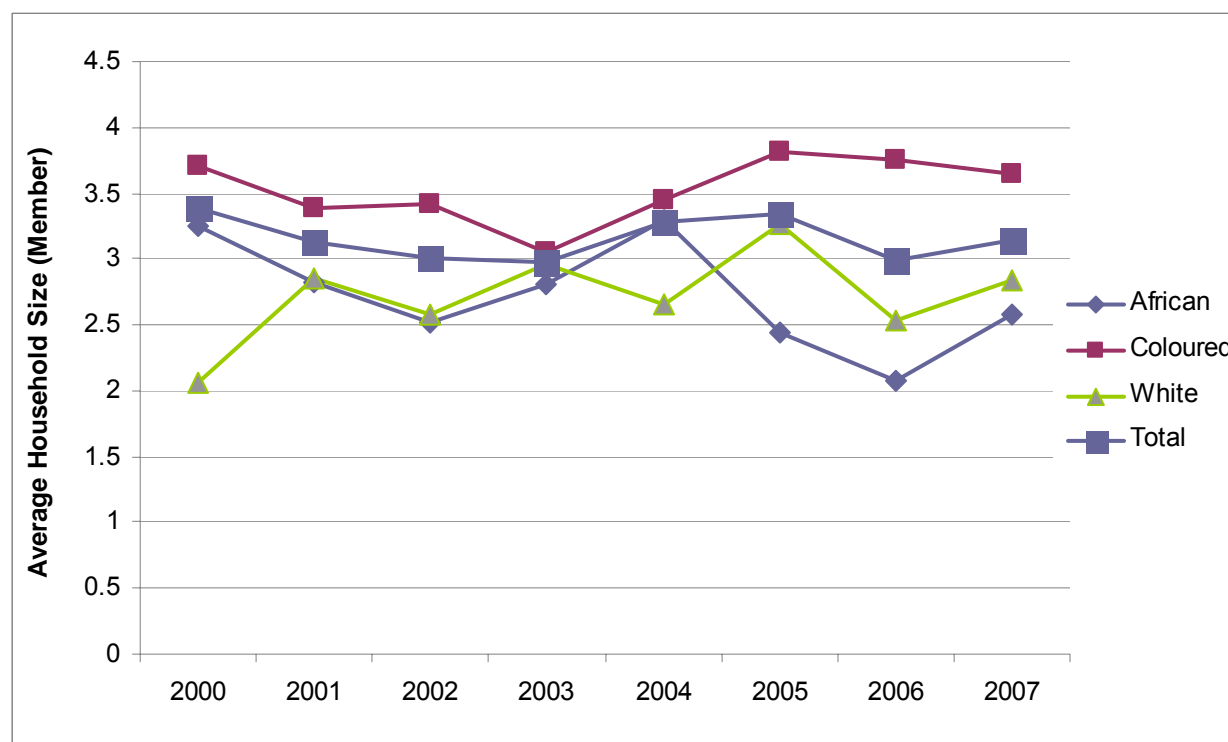
Source: Own calculation from Labour Force Survey 2000-2007

Economic activities within the agricultural households are investigated next to identify whether the households obtain their income and/or food from employment or subsistence farming. Table 5 indicates the number and share of agricultural households in the Northern Cape that obtain more than 50% of their income from agricultural activities, or whose main food source is from agricultural activities. These households have indicated their main source of income from agriculture, i.e. a) from employment in the agricultural sector or by agricultural occupation (column 1), b) from subsistence farming only (as defined in section 2.2.1) (column 4), or c) from a combination of a) and b) (columns 2 and 3). The Coloured households have the largest share (50.27%) of employment in the agricultural sector, and this is consistent with the employment numbers stated earlier. There are only 378 households in the Northern Cape that depend solely on subsistence farming and all are dependent on it for their main source of food (as opposed to main source of non-salary income). 89.2% of agricultural households derive more than 50% of their household income from employment within the agricultural sector, while households involved with only subsistence farming comprise a mere 1.15%. There are 2 254 households that depend on subsistence agriculture, but they also receive salary income from employment in agriculture and this salary income is more than 50% of the household income. While 925 households depend on subsistence agriculture, but their salary income from employment in agriculture is less than 50% of the household income.

Table 5: Economic activity for agricultural households by population group in 2007

	Only Employment and Occupation and >50% income		Subsistence farming and >50% income		Subsistence farming and <50% income		Subsistence farming only		Total	
Population group	**Number**	**Share**	**Number**	**Share**	**Number**	**Share**	**Number**	**Share**	**Number**	**Share**
African	11,163	38.01	119	5.3	37	3.99			11,320	34.38
Coloured	14,764	50.27	356	15.79			77	20.3	15,196	46.15
White	60	0.21							60	0.18
	2,956	10.07	1,779	78.91	888	96.01	302	79.7	5,925	17.99
Total										
Activity Share	29,369	100.00	2,254	100.00	925	100.00	378	100	32,927	100
	89.20		6.85		2.81		1.15		100	

Source: Own calculation from Labour Force Survey 2007

3.2.   South African and Northern Cape labour force

Every citizen in a country can be classified as either economically active or economically inactive. If an individual is economically active, (s)he must be between the ages 15 and 65, and able and willing to work. (S)He is part of the labour force, whether employed or unemployed. The not economically active population is either not able or willing to work, or does not fall in the required age range. The labour force is divided between the employed and unemployed. In order to be classified as unemployed, there are two definitions, a broad (expanded) and narrow (official) definition. The broad definition states an individual is unemployed if (s)he: (a) did not work the past 7 days; (b) wants to work and is available to start within 2 weeks. The narrow (official) definition is the broad definition including (c) is actively searching for work the past 4 weeks (Statistics South Africa). The labour force can thus vary according to which definition of unemployment is used.

Table 6 represents the number and share of people in the labour force according to the strict and broad definition in 2007 for South Africa and Northern Cape. According to Table 6, there are 20.4 million (by broad definition) individuals in the South African labour force (16.9 million according to the strict definition). Compared to the Northern Cape, there are about 409 397 (broad definition) and 352 114 people according to the strict definition.

Table 6: South African and Northern Cape labour force in 2007

	South Africa				Northern Cape			
	Broad		**Strict**		**Broad**		**Strict**	
	Number	**Share**	**Number**	**Share**	**Number**	**Share**	**Number**	**Share**
African	15,825,035	77.44	12,671,070	74.81	164,615	40.21	137,943	39.18
Coloured	1,977,240	9.68	1,746,798	10.31	199,357	48.7	170,376	48.39
Indian	513,937	2.52	473,161	2.79	2,504	0.61	2,430	0.69
White	2,117,799	10.3	2,047,715	12.09	42,921	10.48	41,365	11.75
Total	20,434,011	100	16,938,744	100	409,397	100	352,114	100

Source: Own calculation from Labour Force Survey 2007

The Coloured community in the Northern Cape is the largest contributor to the labour force with 48.4% of the total, while the Indian population contributes about 0.7%.

3.3.   Unemployment in South Africa and the Northern Cape

In explaining the labour force, unemployment was defined. The next table (Table 7) and figure (Figure 6) represent the unemployment data (in numbers and percentage respectively) for South Africa and the Northern Cape Province by population group.

Table 7: Unemployment numbers for South Africa and Northern Cape by population group in 2007

|	South Africa		Northern Cape	
	Broad	**Strict**	**Broad**	**Strict**
African	6,984,075	3,830,110	68,605	41,933
Coloured	576,177	345,735	78,886	49,905
Indian	105,855	65,079	222	148
White	158,206	88,122	3,096	1,540
Total	7,830,004	4,330,958	150,809	93,526

Source: Own calculation from Labour Force Survey 2007

Table 7 indicates that the leading population group in terms of unemployment is the African population across both definitions for South Africa whilst the Coloured population have the largest numbers in the Northern Cape. The smallest unemployed group in South Africa and the Northern Cape is that of the Indian population followed by the White subgroup across all definitions.

The unemployment rates for South Africa and the Northern Cape by population group in 2007 is given in Figure 6. The figure shows that Africans have the highest unemployment rate in South Africa and in the Northern Cape for both broad and strict definitions. For example, for

the broad definition, the unemployment rate for Africans in South Africa is 44%. In the Northern Cape, it is about 42%. The White and the Indian population in both national and provincial estimates have relatively lower unemployment rates as compared to the African and the Coloured population.

Figure 6: Unemployment rates for South Africa and Northern Cape by population group
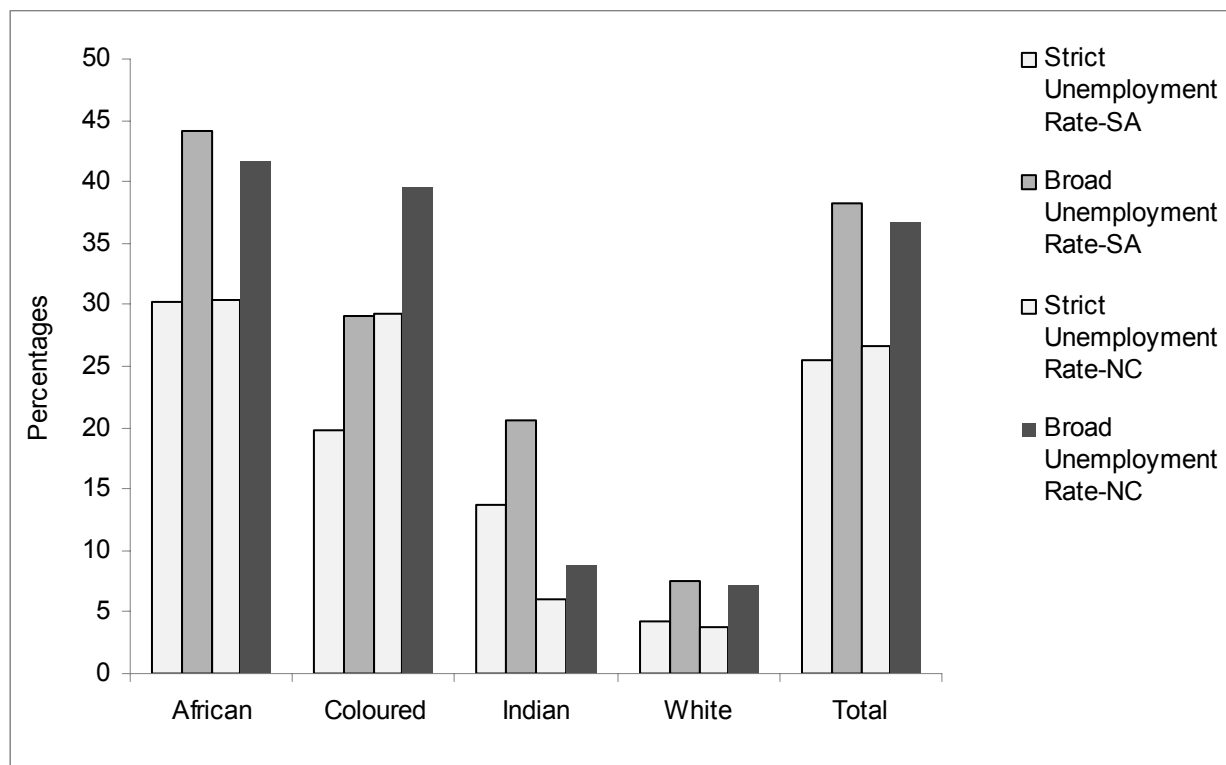
Source: Own calculation from Labour Force Survey 2007

   Taking a closer look at the Northern Cape, the following information regarding district level was obtained. In Figure 7, Pixley ka Seme has the highest unemployment levels considering the broad and strict definitions (46.68% and 40.16% respectively). The lowest unemployment levels are in Siyanda (23.77% and 13.45%). The broad and strict rates show a similar pattern towards unemployment, with Pixley ka Seme the highest, Frances Baard second highest, followed by Namakwa, Kgalagadi and lastly Siyanda.

Figure 7: Unemployment rates for districts in the Northern Cape
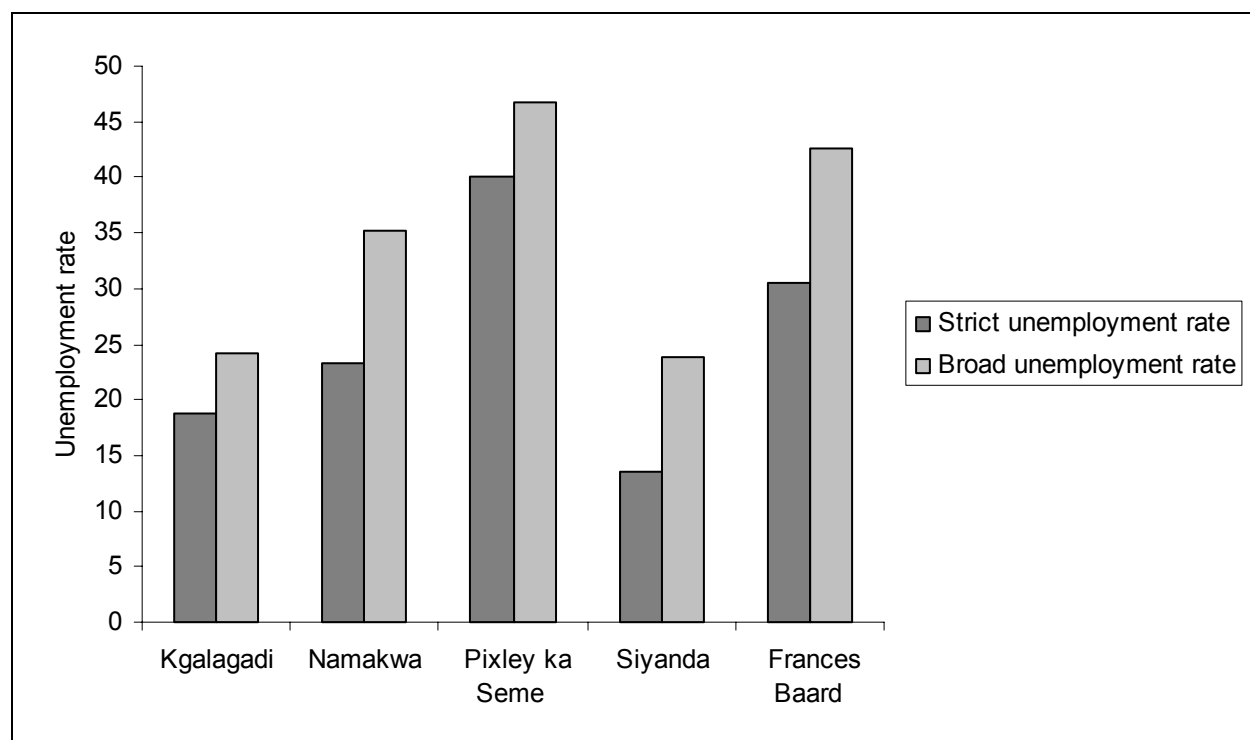
 Source: Own calculation from Labour Force Survey 2007

3.4.   Work-force and Employment in Northern Cape agriculture

A work-force is defined as all individuals that are able to work, of working age and employed according to various dictionaries (www.thefreedictionary.com ; www.patana.ac.th ; www.allwords.com), although Wikipedia (www.wikipedia.org) excludes the management and only refer to manual labour. For the purpose of this report, the full definition (including management) will be used to avoid making sample sizes too small by excluding management data.

