CENSUS 2011

Income dynamics and poverty status of households in South Africa

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Census 2011: Income dynamics and poverty status of households in South Africa

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1. Introduction

1.1 Purpose of the report

A population census is a total count of the country's population and their demographic, economic and social characteristics. In democratic South Africa, three censuses have been conducted thus far. The first census was conducted in 1996, followed by another in 2001 and the most recent one in 2011. The census measures a number of individual and household attributes and a variety of indicators are generated from these attributes, such as demographics, migration, education, general health and functioning, economic activity, mortality and asset ownership. Therefore, census data provides useful information about the country's households and individuals and their living conditions. So, even though the census data is not specifically designed to measure poverty, census data can provide a useful snapshot of the income levels and poverty situation of South Africans at specific periods.

Poverty measurement in South Africa is commonly executed through the monetary poverty statistics which are published through the Living Conditions Survey, and Income and Expenditure Survey (which are surveys conducted by Statistics South Africa). These household surveys profile poverty by comparing consumption expenditure of households to the official poverty line. However there is an increasing need for the measurement of poverty which goes beyond monetary measurement. The census data can further provide supplemental measures to those obtained from household surveys, which mostly focus on monetary poverty measurement.

This report looks at two areas of interest; firstly, to analyse the income levels of households, on nominal values, by looking at their demographic, social, household and geographic characteristics. These household income dynamics are compared between Census 2001 and Census 2011.

Secondly, this report looks at making use of census data to profile poverty in South Africa, firstly by profiling poverty using the income variable and further employing the multidimensional index as a measure of poverty. Furthermore, these approaches are compared with each other.

1.2 Layout of this report

This report has seven sections, the introduction looks at the purpose and layout of the monograph. Section 2 provides a background into poverty measurement and reviews literature on poverty lines and approaches to poverty measurement. Section 3 looks into the findings of census data by exploring the income data while section 4 provides a discussion on the limitations of the income variable in the census dataset. Section 5 looks at poverty measurement using the census data. Section 6 is the conclusion while section 7 provides definitions of key concepts.


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2. Background to poverty measurement

2.1 Introduction

Poverty measurement takes place in three basic steps. The first step is to identify an indicator of welfare; the second is to establish a minimum acceptable standard of that indicator to separate the poor from the non-poor (poverty line); and the third is to generate a summary statistic to aggregate the information from the distribution of this welfare indicator, relative to the poverty line.

The welfare indicator can be money-metric, meaning that monetary measures are used to measure poverty, e.g. income. The World Bank identifies the lower bound of the poor as those individuals who live on less than $1,00 a day. The welfare measure can also be non-money-metric, meaning non-monetary measures are used to distinguish the poor from the non-poor, such as education or health.

The monetary and non-monetary measures of poverty can be used as single indicators of poverty. The unidimensional approach defines poverty by determining a single indicator for standard of living, usually a monetary indicator, and compares that indicator to some defined poverty threshold. An individual is considered poor when his or her resources fall below the threshold.

Alternatively, monetary and non-monetary measures of poverty can be combined into multiple indicators to represent particular dimensions of welfare. This is known as the multidimensional approach.

2.2 Poverty lines

A poverty line is a minimum threshold that is required by a household to meet its basic needs. A poverty line is usually expressed in monetary terms. Wikipedia gives a simplified definition of a poverty line as the smallest amount of money that a family needs to make to be able to buy what it needs to live. A poverty line can also be seen as the aggregate cost of a minimum basket of goods, which indicates a required level of household expenditure.

It is important to set poverty lines to allow for comparability between countries and between time periods to assess the impact of policies on poverty.

The technical report by Statistics South Africa (D0300, 2008) outlines three approaches for determining a poverty line:

a) Absolute poverty line
   An absolute poverty line is a fixed value of a basket of goods required to form minimum subsistence. An example would be minimum income required to meet the basic needs of a household.

b) Relative poverty line
   The relative poverty line is set in relation to changing standards of living of other people in the income or expenditure distribution. In this sense, poverty is a phenomenon of inequality. An example would be the poor being those individuals

that have incomes below 50% of the average income of the society. The relative poverty line shifts over time with changing social and economic conditions in the society.

c) Subjective poverty line
The subjective poverty line considers the population's perception of their own wellbeing, therefore the threshold between the poor and the non-poor is determined by people's perceptions. This is done in two steps, firstly the minimum income question is utilised, and then the average minimum income renders the poverty line. The subjective poverty line approach can be used in monetary as well as non-monetary contexts.

The absolute poverty approach is the most common of all three approaches. This is mainly true in low-income countries and middle-income countries where inequality is high. Absolute poverty measurement is important in providing information for poverty reduction policies since they can be used for long-term statistical use. The absolute poverty line is easy to maintain since the base is fixed and is only adjusted for inflation, therefore the data can be compared over time and between regions. To ensure the line remains relevant, it should also be updated every five years to account for changes in consumption and spending patterns using data from household expenditure surveys such as the IES (Statistics South Africa, National Treasury 2007).

2.3 Poverty measurement using the unidimensional approach

This is a conventional measure of poverty that compares household resources with a defined cut-off below which a household will be considered as poor. These resources are welfare indicators and they can be in monetary form as well as non-monetary form. Monetary welfare indicators are in the form of household income or consumption expenditure, whilst non-monetary welfare indicators are in subjective form, such as health satisfaction or job satisfaction.

2.3.1 Monetary measures of poverty

Poverty is commonly measured in money-metric terms and it is accepted in most countries as the official method for measuring of poverty. Income and consumption expenditure are the popular money-metric measures that are the most popular, (Boltvinik, 1994). Countries differ on which money-metric indicator to use. Ultimately the choice of indicator used to measure monetary poverty depends on the quality and availability of data supporting these measures (Johnson, 2004).

It is important to note that income and consumption cover different aspects of poverty, therefore where data for both indicators are available, it might be worthwhile to compute poverty measures with both indicators and compare results.

Income as a poverty measure

Income is the most commonly used measure of poverty in developed countries, as the choice of income as a welfare measure may also provide certain advantages. Income reflects consumers' opportunities and access to resources and not just use. Therefore some consumers may have voluntary low expenditure, which does not mean they are poor. Using income can allow us to distinguish by income sources when analysing poverty.

The first challenge with income, however, is how income is defined, and whether it can be measured accurately. Income is defined as the sum of consumption and change in net worth (Barr, 2004). In practice, monetary income is usually thought of as a proxy for full income since non-monetary income cannot be easily measured. Furthermore, income may be understated as it might be difficult to measure other forms of income such as interest and income from some forms of self-employment. It would be difficult to obtain an accurate value of farm income where, for example there is an increase in the value of animals in a farm. Also, respondents find it difficult to estimate the increase in value of their assets.

Data collection on income is also a challenge. Respondents tend to hesitate to divulge information on their income for confidentiality reasons, and therefore they tend to understate the actual value of their income. Respondents would not be willing to disclose the nature of their income, especially where the income was obtained from illegal activities. Lastly, respondents tend to forget about items they may have sold or money they received over a long period of time (Riphahn and Serfling, 2002).

Consumption expenditure as a poverty measure

Most analysts argue that consumption expenditure is a better poverty measure than income since the ability to meet current basic needs can be better reflected by actual consumption than income which represents potential consumption (Bavier, 2008). It is relatively easier to obtain information on consumption from respondents.

Consumption expenditure is smoother and less volatile than income (Meyer and Sullivan, 2012). Therefore it is more accurately reported. In informal communities, income flows may be erratic and fluctuate during the year, such as for seasonal work on farms.

The use of consumption expenditure as a measure of poverty also has its own disadvantages. Bias may also be introduced during data collection by respondents' inability to recall the timing of purchases or them completely forgetting to record certain expenditure of goods. Out-of-household expenditures and acquisitions of items that will be used for periods longer than the reference period also introduce bias in the data.

2.3.2 Non-monetary poverty measures

It has long been said that poverty is not just about money and that it is multidimensional in nature. Even though monetary-based measurement has been accepted as the traditional measure of poverty, it is, however, just one key of the many dimensions of poverty (Pritchett, 2006). There is a substantial amount of literature on the inadequacies of the traditional money-metric measures in explaining poverty and there has been a good deal of interest in exploring how non-monetary information can also be used to improve the measurement and understanding of poverty (Nolan and Whelan, 2009).This has brought about the need to consider non-monetary indicators as measures of wellbeing.

Boltvinik (2001) discussed in length the problem of assumptions made when using monetary measures, such as the assumption that only material needs should be considered, meaning that only goods and services are satisfiers or measures of well-being. Sen (1993) introduced the welfare approach by considering a person's capability to be, and to do things of intrinsic worth. Therefore, a person's capability to function was the criterion for assessing the standard of living. Kingdon, Knight (2005) stated that the best way to measure subjective poverty is by considering the fulfillment of basic needs, the capabilities to be, and to do things of intrinsic worth, and safety from insecurity and vulnerability.

Information regarding non-monetary poverty relates to a wide variety of indicators, from ownership of assets, to how people regard and report on their own situations (Nolan and Whelan, 2009). When individuals are asked to classify themselves in terms of their poverty status, they take into account factors such as education, employment status, health status, permanent income, etc. Individuals' perceptions of their well-being greatly depend on their own functioning in comparison to other individuals in their societies.

The biggest criticism of monetary poverty measurement is that the values are fixed. It is not clear that the household classified as 'poor' according to the objective definition of poverty would necessarily recognise itself as poor, or whether households that feel poor would not be classified as being 'non-poor'.

A large variety of methods are used to measure poverty with this approach which gives flexibility to the unique situation of countries or subgroups. For example, there are poor countries where income is an inadequate concept and consumption stems from home production and exchange in-kind (Van Praag et al. 2006). In these cases subjective measures of poverty are important in order to fully depict the picture of poverty.

Non-monetary deprivation indicators are difficult to measure given that what is considered basic necessities may differ from person to person. Even to the same person, basic necessities may differ over time as the person's living circumstances change. This makes it difficult to establish comparisons between households and time periods. Nevertheless, it is a useful lens to visualise and to help understand and measure poverty.