The agricultural work-force in 2007 for both South Africa and the Northern Cape estimates are presented in Table 8 and Table 9. As can be seen from Table 8, the Africans dominate the South African agricultural work-force whereas the Coloured community is the leading component of the agricultural work-force in the Northern Cape.

Table 8: South African and Northern Cape agricultural work-force

	South Africa		Northern Cape	
	Number	**Share**	**Number**	**Share**
African	741,228	75.82	14,351	28.81
Coloured	143,172	14.65	26,215	52.63
Indian	5,458	0.56	60	0.12
White	87,728	8.97	9,188	18.44
Total	977,586	100	49,814	100

Source: Own calculation from Labour Force Survey 2007

There is a relatively small number of Indians recorded in the Northern Cape agricultural work-force (representing 0.12%) and only 0.56% nationally. The White population's share in South Africa and the Northern Cape are around 8.97% and 18.44% respectively. Decomposing the Northern Cape to a district level by gender, the following is obtained:

**Table 9: Agricultural work-force of the Northern Cape districts by gender in 2007**

	Male	**Share**	**Female**	**Share**	**Total**	**Share**
Kgalagadi	2,660	74.55	908	25.45	3,568	100.00
Namakwa	4,925	82.84	1,020	17.16	5,946	100.00
Pixley ka Seme	9,159	91.70	829	8.30	9,988	100.00
Siyanda	16,986	66.13	8,699	33.87	25,685	100.00
Frances Baard	5,041	69.99	2,162	30.01	7,203	100.00
Total	38,772	74.01	13,618	25.99	52,390	100.00

Source: Own calculation from Labour Force Survey 2007

Table 9 illustrates that the majority (74.01%) of the work-force is male, and in the Pixley ka Seme district the distribution amongst gender is the most unequal (91.7% males). The Siyanda districy have the most agricultural workers (25 685 workers) and the Kgalagadi the least (3 568 workers).

3.4.1.　Employment over time

Employment for the Northern Cape agricultural sector has been in the limelight the past few years due to reports stating the steady decline within the sector. According to Statistics South Africa the definition of an agriculture worker is if (s)he claims that the main industry that (s)he works in is that of Agriculture, Fishery and Hunting, or if the main occupation is skilled agriculture regardless the industry. The industry Agriculture, Fishery and Hunting was evaluated, and workers of only agricultural activities were used in this report. The following figure was obtained from the data:
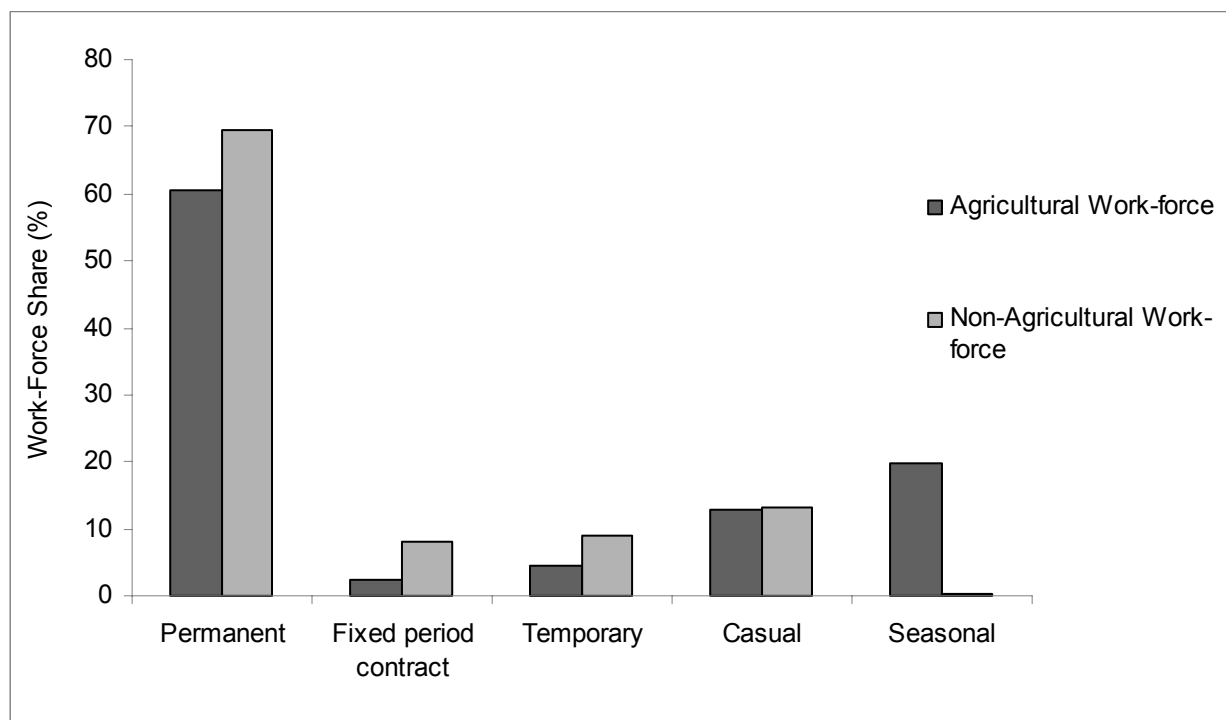
Figure 8: Agricultural Employment figures from 2000 to 2007
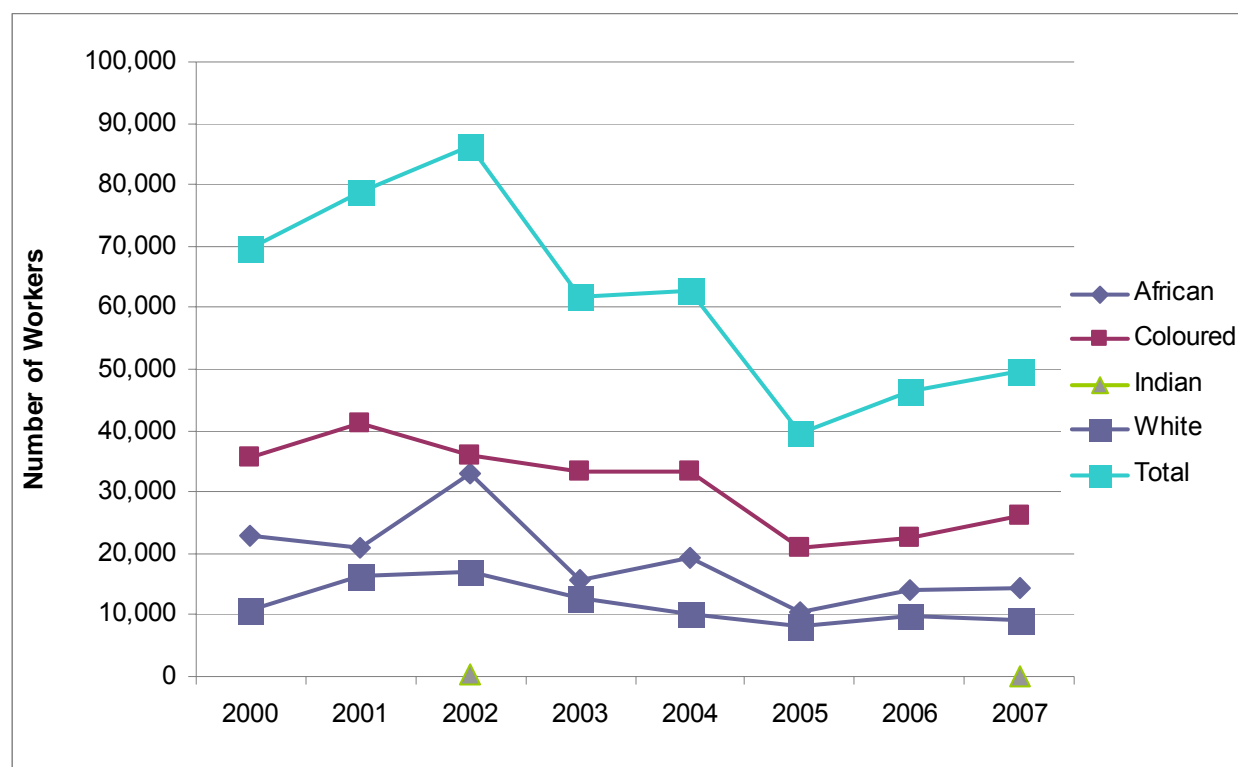
Source: Own calculation from Labour Force Survey 2000-2007

It can be observed in Figure 8 that there is a decreasing trend in total employment from 2002 until 2005, where after it started increasing. Employment among Africans and Coloureds showed an increase since 2005, but employment for all population groups are at lower levels in 2007 compared to 2000. The reason for the decline is a matter for further investigation.

3.4.2.   Employment status

The Labour Force Survey asks various work-related questions to employed respondents, one being that of the terms of employment. Respondents had to classify whether their job was permanent, a fixed period contract, temporary, casual or seasonal. The following results in Figure 9 were obtained for 2007 while Figure 10 indicates the period 2000-2007:

Figure 9: Work status for the Northern Cape work-force in 2007

Source: Own calculation from Labour Force Survey 2007

Figure 9 shows that the non-agricultural work force has a larger share of permanent employment compared to the agricultural work-force (69.38% compared to 60.46%). Also notable is the fact that seasonal workers are found predominantly in the agricultural work-force (19.75%) as the non-agricultural work-force has almost no seasonal employees. The fixed period contract workers in the agricultural work-force are small, while the casual workers can be found in both sectors.

The distribution in the work status from 2000 to 2007 for the agricultural work-force is shown in Figure 10. The figure shows a marked fluctuation in the distribution of all labour types over the years, but the share of permanent employees decreasing from 84.79% in 2003 to 60.46% in 2007.

Figure 10: Work status over time
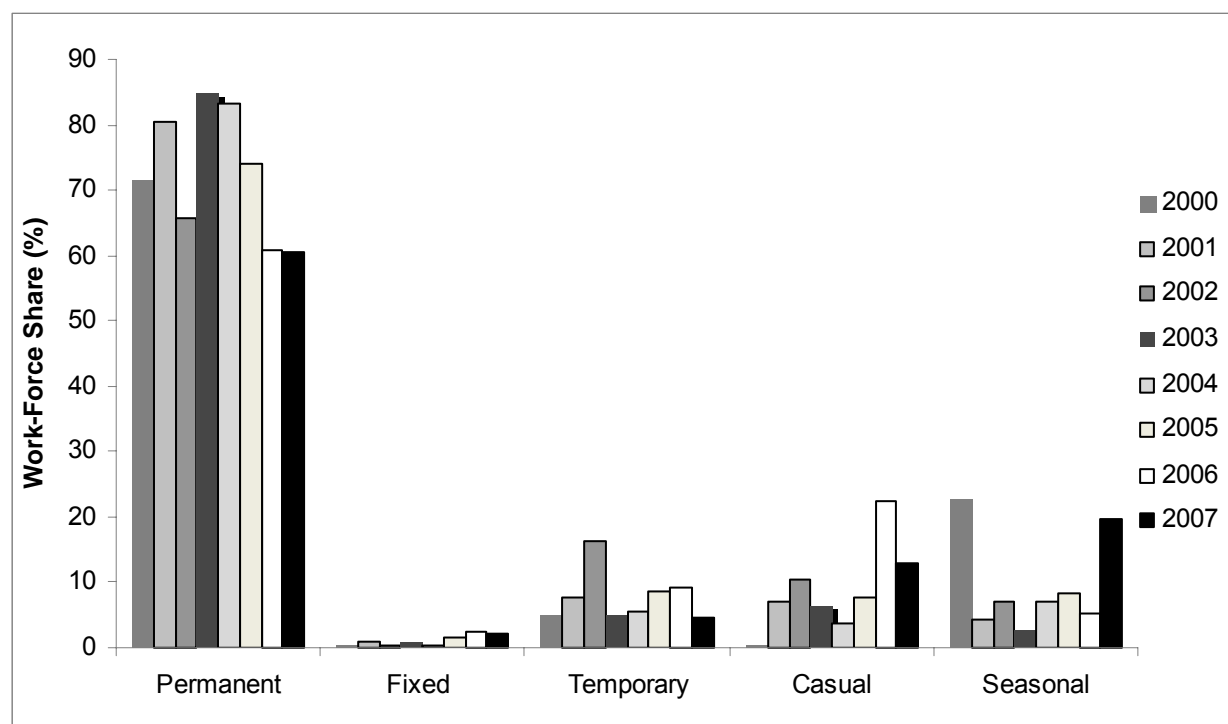
Source: Own calculation from Labour Force Survey 2000-2007

3.5.   Characteristics of Northern Cape agricultural work-force

3.5.1.   Age structure

Comparing the agricultural work-force with the non-agricultural work-force (thus those in other industries), Figure 11 was obtained.

Figure 11: Age structure of agricultural and non-agricultural work-force in the Northern Cape
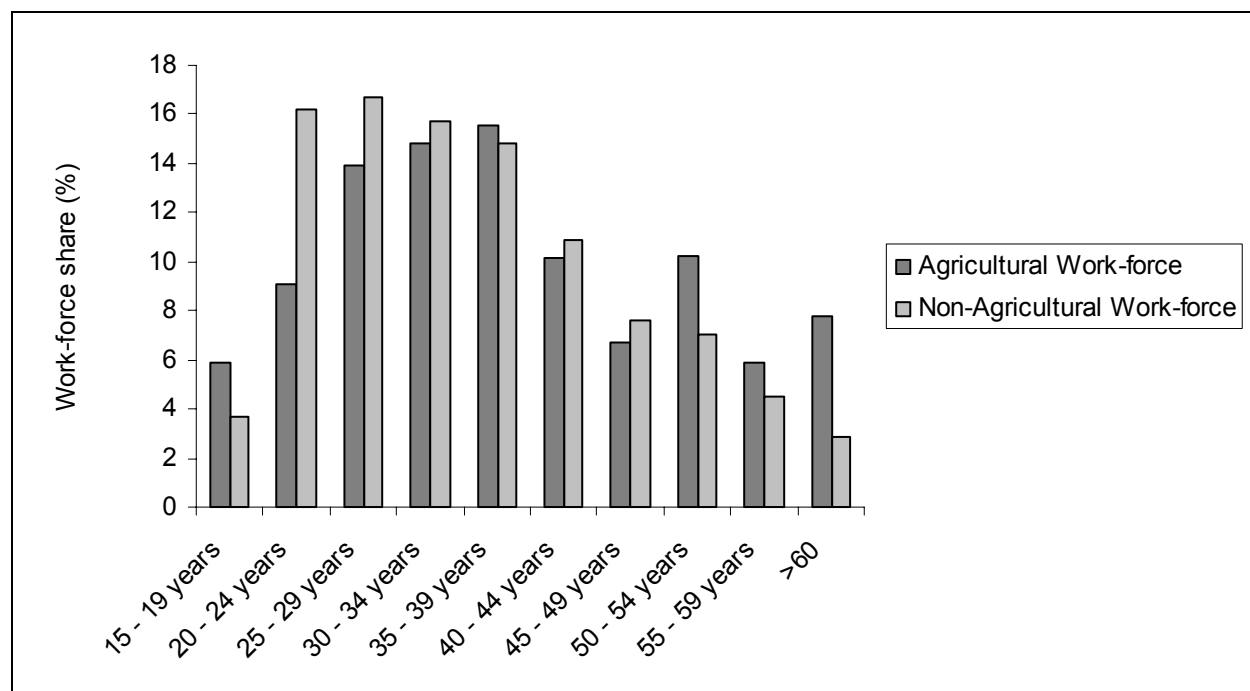
Source: Own calculation from Labour Force Survey 2007

A different pattern can be observed between the two work-forces, with the greatest share of the non-agricultural work-force aged between 25 and 29 years, whilst the agricultural work-force only peaks around ages 35 to 39. Focusing on the older work-force (60 and up), the agricultural work-force have a larger share of workers than the non-agricultural work-force (7.81% compared to 2.9%). The share of work-force between ages 20 and 24 years also differs substantially between non-agriculture (15.79%) and agriculture (5.91%).

3.5.2.   Location and occupation

The agricultural workers also indicated where the location is of their work. As expected, the majority (90.4%) work on a farm. The second most common place where agricultural activities take place is inside a formal business (factory or shop) (6.66%) and the least common is on at a service outlet (0.6%). Table 10 present the full results, including the number and share.

Table 10: Location of Northern Cape agricultural work-force

	Number	Share %
In the owner's home/On the owner's farm	45,728	90.4
In someone else's home / Private household	567	1.12
Inside a formal business premises such as factory or shop	3,369	6.66
At a service outlet such as a shop, school, post office etc	306	0.6
Other	353	0.7
Unspecified	262	0.52
Total	50,585	100

Source: Own calculation from Labour Force Survey 2007

The occupation of agricultural workers, as classified by Statistics South Africa, is expressed in Table 11. As can be seen through Table 11, the elementary occupation dominates (61.75%), while service workers and shop and sales workers are in the minority (0.2%). It can be seen that 20.69% of workers in the agricultural sector in the Northern Cape is classified as skilled agricultural workers.

Table 11: Occupation of Northern Cape agricultural work-force

|	Number	Share %
Legislators, senior officials and managers	3,218	6.39
Professionals	454	0.9
Clerks	1,031	2.05
Service workers and shop and market sales	103	0.2
Skilled agricultural and fishery worker	10,421	20.69
Craft and related trade workers	957	1.9
Plant and machinery operators and assemblers	3,076	6.11
Elementary occupations	31,098	61.75
Total	50,358	100

Source: Own calculation from Labour Force Survey 2007

3.5.3.   *Skills level*

The occupation of workers is an indicator of the skills level of the individual. Workers working in a legislative, senior official, manager or professional occupation are classified as skilled workers by Statistics South Africa. Semi-skilled workers are technical and associated professionals, clerks, and service and sales workers. The rest, skilled agricultural and fishery workers, craft workers, plant and machine operators and assemblers, elementary occupation and domestic workers, are classified as unskilled labour.

The subsequent figures were obtained for the skills level in 2007 of every population group in the non-agricultural sector:

**Figure 12: Skills level of the Northern Cape non-agricultural work-force in 2007**
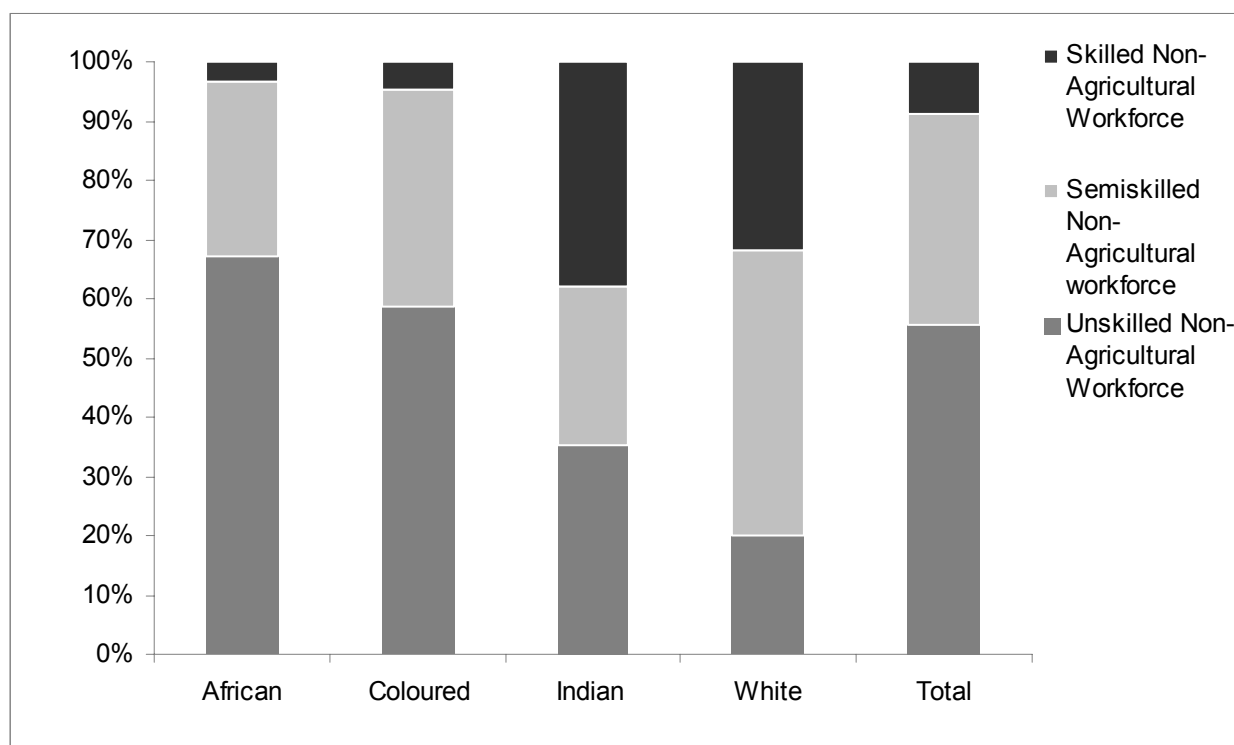
Source: Own calculation from Labour Force Survey 2007

The skill levels for the Northern Cape non-agricultural work-force in 2007 is shown in Figure 12. From the figure, majority of the Africans and the Coloured workers are unskilled compared to the White and the Indian workers. There is more or less even distribution of semi-skilled labour force among all the population groups.

In the agricultural work-force Africans and the Coloureds are largely unskilled (99.07% and 97.07%) compared to their White counterparts (57.52%) as seen in Figure 13.
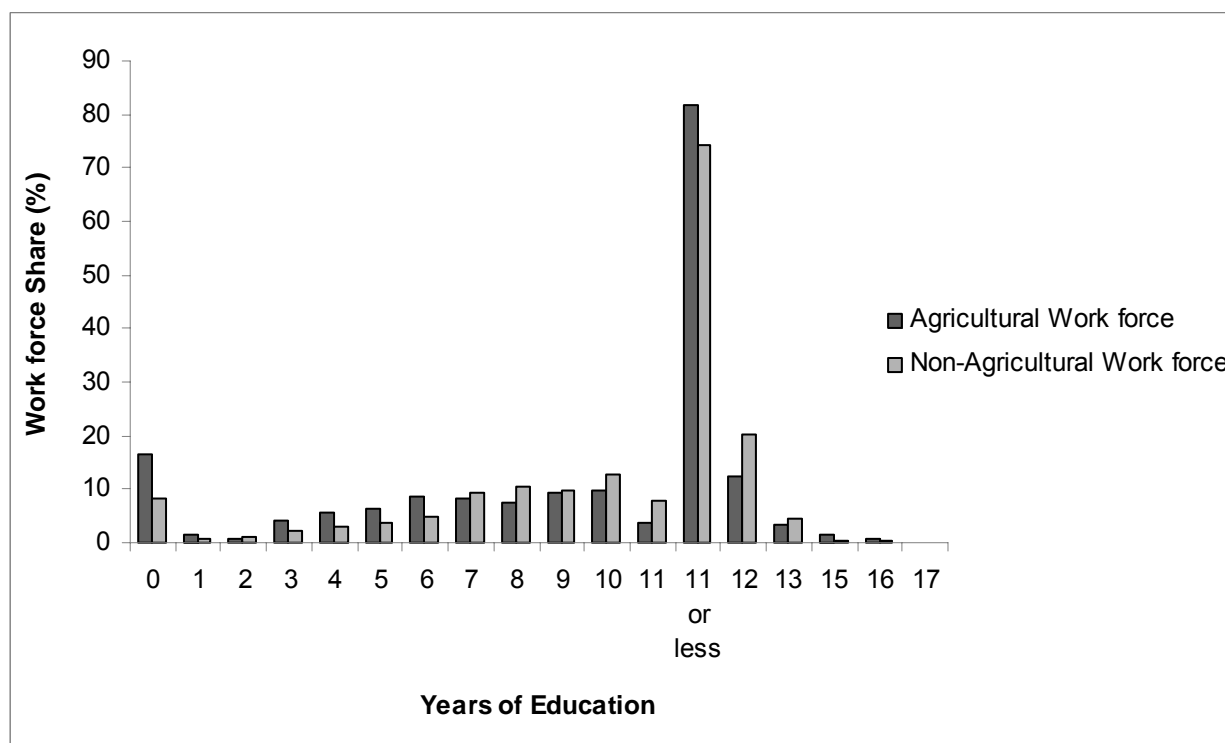
Figure 13: Skills level of the Northern Cape agricultural work-force
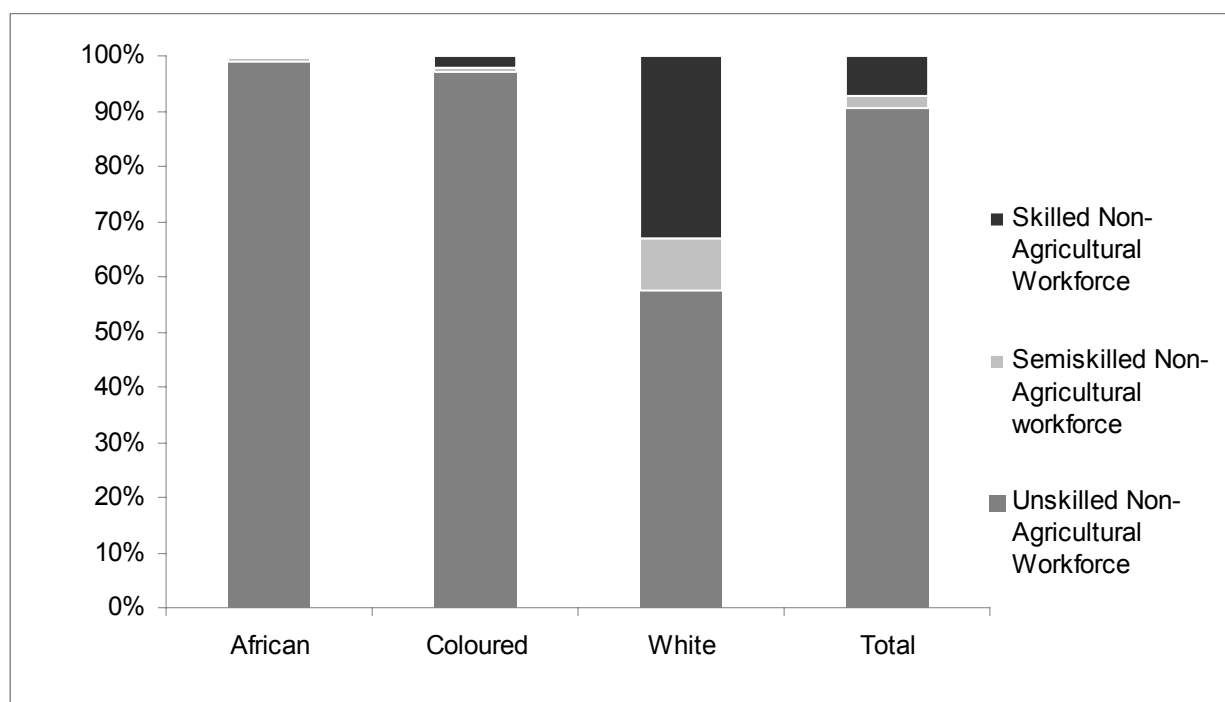
Source: Own calculation from Labour Force Survey 2007

Examining the education level of agricultural workers and non-agricultural workers, the following bar graph (Figure 14) contains the information:

Figure 14: Highest education received for agricultural and non-agricultural workers
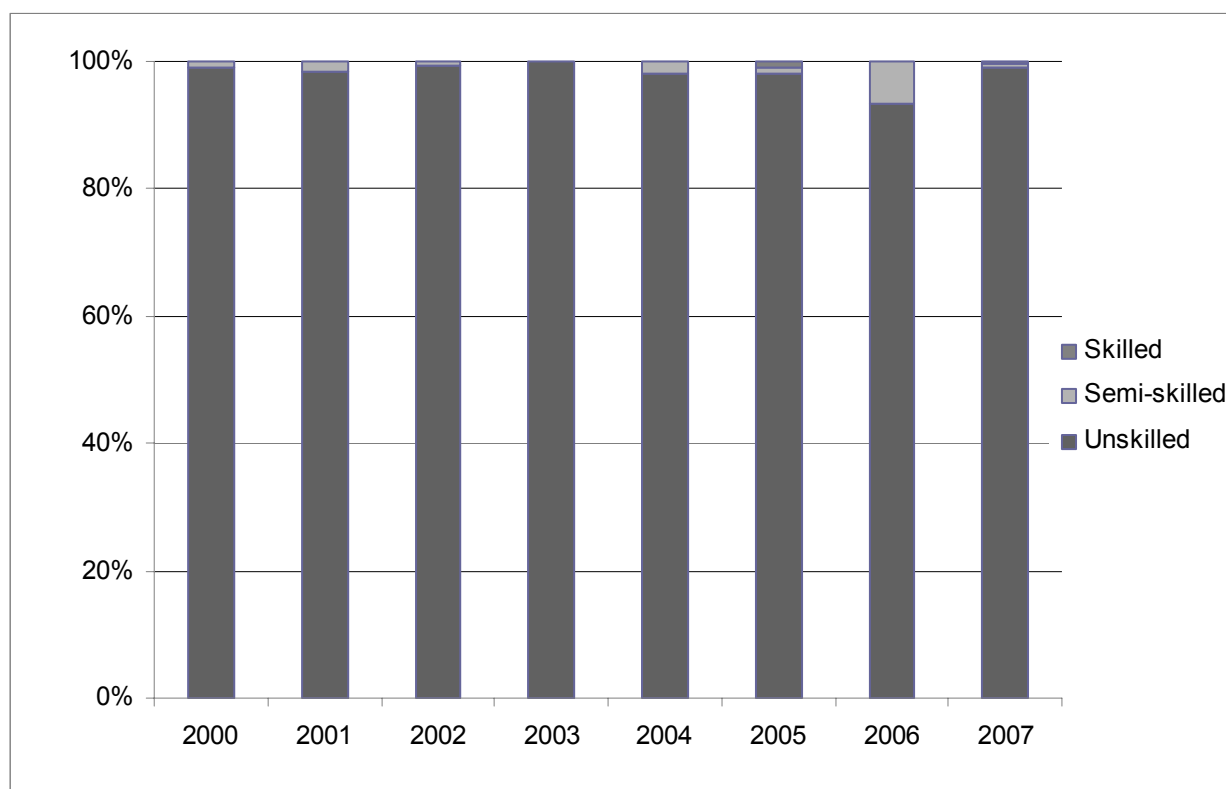

Source: Own calculation from Labour Force Survey 2007

The graph clearly shows that the majority of agricultural workers do not have a matric qualification (82%), although some received high school education. Only a small portion received more than 12 years of education (5.81%). The non-agricultural work-force has a higher share of matriculant workers (20.12%). This clearly indicates that the agricultural work-force has less formal education than the non-agricultural work-force.