2.4 Poverty measurement using the multidimensional approach

There has been a shift to put more emphasis on measures beyond monetary indicators. Poor people go beyond monetary measures in defining their experience of poverty. This is an indicator that monetary measures only capture a part of the picture and do not fully describe the complexity of poverty.

Professor Boltvinik provides a few reasons why poverty should be measured using the multidimensional approach. His first reason was that poverty measurement must be multidimensional because human needs are multiple (e.g. Maslow's seven needs or Max-Neef ten needs), which are met through diverse satisfiers (goods and services, relations, activities, theories, capacities, institutions) made possible by a plurality of resources or well-being sources; secondly because 'money cannot measure everything' (Boltvinik, 2001).

To cover the multidimensional nature of poverty, nonmonetary measures have to be considered also. Therefore, poverty can also relate to insufficient outcomes with respect to health, nutrition and literacy, to deficient social relations, to insecurity, and to low self-confidence and powerlessness. Experiences of poverty can also include psychological and environmental factors.

The analysis of poverty can therefore be broadened to include non-monetary poverty measures. The inclusion of non-monetary measures to complement the conventional measures of poverty will lead to multidimensional poverty measurement.

South Africa has also undertaken initiatives to profile poverty or deprivation from a multidimensional perspective. These initiatives began in 2000 and include:

- Measuring poverty in SA
    - Developed in 2000 using Census 1996 data, the household infrastructure index and a household circumstances index were developed.

- Provincial indices of Multiple Deprivation
    - This index was developed in 2006 using Census 2001 data.
    - Indices of deprivation were constructed at provincial and ward-level.
    - The dimensions used were income and material, employment, education, health and living environment.

- Men, Women and Children
    - In 2013 a poverty index was developed using the Bristol method
    - The Bristol method is internationally used as a measure of multidimensional child poverty.

    - The initial work was funded by UNICEF and has been adopted by UNICEF's Global Study on Child Poverty and Disparities. According to this method, a child is considered to be living in absolute poverty if he or she suffers from two or more severe deprivations of basic human needs (food, safe drinking water, sanitation facilities, health, shelter, education, information, access to services).

Some of the well-known methods to measure multidimensional poverty include:

- The United Nations Development Program (UNDP) methods
    - Human development index
    - Human poverty index
    - Global multidimensional poverty index
- Integrated Poverty Measurement Method
- Multiple deprivation index
- Social Progress Index
- Swedish approach to welfare
- Index of marginality
- Index of social progress – lifetime deprivation

Some of these methods are discussed below:

Human development index (HDI)

The HDI was introduced by the UNDP in 1990 as a way of measuring development by combining three dimensions into one composite development index. The HDI is published annually in the UN Human Development Report. The three basic dimensions of development measured are health, education and living standard. Under each dimension the following indicators were developed:

- Health – life expectancy at birth
- Education – mean years of schooling and expected years of schooling
- Standard of living – income

The HDI sets a minimum and a maximum for each dimension, called goalposts, and then shows where each country stands in relation to these goalposts, expressed as a value between 0 and 1. The closer to 1 the score is, the higher the level of human development. The HDI is also useful when disaggregated to identify specific deprivations that households suffer.

The advantage of the HDI is that it provides a single statistic which serves as a frame of reference for both economic and social economic development. Furthermore, the HDI does not solely concentrate on economic development, but it takes into consideration that there are other, more social, ways to measure human development.

As an additional indicator, the HDI-2 also included social exclusion as the fourth dimension of development. The indicator for social exclusion is the rate of long term unemployment.

The HDI may be an unreliable measure as data from some developing countries may not be very reliable and may be difficult to confirm. The measures chosen also may seem very arbitrary to some because there are other ways of measuring relative qualities in health and education. The HDI also does not measure unequal distribution within the country, for example the education index gives no indication about access to education for all groups in society.

Human Poverty Index (HPI)

The HPI was developed in 1997 by the UNDP as a measure of standard of living of different countries. It is a composite index that assesses three elements of deprivation in a country – longevity, knowledge and a decent standard of living.

The index is derived separately for developing countries (HPI-1) and a group of select high income OECD countries (HPI-2). This is done to better reflect socio-economic differences between the two groups.

Components for HPI-1 are:

- Health – probability at birth of not surviving to the age of 40.
- Education – adult literacy rate.
- Standard of living – percentage of the population not using an improved water source and the percentage of children under-weight for their age.

Components for HPI-2 are:

- Health – probability at birth of not surviving to the age of 60.
- Education – percentage of adults lacking functional literacy skills.
- Standard of living – percentage of the population living below the poverty line (which is defined as those below 50% of median household disposable income), and social exclusion (long-term unemployment rate).

Countries are then ranked according to their HPI from countries with the highest standard of living to countries with the lowest standard of living.

The HPI better reflects the extent of deprivation in different countries, the separation between developing and developed countries shows less bias compared to the HDI. However, the HPI also faces a challenge of unavailability of all data, especially for developing countries. Sometimes the data may be too broad to take into consideration.