Looking at the skills level trend through years 2000 till 2007, the subsequent figures illustrate each population group's skills:

Figure 15: Skills level for Africans in the agricultural work-force
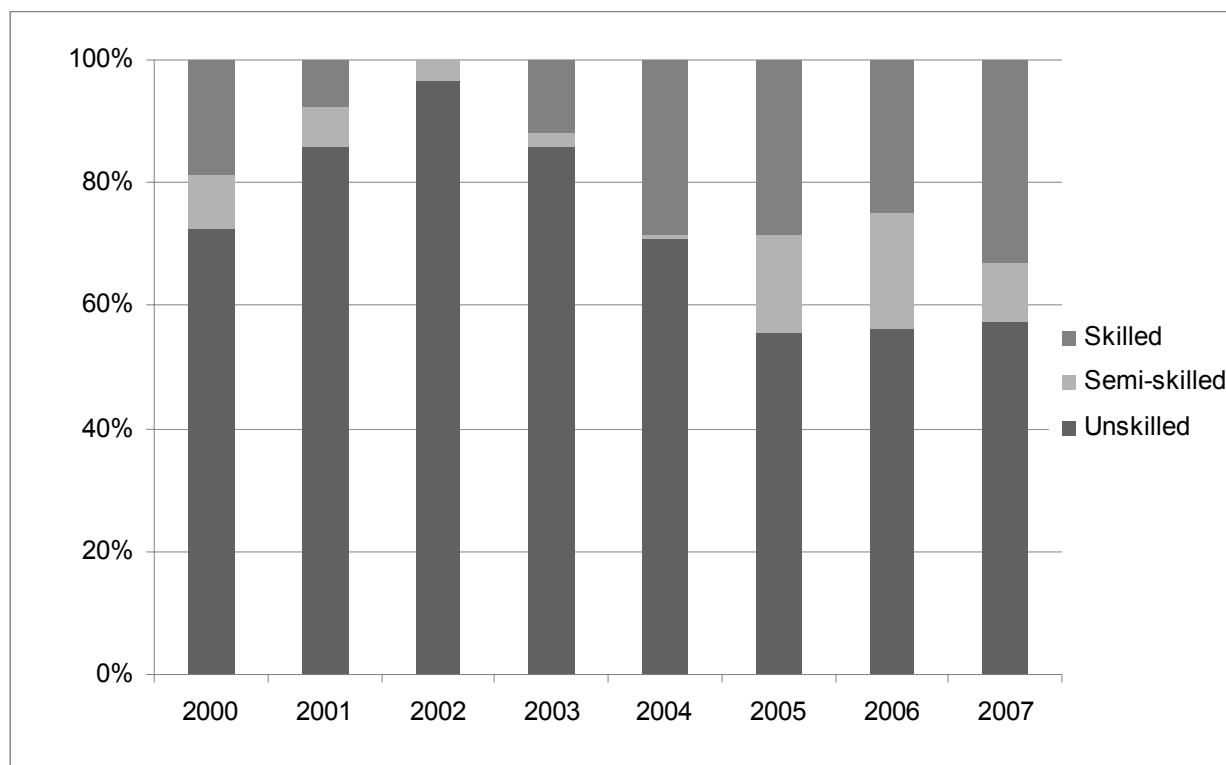

Source: Own calculation from Labour Force Survey 2000-2007

The skills level of the African population group did not change significantly compared from 2000 to 2007 (Figure 15). The majority of workers are unskilled, without any increase in the other two levels. This is a major source of concern, indicating that the African agricultural workers remain unskilled.

Figure 16: Skills level of the Coloured agricultural workers
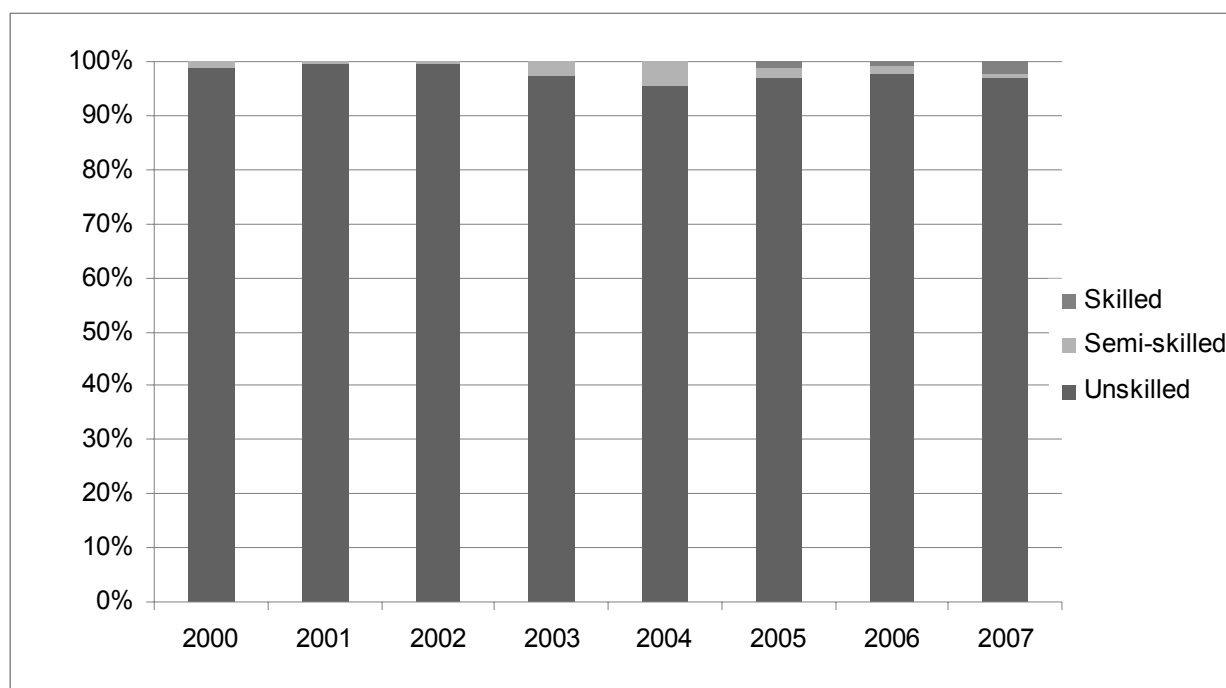
Source: Own calculation from Labour Force Survey 2000-2007

The skills level of the Coloured population in Figure 16 does not differ much from the African population's skills level, but there is a slight share increase in skilled (0% to 2.18%) through time. This indicates that a minority did acquire more skills to move towards more specialised work.

Figure 17: Skills level of the White agricultural work-force

Source: Own calculation from Labour Force Survey 2000-2007

In Figure 17 the White work-force has a dramatically different composition of skills than the other two population groups. It differs from year to year, but the share of skilled workers increased with time (18.74% to 33.12%), while the unskilled declined (72.56% to 57.52%).

There is a definite skills gap between race groups in the Northern Cape agricultural sector, with the Whites as the only notable skilled group. According to the National Scarce Skills list of 2007 (Department of Labour), farm managers are rated as one of the most scarce skills in South Africa, while agricultural technicians, plant operators, crop farm workers and livestock farm workers also appear on the list. This indicates that there is definitely a need for skilled agricultural workers.
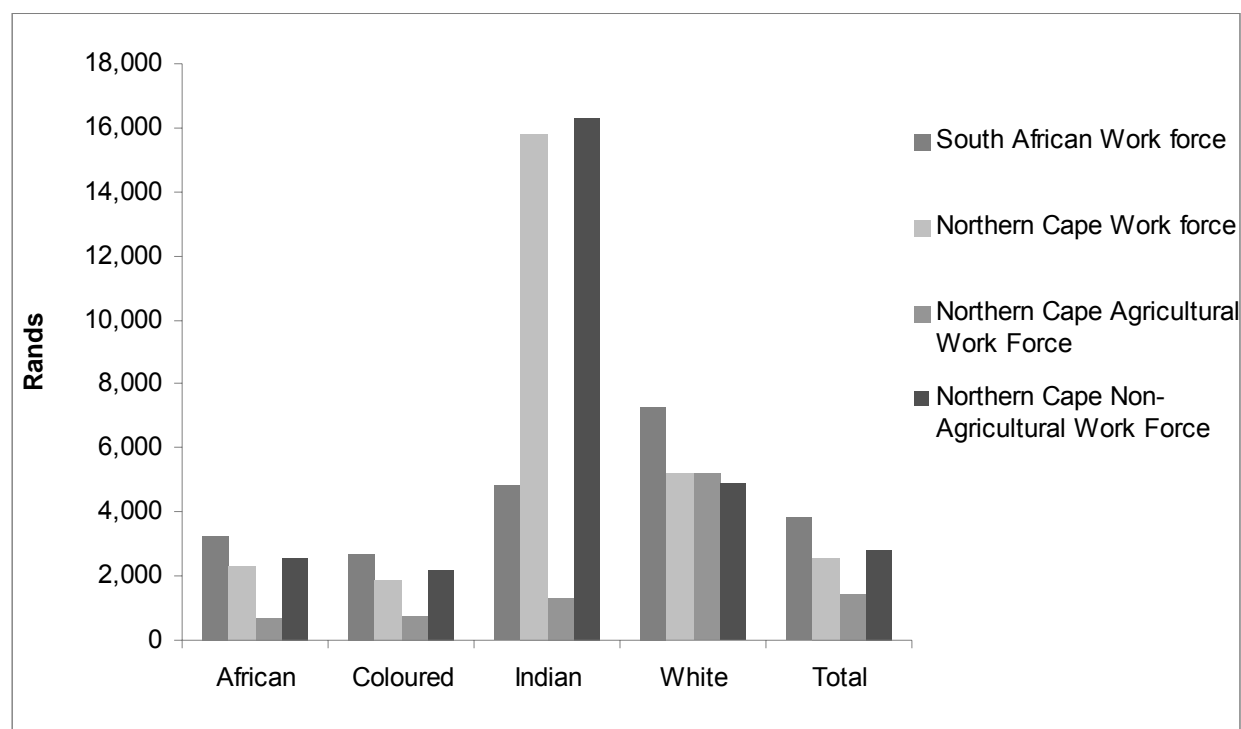
4.   Income

4.1.   South Africa and Northern Cape

Respondents were asked about their income, and as explained previously, it was reported in either actual values or income bands. A value was dictated to each band by using the Interval Regression method as indicated in 2.3.2. Three different reporting measures were used to seek variation and to verify for consistency. The first figure reports the results for the earnings for the working individual. The second figure represents the per capita household earnings while the last figure embodies the median incomes for working individuals. The first and second figures'

income is an average and all three were adjusted for the consumer price index (CPI) making it real incomes. Therefore all values are in 2000 prices to have consistency when comparing from 2000 to 2007.

The subsequent figures represent the results of the analysis in 2007. It must be remembered that earnings used were total salary of main job, therefore excluding any remittances, social grants or payments in kind. Home consumption from home production is also excluded. The real monthly income for South Africa and Northern Cape, Northern Cape agricultural and non-agricultural work-force are compared in Figure 18. From the figure, the real monthly income for African and Coloureds is the lowest for all the compared work-forces (R3 284 and R2 720 respectively for South Africa). The income for the Indian population in the Northern Cape and non-agricultural work-force is high compared to other population groups (R15 788).

Figure 18: Real mean monthly income from main source by race for 2007
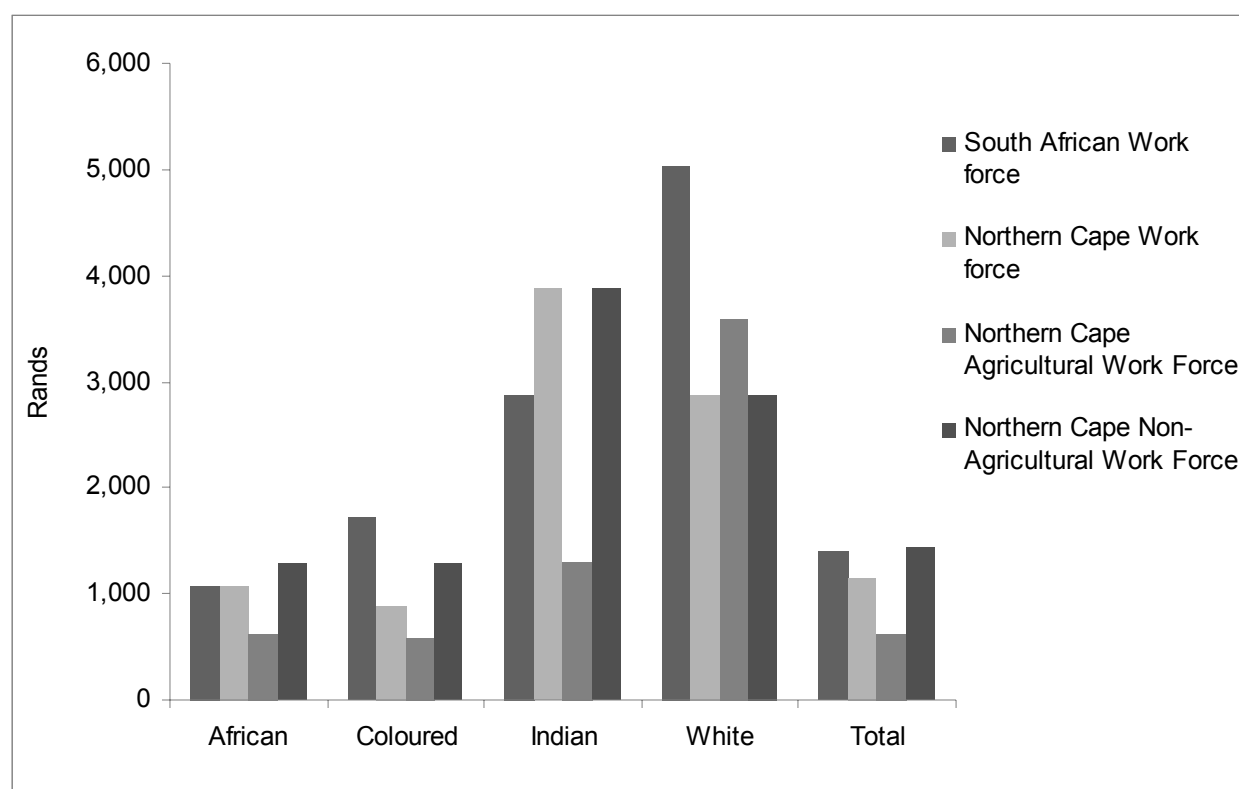

Source: Own calculation from Labour Force Survey 2007

The mean monthly real household income per capita by race for 2007 is shown in Figure 19. It can be seen from the figure that the agricultural sector's mean household income per capita is lower for Africans and Coloureds compared to Whites and Indians.

Figure 19: Mean monthly real household income per capita by race for 2007
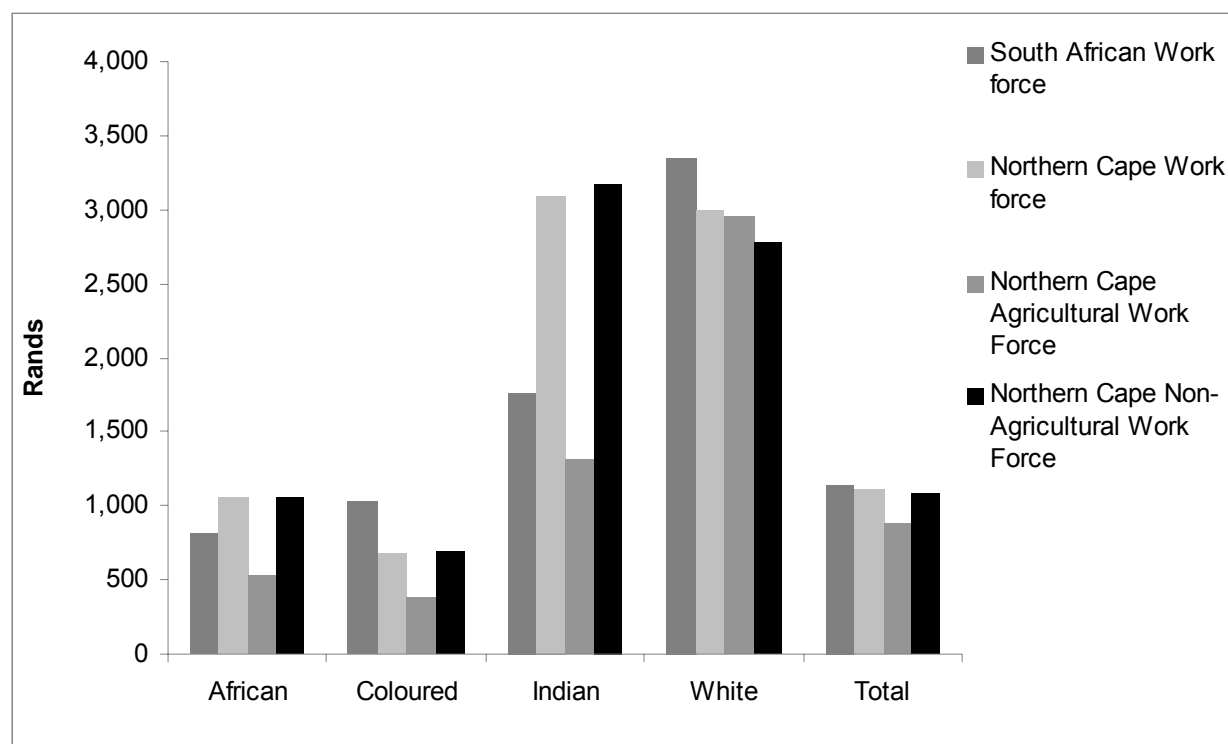
Source: Own calculation from Labour Force Survey 2007

In reporting the real mean monthly incomes, cognisance is taken of the fact that outlying observations can bias results, to mitigate this, the median of the sample are used. The median represents the 50th percentile, meaning 50% of the individuals receive equal or less than the mentioned income. The median incomes are illustrated in Figure 20. The pattern remains the same, with Whites earning the most and Africans earning the least. White Agricultural households have the highest median income, but the Northern Cape overall is doing financially worse than South Africa.

Figure 20: Monthly median income for individuals by race for 2007

Source: Own calculation from Labour Force Survey 2007

4.2.   Northern Cape agricultural work-force

Real monthly mean income, the real mean household income per capita and the monthly median incomes from 2000 to 2007 are shown in Figure 21, Figure 22 and Figure 23 respectively.

Figure 21: Real monthly mean income for individuals working in agriculture from 2000
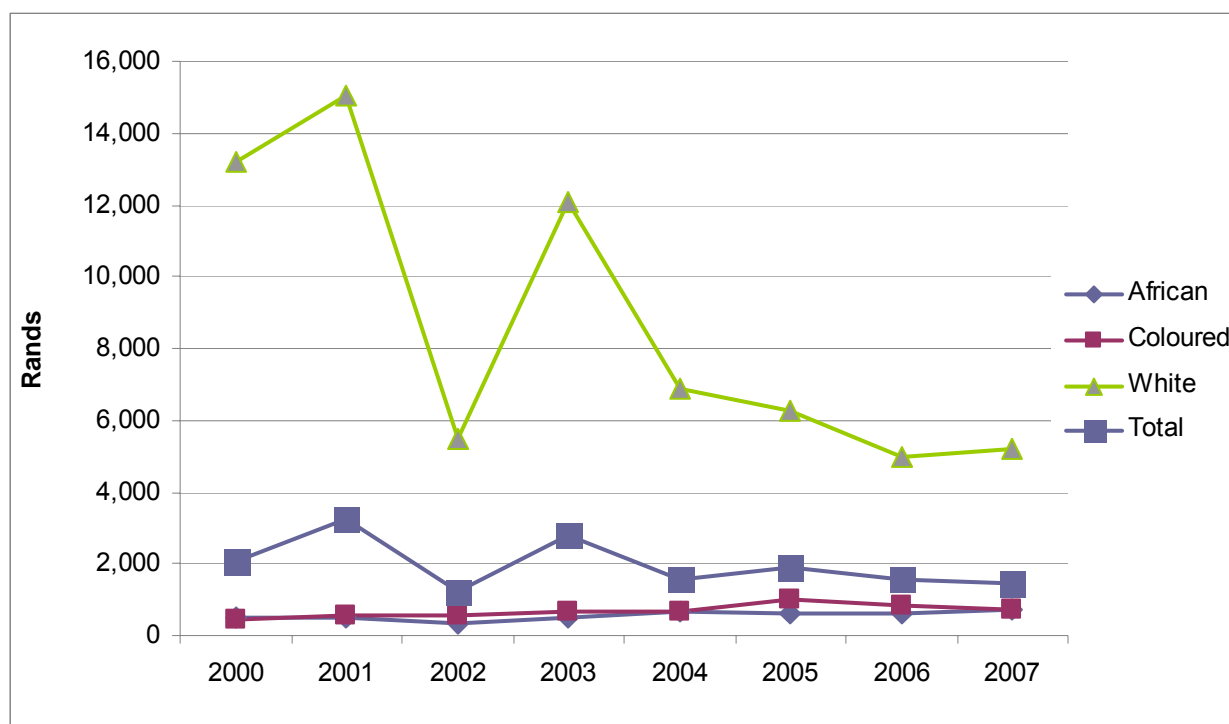
Source: Own calculation from Labour Force Survey 2000-2007

Above figure (Figure 21) clearly indicates the difference between the White population's mean incomes compared to that of the African population. The Coloured and Indian population's average income stay relatively constant over time, whereas the White's income decreased substantially in 2002, and since 2004 it became less volatile. The total income also stays relatively constant since 2005.

Figure 22: Real mean household income per capita for all agricultural households since 2000
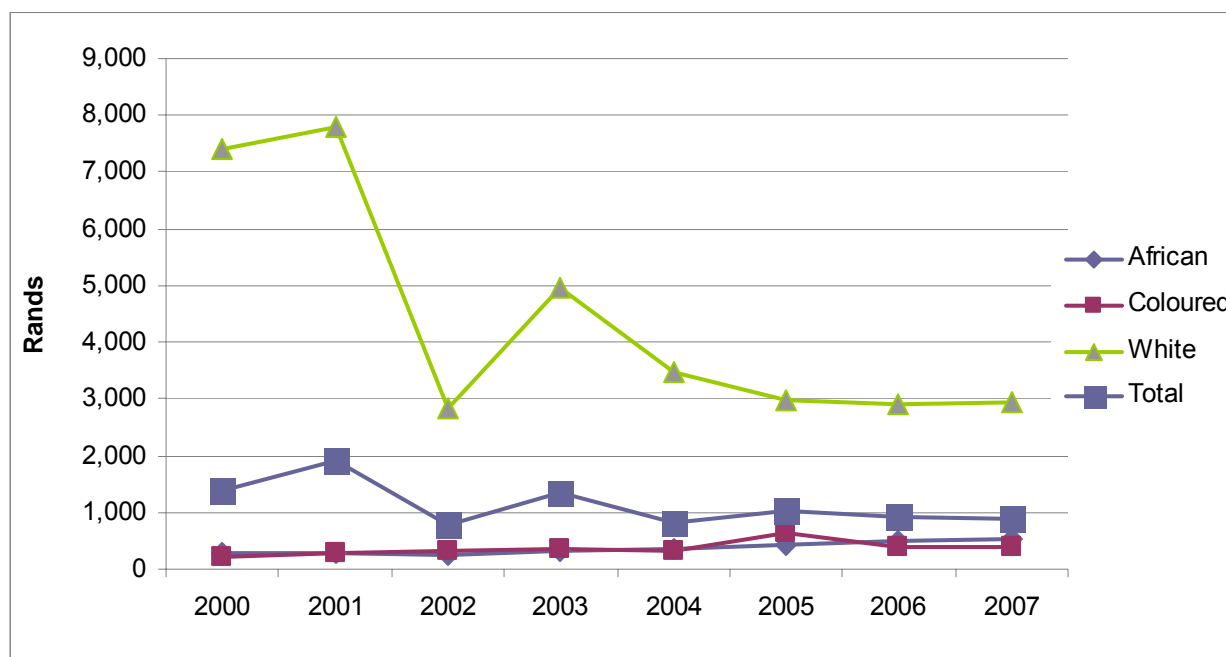
Source: Own calculation from Labour Force Survey 2000-2007

The household earnings per capita are presented above (Figure 22) for all agricultural households, thus all households that have a member/members in the agricultural sector. The figure signifies a similar trend than the individual earnings profile. This indicates that households are very much dependent on the agricultural individual earnings within the household.

Figure 23: Monthly median incomes of individuals in agriculture since 2000
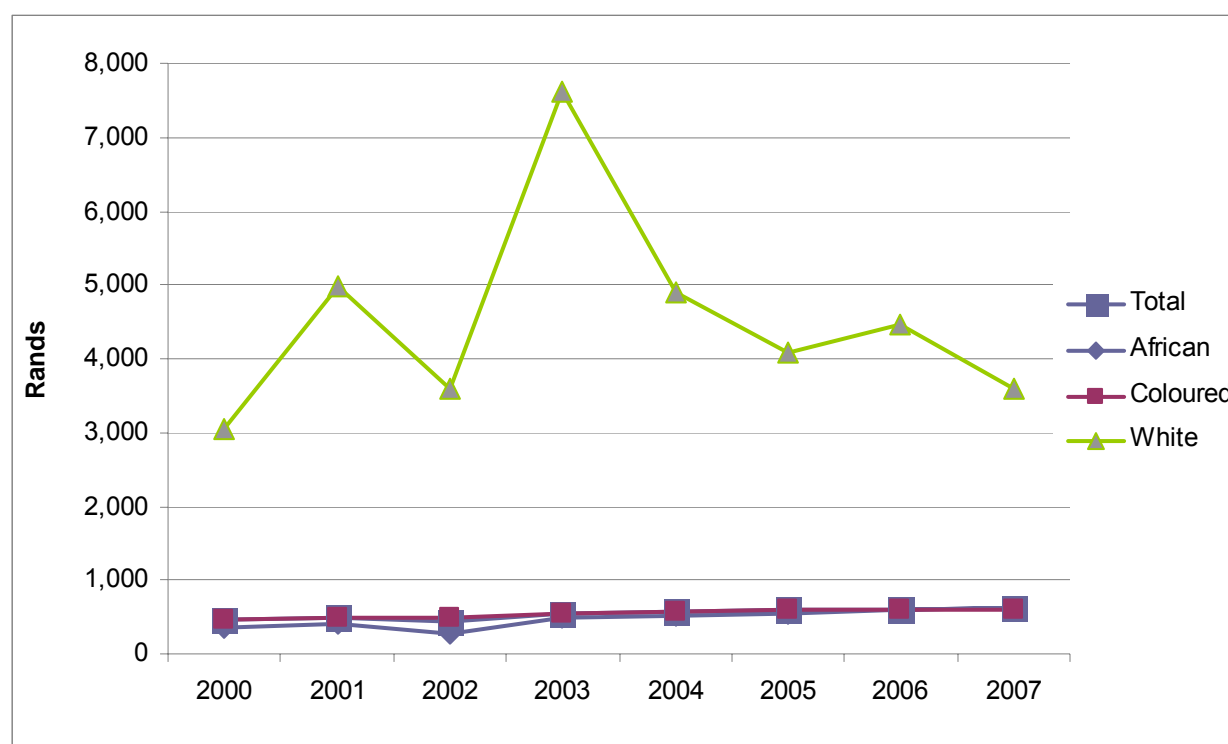
Source: Own calculation from Labour Force Survey 2000-2007

The trend for Africans and the total stays the same within the median income (Figure 23) as for mean income, but the White median income varies year on year. The total median income is lower and more stable over time compared to the other income profiles. The conclusion from above three figures is that there is a significant difference between the incomes of the White Agricultural workers/households and African workers/households.

4.2.1.   *Beneficiaries from agricultural activities*

Considering the number of beneficiaries of the agricultural workers, the following table (Table 12) and figures (Figure 24 and Figure 25) were obtained. Beneficiaries were defined as the number of people in a household with an agricultural employee amongst them. But there are two different reporting measures. The first measures all beneficiaries, thus all individuals that get affected by agricultural activities, meaning a household with four members, all employed, will be beneficiaries if only one works in the agricultural sector. The second reporting measure is that of beneficiaries living in agricultural households where agricultural income is more than 50% of household income, thus as reported in Section 2.2.1.

Table 12: Number of beneficiaries in 2007

	All		More than 50%	
	Number	**Share**	**Number**	**Share**
African	42,621	21.40	25,885	30.25
Coloured	120,149	60.34	44,846	52.40
White	35,571	17.86	14,353	16.77
Indian	794	0.40	498	0.58
Total	199,135	100.00	85,582	100.00

Source: Own calculation from Labour Force Survey 2007

Table 12 indicates that the Coloured population have the highest number of beneficiaries in the Northern Cape agricultural sector, dominating by 60.34% and 52.4% respectively. Investigating the trend over years in Figure 24, the total number of beneficiaries and the Coloured households follow a similar trend; an overall decrease since 2000 until 2005, where after it started to increase. The number of White beneficiaries increase over time since 2000 (16 521 to 20 326) whilst the number of Coloured beneficiaries decrease from 99 427 to 86 898.