Global multidimensional poverty index (MPI)

The global MPI replaced the HPI as a new measure of poverty to capture more aspects of poverty by using a range of indicators. The global MPI was developed by UNDP together with Oxford University to measure the prevalence and intensity of multidimensional poverty and has been adopted as an international measure of acute poverty. The global MPI identifies who is poor by considering a range of deprivations they suffer with respect to health, education and standard of living. Ten indicators are identified under these components and main categories as follows:

- Health – nutrition and child mortality
- Education – children enrolled and years of schooling
- Standard of living – assets, floor, electricity, water, sanitation and cooking fuel

To develop the MPI, this method counts overlapping deprivations that an individual suffers in the different indicators at the same time. Individuals are classified as multidimensionally poor if the weighted sum of their deprivations is greater than or equal to a poverty cutoff, usually 33%, of all possible weighted deprivations (Alkire and Foster, 2007). The intensity of their poverty is measured by the number of deprivations they are experiencing.

The MPI is a useful tool in measuring poverty because it assesses poverty at individual level, therefore it can identify the most vulnerable people within countries. In turn, the MPI can therefore be aggregated to household and communities that are deprived. The data can further be aggregated into a national measure of poverty. Therefore a pattern can be developed within countries, between countries and over time.

The MPI is able to report how many people experience overlapping deprivations, as well as how many deprivations they face on average. It can also classify between groups of poor people by the kind of deprivation that they suffer and the number of deprivations that they suffer at the same time. The ability by the MPI to be broken down by indicator is also a great advantage in the evaluation of changes in the composition of multidimensional poverty over time for different regions, population groups, etc.

The global MPI also has its own limitations, mainly due to data constraints. For some countries the flow of data may not be available for all dimensions. The health dimension faces criticism as it is relatively weak and can overlook some groups' deprivations such as nutrition. The index also does not reflect intra-house inequalities.

The global MPI is the foundation of the South African MPI (SAMPI), which will be used in this report as a measure of multidimensional poverty.

The Integrated Poverty Measurement Method (IPMM)

The IPMM was developed by Julio Boltvinik as an alternative measure of poverty in Mexico. The IPMM measures poverty by combining sources of well-being that can be measured in monetary terms and those that cannot be measured in monetary terms (Boltvinik, 1994). Therefore the method combines the poverty line method, the

unsatisfied basic needs (UBN) method, and the index of excess working time, which serves to identify time poverty. Three dimensions and six indicators of well-being are used to obtain an integrated household poverty index used in the development of the IPMM. The dimensions and indicators are as follows:

- Economic resources – Current income, non-basic assets, basic assets, access to free goods and services
- Abilities – Knowledge and skills
- Available time – Free time

In the IPMM, a comprehensive poverty index is worked out in two stages for each household. In the first stage, household income is adjusted by dividing it by the index of excess domestic work, before comparing it to the poverty line in order to obtain income-time poverty. In the second, the combined index of UBN (that is obtained as a weighted average of its partial indices) is combined with that of income-time through a weighted average. All households that have a positive value in the resulting integrated poverty index (IPMM index) are classified as poor.

The IPMM allows for the evaluation of each household from a partial point of view, taking into account only one dimension or one component (income poverty, unsatisfied-basic-needs poverty, time poverty or poverty as depicted by any of the components of UBN). This method offers a measurement of poverty that is not only comprehensive but is also more precise and dynamic than measurements based exclusively on income.

The IPMM may be limited by availability of data, especially for the required variables.

2.5 Conclusion

The literature review looked at different approaches used in poverty measurement. The classification of the poor from the non-poor is determined by developing a poverty index that is compared to a predetermined poverty line. This poverty index can be developed by unidimensional measures, of which income and consumption expenditure are the most commonly used proxies for well-being. Despite the common usage of monetary indicators to measure poverty, non-monetary measures, such as multidimensional and subjective poverty measures, can also be used to develop an index to measure poverty.

The production of non-monetary dimensions to poverty does not eliminate the need for monetary dimensions of poverty measurement; rather they complement each other to help us to fully comprehend the understanding of poverty.

Furthermore, various methods of multidimensional poverty measurement were looked into, including the advantages of using a multidimensional index to profile poverty.


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3. Exploring the income data

3.1 Introduction

This section profiles the distribution of households by annual household income between two census periods, 2001 and 2011. For the purposes of this monograph, we have divided annual household income into four income categories:

- No income: R0
- Low income: R1–R19 200
- Middle income: R19 201–R307 200
- Upper income: R307 201 and above

The distribution of income will be studied at different geographic levels, characteristics of household members, dwelling characteristics, access to basic services and ownership of goods.

3.2 Distribution of households by annual household income at national level

Figure 1: Percentage distribution of households by income categories (2001 and 2011)