Figure 24: Number of all beneficiaries from 2000 till 2007
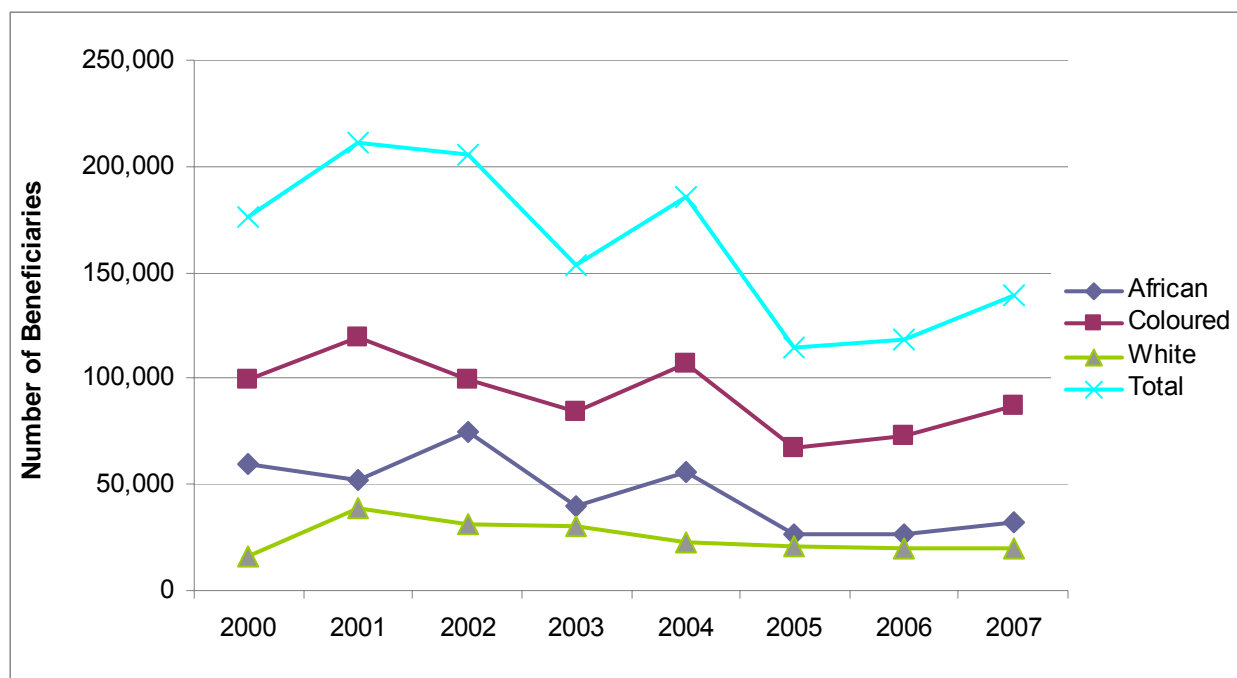
Source: Own calculation from Labour Force Survey 2000-2007

Taking incomes from other industries into consideration, Figure 25 indicates the number of beneficiaries in households that obtain more than half of their household income from

agricultural activities. The trend over time follows the same path as for all beneficiaries, declining over time (from 123 153 to 98 012 in total). Again the Coloured households have the most beneficiaries (54 930 in 2007).

Figure 25: Number of beneficiaries in agricultural households with more than 50% income share
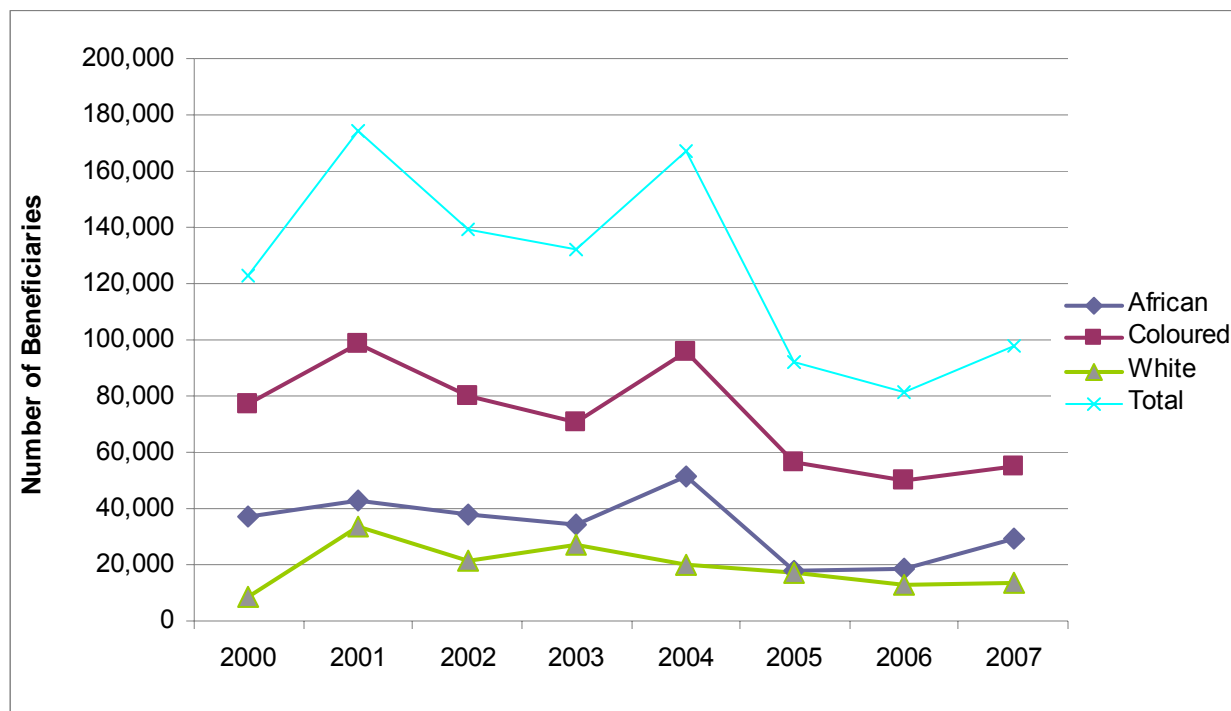
Source: Own calculation from Labour Force Survey 2000-2007

In general, the total number of beneficiaries, in both reporting measures, declined compared to 2000, although there have been increases from 2006 to 2007.

5.   Poverty indices of Northern Cape agriculture

5.1.   Theory

Poverty, as defined by the *Concise Oxford Dictionary,* "is the state of lacking adequate means to live comfortably and the want of things or needs indispensable to life (Govender, Kambaran, Patchett, Ruddle, Torr and Van Zyl 2007:118). A welfare indictor, usually either income or expenditure, is used to rank individuals or households.

Chambers (1988) claims that there are five dimensions of poverty namely:

1. 'Poverty proper' where a lack of adequate income or assets for generation of income are identified;

2. Physical weakness as a result of under-nutrition, disability or sickness;

3. Isolation, physical or social, because of location, access to goods and services;

4. Vulnerability to become more poor and risk to crisis;

5. Powerlessness within the existing economic, political, cultural and social sphere.

   The first step regarding poverty analysis is to decide on a poverty (living) indicator to use, example income or expenditure, and which poverty dimension will be analysed. Next is to decide on a poverty line which separates the poor and non-poor. Woolard and Leibbrandt (1999:8) state that the point where the line is drawn is usually arbitrary. This can mean that one individual might be classified as poor; while another earning R1 more is qualified as not poor. But a poverty line needs to be drawn to analyse the nature of poverty.

   Analysis of the poor usually entails measures of poverty. One of the most common measures to use is the Foster-Greer-Thorbecke class of poverty. The measure can be written as

$$P_\alpha = \frac{1}{n} \sum_{i=1}^{q} \left[\frac{z - y_1}{z} \right]^\alpha \qquad \text{for } \alpha \geq 0 \qquad (5)$$

Where *z* represents the poverty line, y_1 is the living indicator (i.e. income or expenditure) and *α* symbolizes the aversion to poverty parameter. By adjusting *α*, different classes of poverty can be identified. The headcount ratio, which gives the number of people living under the poverty line, is represented by α=0. Adjusting the value to 1, a poverty gap index is achieved, which indicates the depth of poverty; thus the average inequality amongst the poor. The last index is α=2, which illustrates the severity of poverty. This option gives the most poor a higher value (weight), and therefore the severity of the poverty gap can be observed. All three measures are expressed in percentage terms, hence α=0 will offer the percentage number of people living under the poverty line, α=1 will provide the inequality for those living under the poverty line, thus between the most poor and the least poor in percentage terms where 1 is equal to perfect inequality and 0 perfect equality. The last measure, α=2, can be analysed the same as the previous measure, but the poorest weights more.

5.2.   Poverty indicators from Labour Force Surveys

The living indicator used in the analysis of the Labour Force Survey data is that of per capita household earnings. These earnings were adjusted with consumer price index to achieve real earnings (in 2000 prices) over the years. The data was adjusted for per adult equivalent as proposed by die OECD equivalence scale where household size is equivalent to:

   E = 1+0.5(A) + 0.3(K)   (6)

Where a value of 1 is assigned to the first household member, 0.5 to additional adult members (*A)* and 0.3 to each child under the age of 15 (*K)*.

A poverty line of R 322 per adult equivalent per household per month in 2000 basis year terms was used; this poverty line was decided on by the South African Government as the 'official' poverty line. The advantage is that a 'national' poverty line was decided on, but to its disadvantage it cannot be compared with international standards.

The Foster-Greer-Thorbecke class of poverty indices were used, and the following figures illustrate the results obtained in 2007. The total rate for respectively South Africa, Northern Cape and the agricultural households in the Northern Cape is given together with each population group's share towards the total.

**Figure 26: Poverty rate for South Africa and shares of population groups**
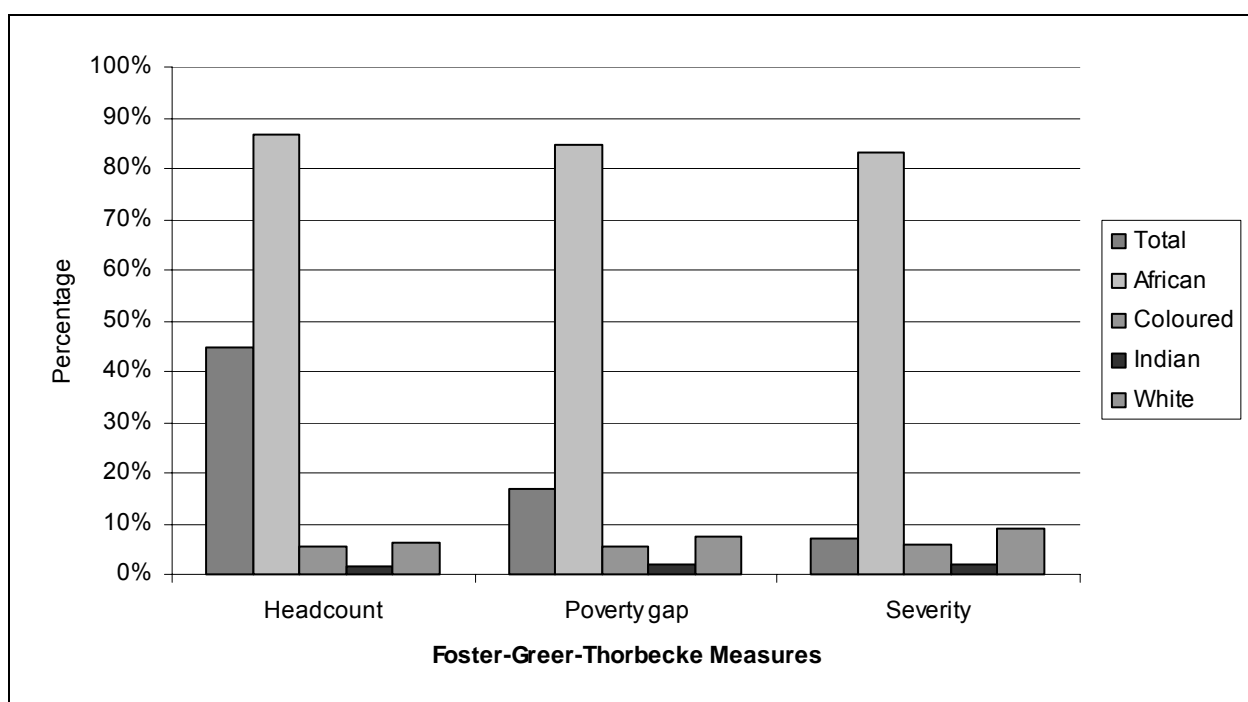
Source: Own calculation from Labour Force Survey 2007

In Figure 26 the total headcount ratio, poverty gap ratio and severity rate of individuals in South Africa are 44.57%, 16.88% and 7.15%. The African population has the highest share in the total for all classes of poverty (86.63%, 84.81% and 83.3%) and the Indians the lowest (1.7%, 1.8% and 1.9%). Thus 86.63% of the poor population is African and 1.7% is Indian according to the headcount ratio. This translates into 21 million people in households earning less than R322 per month per adult equivalent (44.57% of 47 million) with 18 million that are African and 361 164 of the Indian population group. The poverty gap of 16.88% gives an indication of the average inequality between those living below the poverty line, while the

severity index of 7.15% gives and indicates the severity of poverty by given a greater weight to the most poor.

Looking at the Northern Cape in Figure 27, a different trend can be identified. The African population are not dominating the poverty measures as in the national figures; the Coloureds comprise the greatest share of 48% in the headcount poverty ratio and 46% in poverty gap ratio. The total poverty rates for the different measures in the Northern Cape are respectively 41%, 33% and 31%. This corresponds to just over 370 000 people that are living below the poverty line according to headcount ratio.