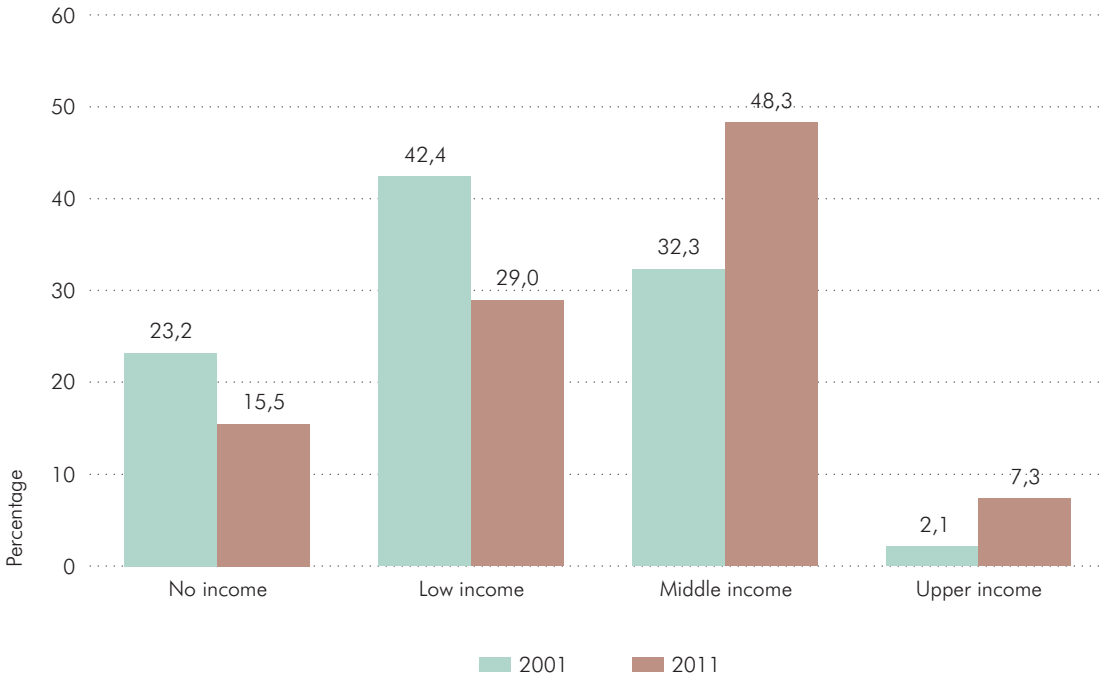


Figure 1 shows a significant improvement in income levels of households from 2001 to 2011. There was a significant decrease in the proportion of households in the no-income and low-income categories. Furthermore, there was an increase in the proportions of households in middle and upper-income categories.

Significant changes were in the low-income and middle-income categories, where there was a decrease in the proportion of households in the low-income category (-13,4 percentage points) and an increase in the middle-income category (16 percentage points).

3.3 Distribution of households by annual household income at provincial level

3.3.1 Distribution of households in the no-income category

Figure 1 showed a decrease in households who reported to have no income from 23,2% in 2001 to 15,5% in 2011. Despite this substantial decrease in the proportion, it is still alarming that more than 15% of households in South Africa reported to have no source of income. Ideally this category of income is expected to be as minimal as possible, if not non-existent.

As already discussed, there are possibly two kinds of households who are classified under this category of income. Firstly, those households who did not want to divulge their income information, and secondly those poor households with no, or irregular income. The identification and investigation of the reason and sources of income non-response is an issue for another report. For this monograph we will look into the profiles (geographic, demographic, etc.) of these households and individuals with no income in order to fully grasp the picture of these households.

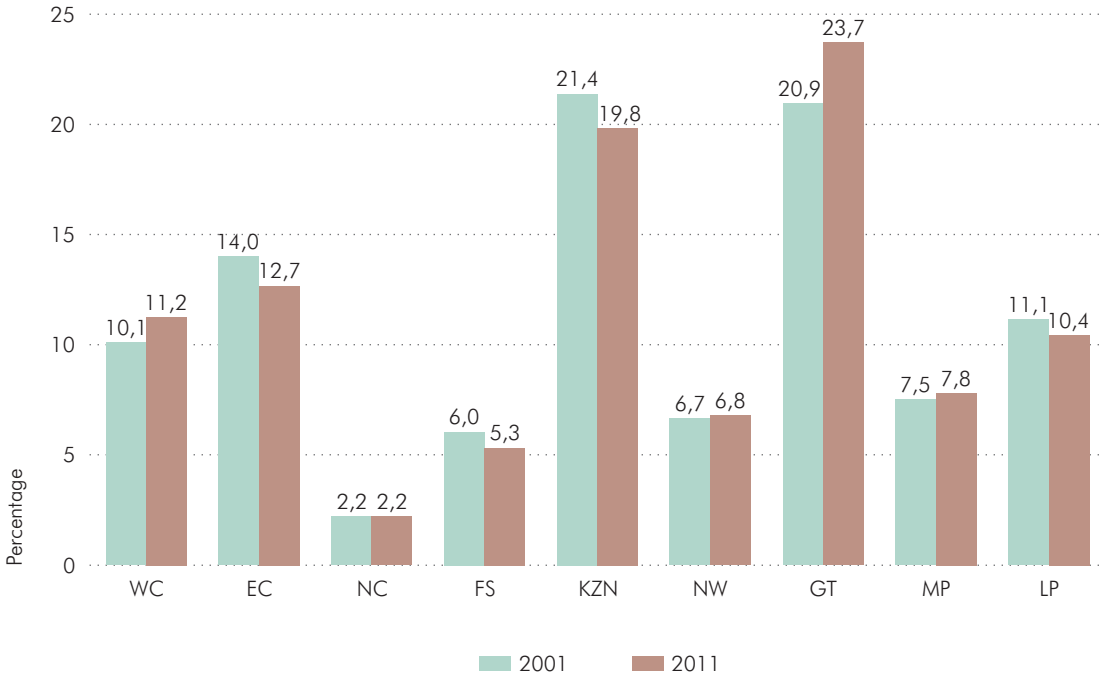
Figure 2: Provincial distribution of households in the no-income category (2001 and 2011)

In 2011, 29,7% of households who reported no income were situated in Gauteng, which is a sharp increase from 20,4% in 2001. KwaZulu-Natal reported the highest proportion of households with no income in 2001 (21,7%) but this further decreased to 17,8% in 2011. Eastern Cape, with the third highest proportion of households with no income, reported a decrease from 17,5% in 2001 to 12,1% in 2011 (Figure 2).

It is also interesting to note that Western Cape reported a significant increase in the proportion of households with no income, from 5,2% in 2001 to almost double (10%) in 2011.

The increases in the proportions of households without income in Gauteng and Western Cape can be partly attributed to population growth in both provinces. Both Gauteng and Western Cape reported the biggest population growth trends from 2001 to 2011, as shown in Figure 3 below. The population of Gauteng grew from 20,9% of the total population of South Africa in 2001 to 23,7% in 2011, whereas the population of Western Cape grew from 10,1% of the total population in 2001 to 11,2% in 2011. North West and Mpumalanga reported minimal increases in the proportion of the total population between 2001 and 2011, four out of nine provinces reported decreases, whilst Northern Cape remained consistent between the two periods.

Figure 3: Percentage distribution of the population counted in Census 2001 and 2011 by province



Gauteng and Western Cape are the economic hubs of South Africa. People tend to move to these provinces in order to search for employment opportunities, which explains the increase in the population count (and therefore household numbers) for both provinces. This trend is also evident in migration patterns of provinces for 2011, as shown in Table 1 below. People tend to move to Gauteng from other provinces and outside the country. In Census 2011, only 56% of the people counted in Gauteng were born there, with the majority of migrants being from Limpopo (10,8%), followed by those born outside South Africa (9,5%) and those born in KwaZulu-Natal (5,9%). In Western Cape, 71,9% of people counted there were born in the Western Cape. The majority of migrants to Western Cape were born in Eastern Cape (16,2%) and outside South Africa (4,5%).

Table 1: Percentage distribution of the population by place of birth and province where the person was counted (2011)

	Province where counted								
Place of birth	EC	FS	GT	KZN	LP	MP	NW	NC	WC
EC	**94,0**	2,5	4,5	2,9	0,4	1,6	2,7	2,0	16,2
FS	0,4	**87,3**	3,2	0,4	0,3	1,2	2,9	1,9	0,8
GT	1,2	2,7	**56,0**	1,3	2,5	4,7	4,9	1,6	2,9
KZN	0,7	1,0	5,9	**92,0**	0,2	2,8	1,0	0,8	1,2
LP	0,1	0,6	10,8	0,2	**90,9**	4,2	2,8	0,3	0,3
MP	0,2	0,5	4,3	0,4	1,6	**79,9**	1,2	0,3	0,4
NW	0,1	1,1	3,5	0,2	0,6	0,8	**78,3**	3,7	0,3
NC	0,4	1,0	0,8	0,6	0,1	0,7	1,3	**85,2**	1,5
WC	1,7	0,8	1,5	0,3	0,4	0,4	0,5	2,5	**71,9**
Outside RSA	1,2	2,5	9,5	1,7	3,0	3,7	4,4	1,7	4,5
RSA	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

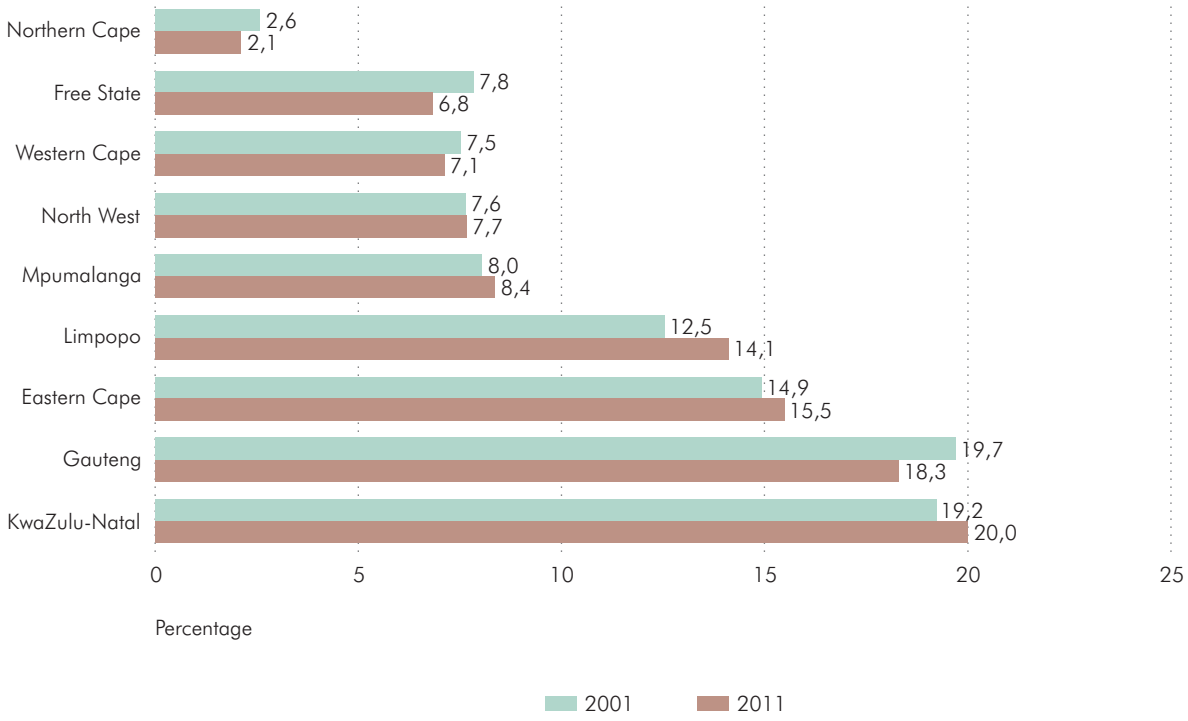
3.3.2 Distribution of households in the low-income category