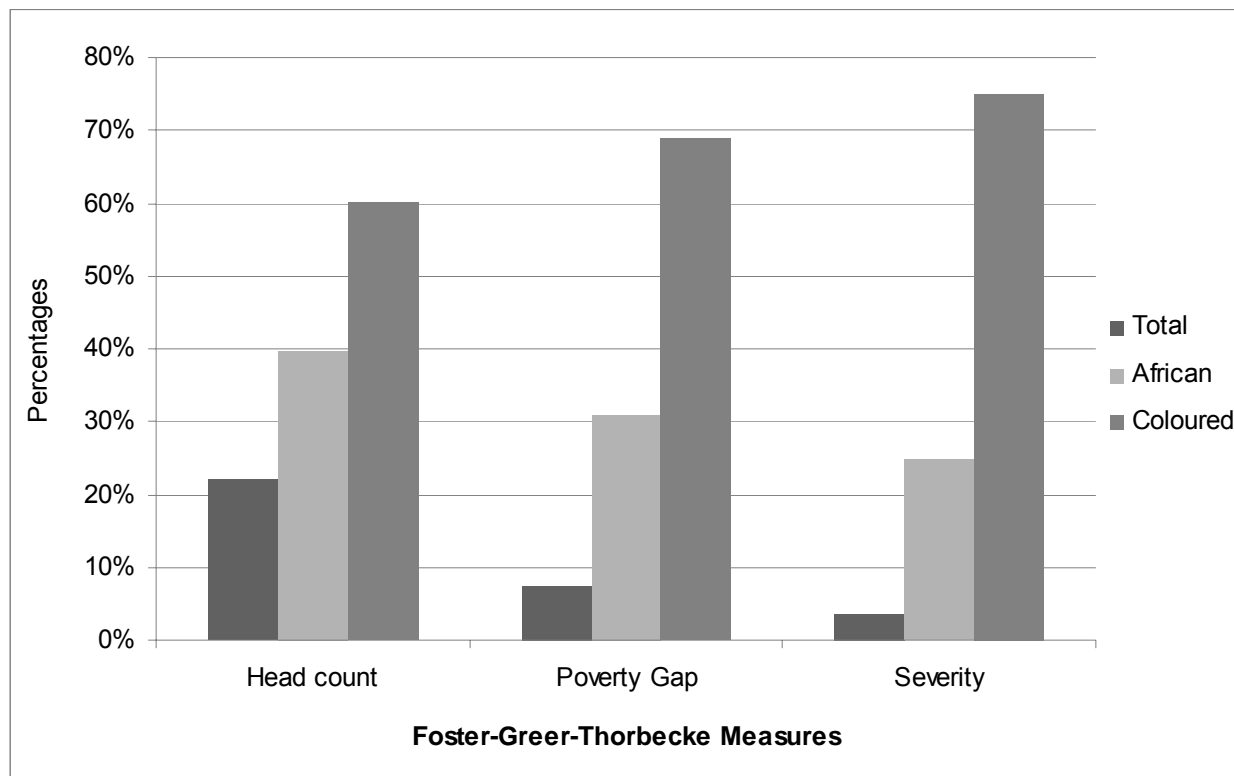**Figure 27: Poverty rate of the Northern Cape and shares of population groups**
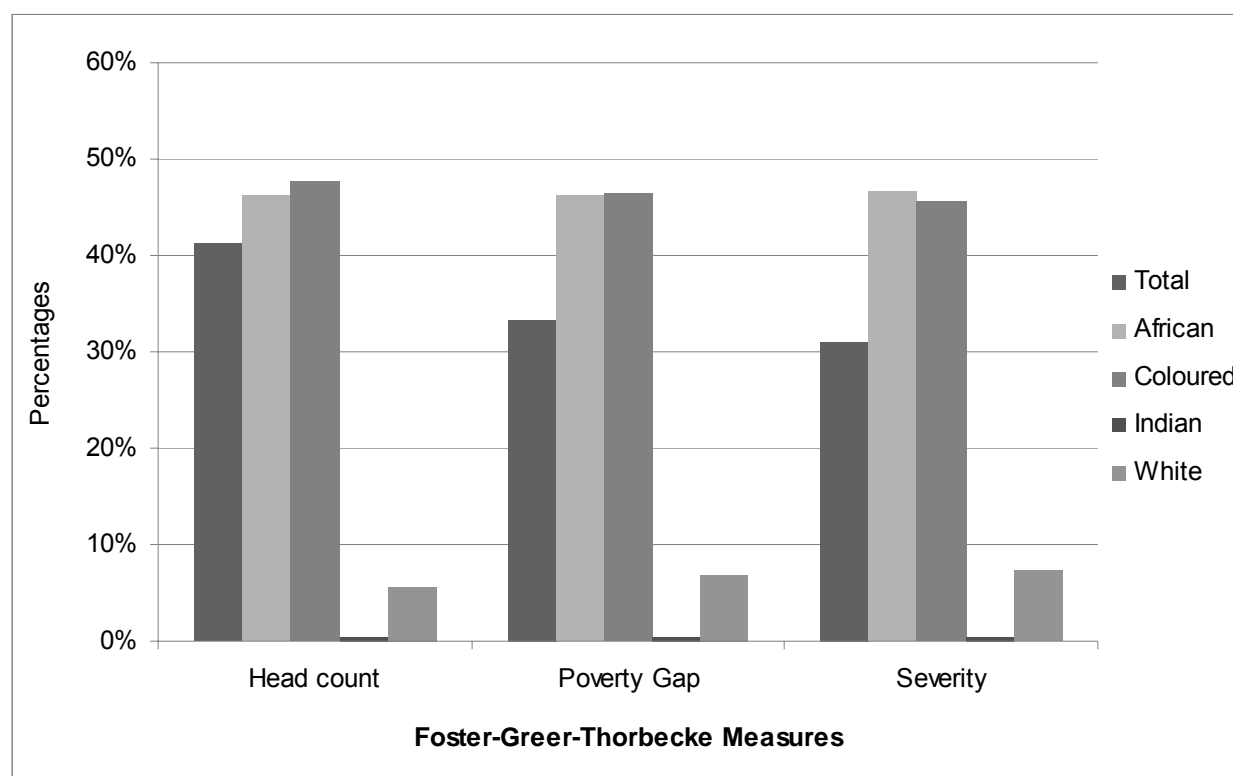
Source: Own calculation from Labour Force Survey 2007

The Northern Cape agricultural households (more than 50% of income from agricultural activities) were also analysed in Figure 28. There are no observations for the White population and the total poverty rates are 22%, 7% and 4% for respective measures. This translates into around 7 243 agricultural households that are living below the poverty line. The highest share of these is the Coloured population with a 60% share in headcount ratio (4 346 households). Their share increase as the poverty measure change from α=0 (headcount) to α=2 (severity). It must be kept in mind that poverty profiles can be lower due to the subsample used. The subsample only takes households which earn between 50 and 100 percent of their income from agricultural activities. Thus all households with zero to 50 percent incomes form agriculture are not

regarded, excluding the households of lower income agricultural workers that contribute less than 50% to the household income.

Figure 28: Poverty rate for the Northern Cape agricultural households and shares of population groups

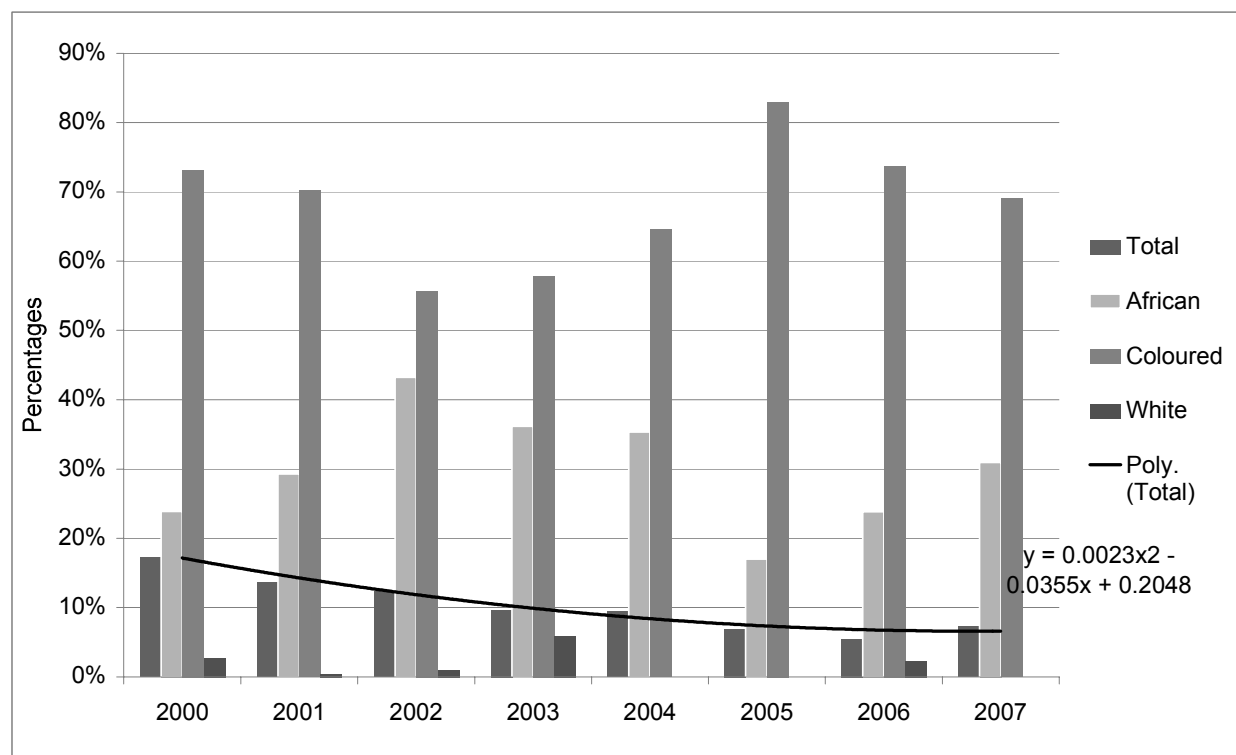Source: Own calculation from Labour Force Survey 2007

Investigating the trend over years (2000 till 2007) of the Northern Cape agricultural households, the subsequent figures were obtained:

Figure 29: Poverty headcount by year for Northern Cape agricultural households
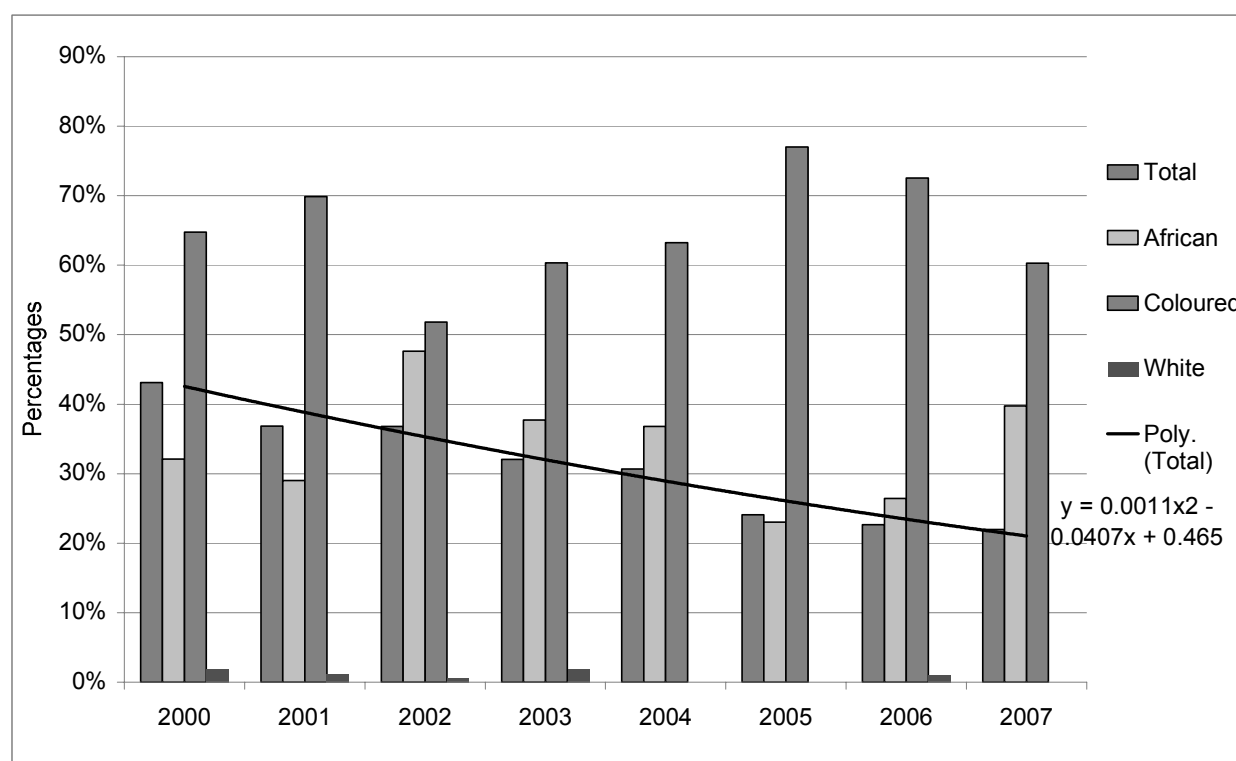
Source: Own calculation from Labour Force Survey 2000-2007

Above figure (Figure 29) indicates the headcount ratio of individuals in the Northern Cape agricultural households and the share of African, Coloured and White households towards the total headcount ratio. It is clear that Coloured individuals contribute the most to overall poverty dominating each year. There is also a decrease in total poverty, as the trend line indicates, ranging from a poverty headcount of 43% to a 22% over time.

The next figure (Figure 30) indicates the poverty gap ratio:

Figure 30: Poverty gap by year for Northern Cape agricultural households

Source: Own calculation from Labour Force Survey 2000-2007

The poverty gap ratios over time indicate that individuals in Coloured households have the highest inequality amongst the poor in the province with the highest share in the poverty gap measurement. The total poverty gap decreased from 17% to 7% over time, but since 2006 the poverty gap started to increase. This signifies the decrease of inequality within the households living below the poverty line before 2006. The Coloured and African households living below R322 per month per adult equivalent are thus more equal resulting in less extreme poverty. The gap between the extremely poor and those living just below the poverty line has decreased until 2006.

Figure 31: The severity of poverty by year for Northern Cape agricultural households

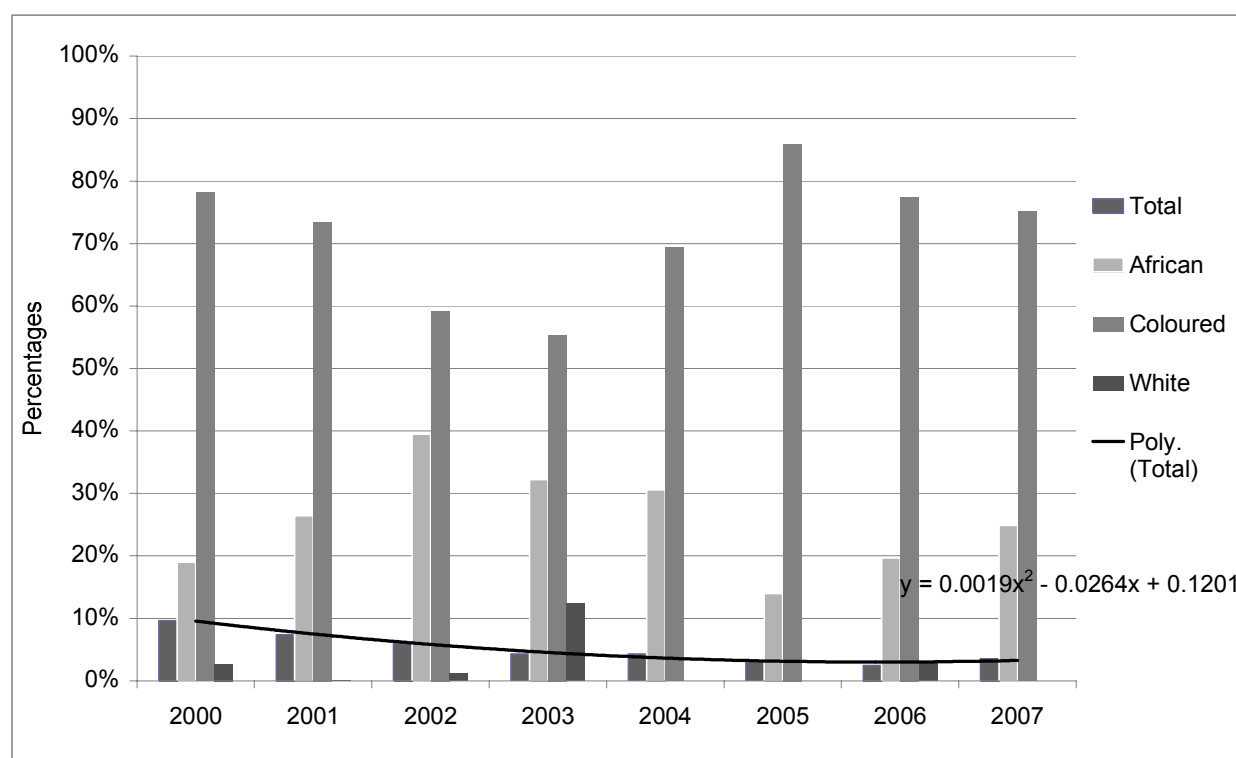
Source: Own calculation from Labour Force Survey 2000-2007

A similar trend in severity of poverty can be seen in Figure 31 as in the poverty gap in the previous figure: the total decreases till 2006 and increases in 2007. Coloured individuals are the dominant population group in this poverty measure. The low poverty gap and severity of poverty in the Northern Cape agricultural households can be connected with inequality in the next section. It will be stated that within group inequality is relatively low compared to between group inequalities. The inequality of poverty (poverty gap) and the severity of poverty will be lower, because all poor individuals are on a relative similar scale. But it must be highlighted that poverty reduction according to all measures did occur through time until 2006 within the Northern Cape agricultural households.