Households defined as low-income category households in our definition are classified as those households who reported annual household income between R1 and R19 200. According to the Income and Expenditure Survey 2010/2011 (IES 2010/11), the average annual household income for poor households was R25 348, which is substantially higher than the maximum household income of R19 200 (using the upper-bound poverty line) for the low-income category. Therefore, it would be practical to classify households in this category of income as poor households.

Overall, households with low income decreased drastically from four out of ten (42,4%) in 2001 to just below a third (29,0%) in 2011 (Figure 1). According to Figure 4, four out of the nine provinces reported decreases between 2001 and 2011. These decreases were reported for Gauteng, Western Cape, Free State and Northern Cape.

The provinces with the highest proportions of households with low income were KwaZulu-Natal, Gauteng, Eastern Cape and Limpopo in both 2001 and 2011. KwaZulu-Natal, which is the province with the highest proportion of households with low income, increased from 19,2% in 2001 to 20,0% in 2011. Gauteng, despite the biggest decrease in proportion of low-income households from 19,7% in 2001 to 18,3% in 2011, had the second highest proportion of low-income households. Limpopo had the biggest increase in the proportion of households with low income of 1,6 percentage points from 12,5% in 2001 to 14,1% in 2011.

Figure 4: Provincial distribution of households in the low-income category (2001 and 2011)

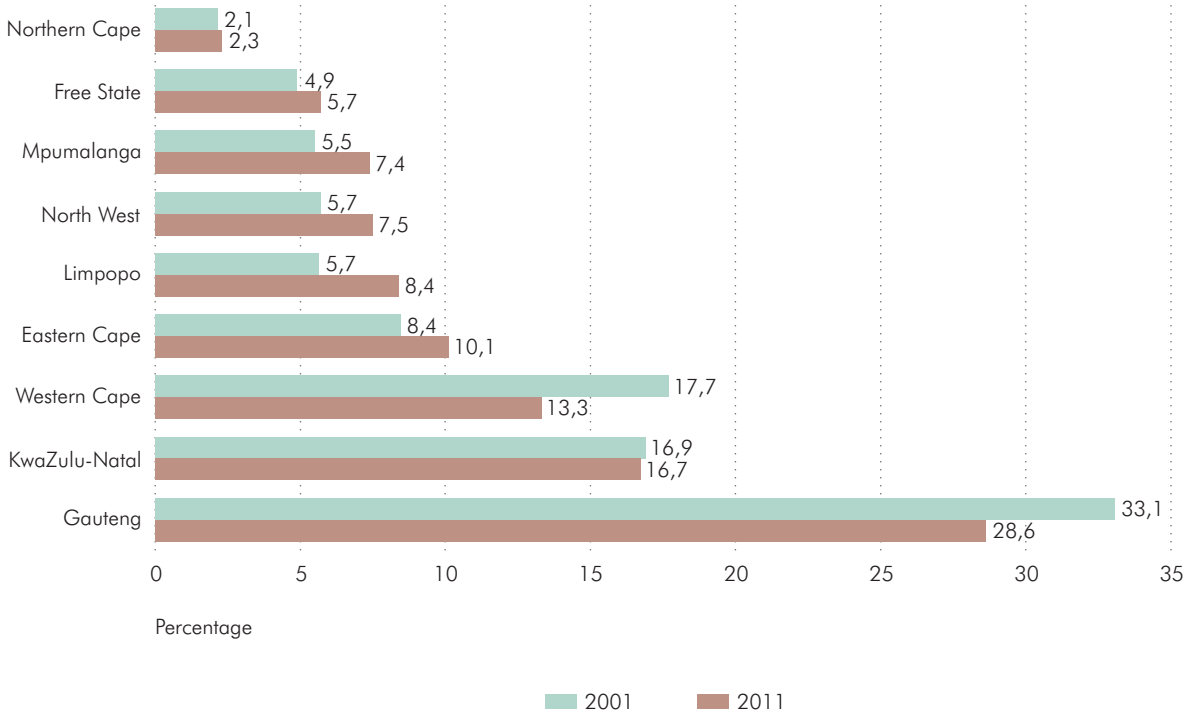


It is interesting to note that the provinces with the highest proportions of low-income households also follow the same trend in terms of official poverty levels as shown by the IES 2010/11 results. According to the IES 2010/11 results, the provinces with the biggest share of poor households were KwaZulu-Natal (23,2%), followed by Eastern Cape (18,3%), Limpopo (16,1%), and then Gauteng (12,8%).