6.   Inequality within the Province

6.1.   Theory

Inequality is regularly measured with regards to income, and represents the distribution of income in a population or population sub-group. The poverty gap described in Section 6 is an example of such an inequality measure within a sub-group, in this case between the poor populations. There are various ways to measure income inequality, although most common is to provide summary statistics of the income distribution (Govender et al. 2007:127). Therefore the share of poorest 10% to the total population's income can be measured. Another measure is that of the Lorenz curve and Gini coefficient. The Lorenz curve plots the cumulative percentage

of households against the cumulative percentage of incomes, creating a cumulative density function. The Gini coefficient ranges from 0 to 1, with 1 being perfectly unequal and 0 perfectly equal. The Gini coefficient is derived from the Lorenz curve. The area between the Lorenz curve and the hypothetical perfect equality line divided by the area underneath the line reflects the Gini coefficient. Another measure is the Theil index which was developed by the econometrician Henri Theil, which can be written as follows:

$$T_T = \frac{1}{n}\sum_{i=1}^{N}(\frac{x_i}{\ddot{x}}*\ln\frac{x_i}{\ddot{x}}) \tag{7}$$

With x_i the income of the *ith* person, N the number of people and $\ddot{x} = \frac{1}{n}\sum_{i=1}^{N}x_1$ the mean income. The first part in the brackets can be seen as the individual's share of aggregate income, and the second part is the individual's income relative to the mean. The Theil index is equal to 0 if there is no income inequality (thus 50:50 distribution), equal to 0.5 if the distribution is 74:26, equal to 1 if it is distributed 82:18, equal to 2 if the distribution is 92:8, and 4 if it is distributed 98:2 (Wikipedia). Thus the higher the Theil, the skewer the income distribution.

6.2. Inequality measures from Labour Force Surveys

Investigating the 2007 data, the following table represents the Gini and Theil inequality measurements by race for South Africa, the Northern Cape and the Northern Cape agricultural households. Per capita household earnings are used as reference throughout this section:

**Table 13 : Gini and Theil measures of inequality for 2007**

	South Africa		Northern Cape		Northern Cape agriculture	
	Gini	Theil	Gini	Theil	Gini	Theil
African	0.79	3.19	0.68	1.18	0.34	0.19
Coloured	0.55	0.56	0.61	0.77	0.49	0.56
Indian	0.57	0.6	0.72	1		
White	0.47	0.4	0.5	0.59	0.5	0.56
Total	0.75	2.25	0.68	1.08	0.66	1.06

Source: Own calculation from Labour Force Survey 2007

In Table 13, the African population with a Gini of 0.79 and Theil of 3.19 have the highest inequality in South Africa. The lowest is the White subgroup with 0.47 and 0.4 respectively, and the average for South Africa is 0.75 and 2.25. In the Northern Cape, the Indians dominate, but in agriculture the White is the highest. What is interesting to note is the low inequality within race in the Northern Cape agriculture households, but the total inequality is high. This indicates that between races inequality is high. The Northern Cape average is also relatively high, signifying that there is high inequality within the province.

Looking at the Lorenz curve in Figure 32, it can be seen that the Northern Cape agricultural households are least unequal, and income distribution in the Northern Cape as a whole is less unequal than the national average.

Figure 32: Lorenz curve for individuals in South Africa, Northern Cape and Northern Cape agricultural households in 2007
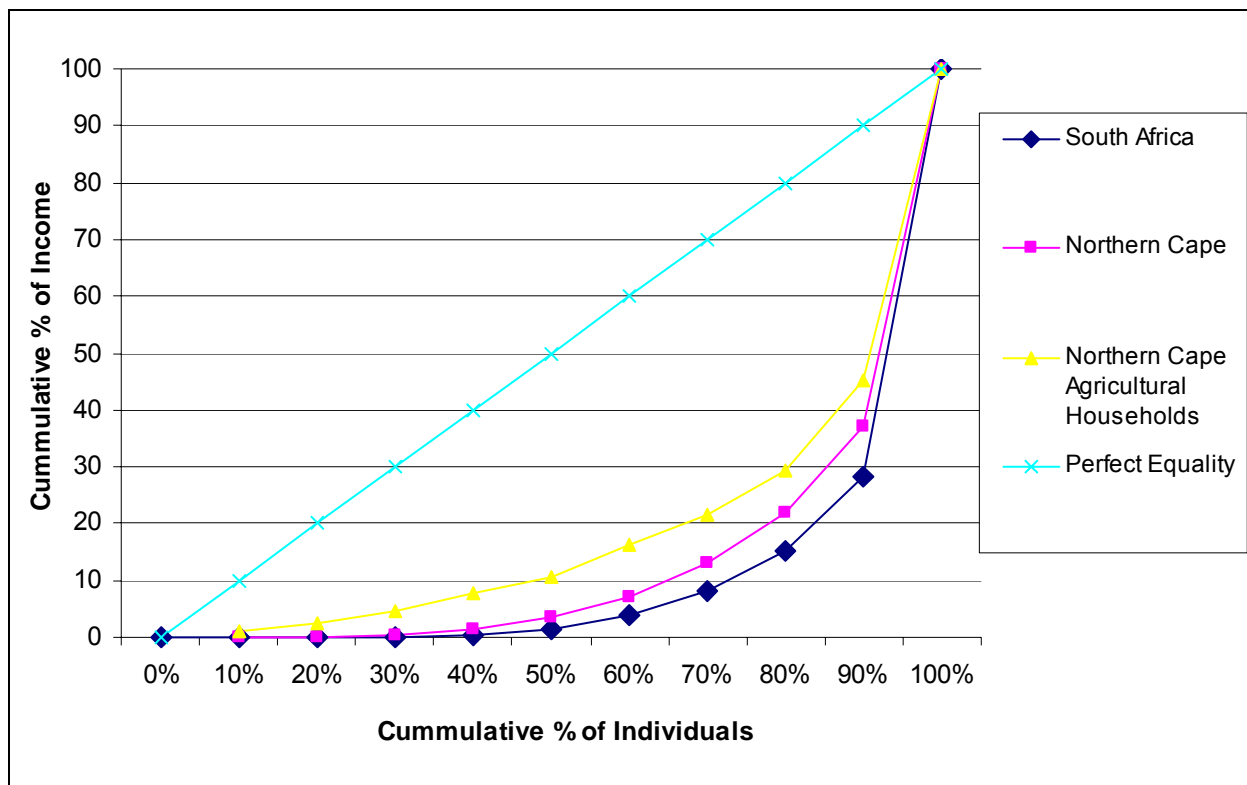
Source: Own calculation from Labour Force Survey 2007

The following 2 figures represent the Lorenz curve and Gini coefficients for the Northern Cape agricultural households from 2000 till 2007. It can be observed in Figure 33 that the lines for 2000 and 2001 lie furthest from the equality line, while those for 2006 and 2007 lie closest. This indicates that there has been a general decrease in inequality from 2000 till 2007.

Figure 33: Lorenz curve for Northern Cape agricultural households by year
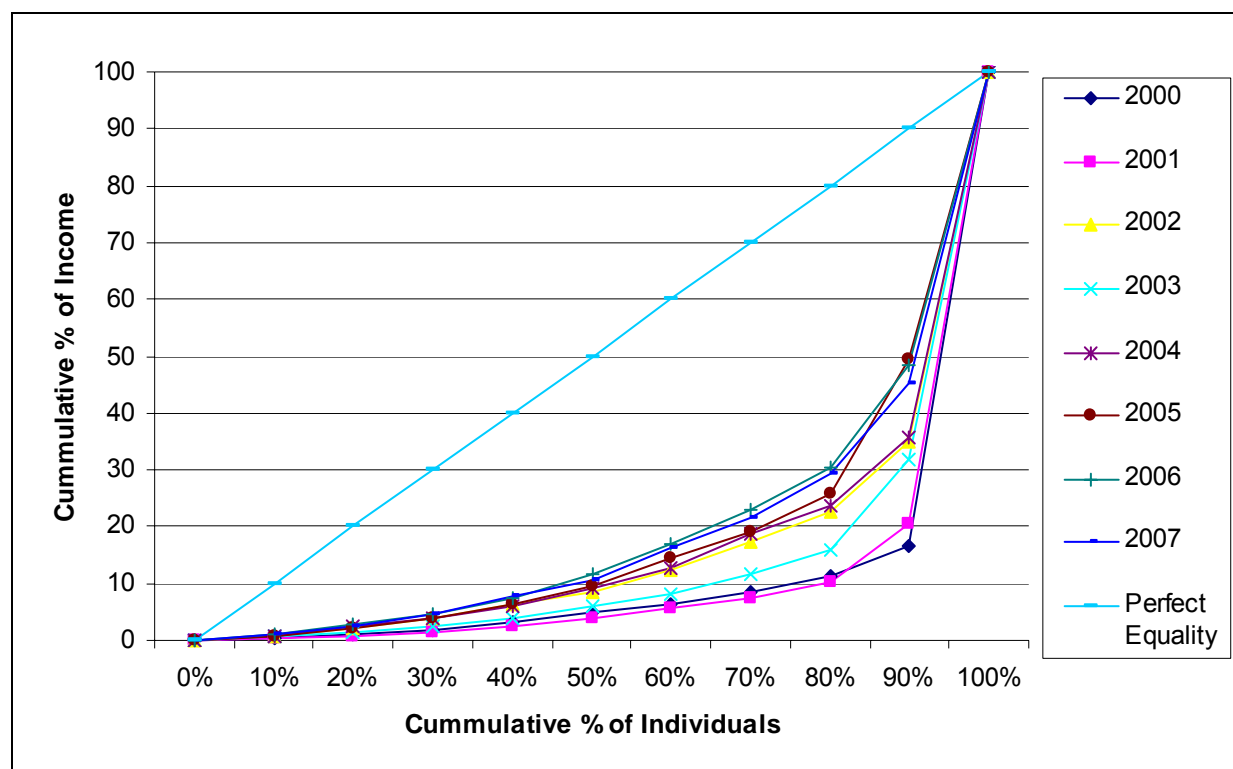
Source: Own calculation from Labour Force Survey 2000-2007

The Gini coefficient in Figure 34 also shows a downward pattern for the total (from 0.82 to 0.66), indicating that inequality has decreased over the period from 2000 to 2007. The Gini coefficient of the Coloureds increased from 0.38 to 0.5 while that of the Whites increased from 0.48 to 0.5. The Gini coefficient of the African agricultural households decreased from 0.38 to 0.34.

Figure 34: Gini coefficient for Northern Cape agricultural households by year
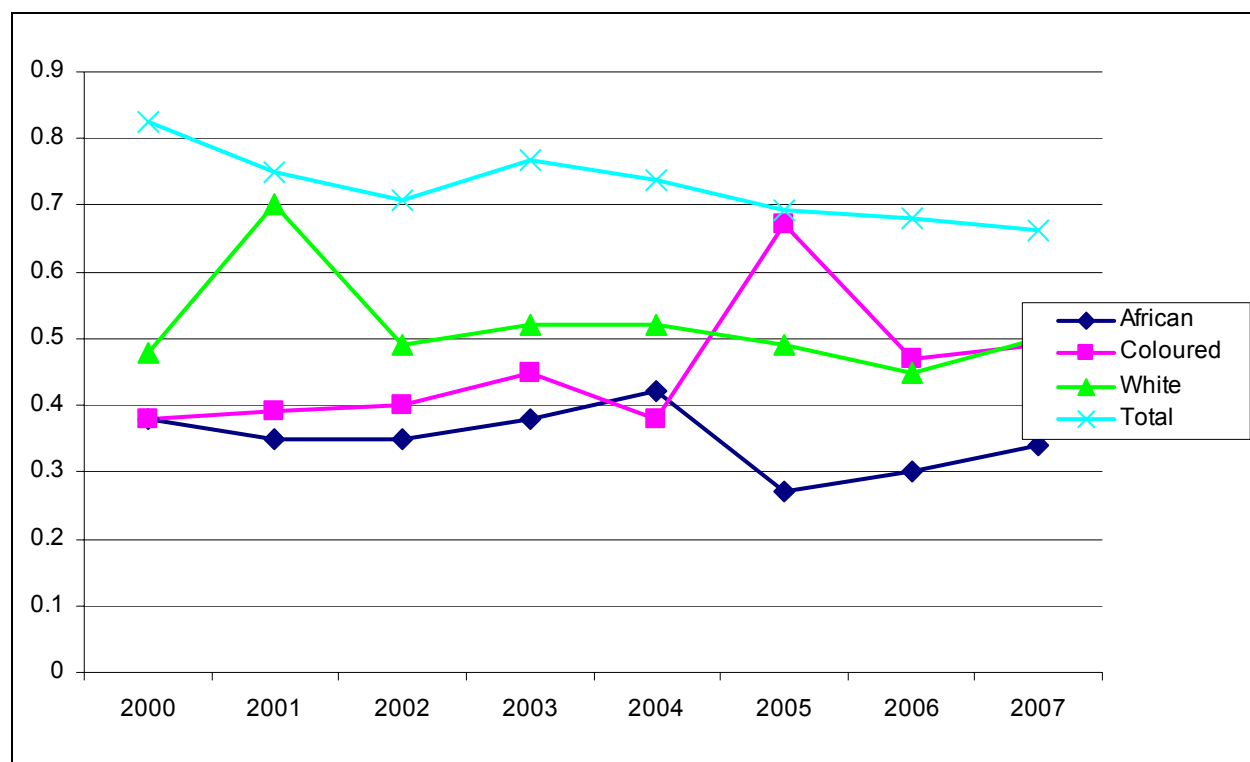
Source: Own calculation from Labour Force Survey 2000-2007

7. Conclusion

The Northern Cape agricultural sector is an important player in the economy of the Northern Cape and therefore this paper analysed the trends associated with the sector with regards to demographics, poverty, income and inequality. The Labour Force Survey provided the necessary data to compute the required results, ranging from the year 2000 till 2007. The paper indicated that the Coloured population is dominant in this sector, while the Africans take that position in South Africa. The total number of individuals in respective economic segments, i.e. South Africa, Northern Cape and Northern Cape agriculture are also provided together with statistics such as age structures and employment figures.

The skills level of the agricultural sector is worrisome, and the impact of low skill levels reflects in the income profiles. Incomes in agriculture are lower than non-agricultural incomes across the board except for that of the White population, but a relatively larger share of the White population is working in positions classified as semi skilled or skilled.

Unemployment rates are being driven by the high unemployment within the African and Coloured population in both South Africa and the Northern Cape. This reflects in the high share of the Africans in the total poverty rate throughout the country. Share of total poverty levels are extremely high amongst the Coloureds in the Northern Cape agricultural sector, reflecting the

need for poverty alleviation. Poverty levels have been decreasing during the past 7 years when using the poverty line of R322 per capita per adult equivalent as measure.

Income inequality has decreased since 2003 for the agricultural sector. The sector is also characterised by more between-race inequality as within-race inequality. There is more inequality amongst the Whites in the Northern Cape agricultural sector than in South Africa, whereas the national figures for within-race inequality is higher for the other race groups than for the Northern Cape agricultural sector.

This report provides an in-depth look at the agricultural sector of the Northern Cape. Policy decisions and redistribution policies of provincial level need to take these data into account to promote the economic growth of the Northern Cape and also to enhance the living standard of the people of the Northern Cape.

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