3.3.3 Distribution of households in the middle-income category

The middle-income category, which comprises households with annual household income between R19 201 and R307 200, was reported by almost half (48,3%) of households in South Africa in 2011. This is a major increase from almost a third (32,3%) in 2001. An increase in income of households is indicative of an improvement in living conditions of households in South Africa and is considered to be a potential growth of a stronger middle class.

Figure 5: Provincial distribution of households in the middle-income category (2001 and 2011)



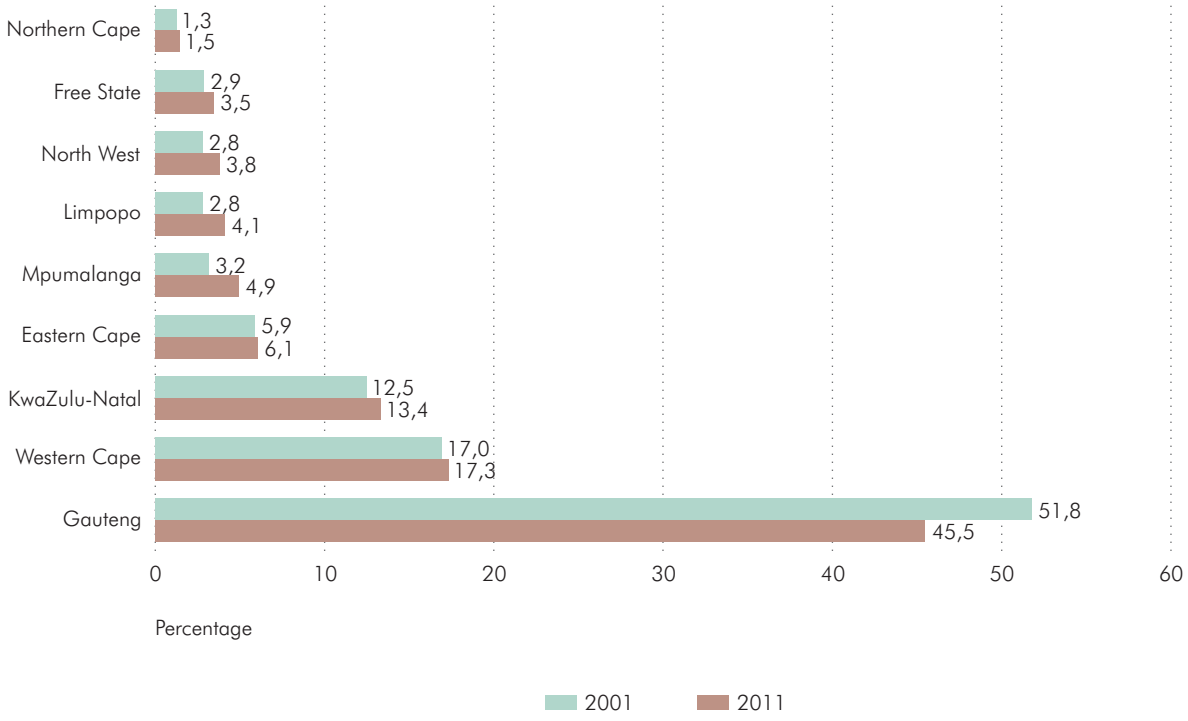
The provincial distribution of middle income, as shown in Figure 5, indicates that there were increases in six of the nine provinces. Gauteng reported the largest proportion of households with middle income in both 2001 (33,1%) and 2011 (28,6%). Despite the decrease in the proportion by 4,5 percentage points (from 2001 to 2011), Gauteng remained the highest contributor to the majority of households with middle income. KwaZulu-Natal followed with a steady proportion between 2001 and 2011, at 16,9% and 16,7% respectively. Western Cape came third with the proportion of households with middle income. It is interesting to note that Western Cape also showed a decrease between 2001 and 2011 of 4,4 percentage points.

3.3.4 Distribution of households in the upper-income category

Upper-income represents annual household income from the value of R307 201 and upwards. Nationally, households within the upper-income category increased significantly from 2,1% in 2001 to 7,3% in 2011.

Looking at provincial distribution, almost half of all households with upper income resided in Gauteng, followed by Western Cape and KwaZulu-Natal. Gauteng, despite having the largest proportion of households with upper income, reported a decrease of 6,3 percentage points from 51,8% in 2001 to 45,5% in 2011. All other provinces reported increases in income levels from 2001 to 2011 (Figure 6).

Figure 6: Provincial distribution of households in the upper-income category (2001 and 2011)



This further emphasises the point made previously that Gauteng and Western Cape are the economic hubs of South Africa. Therefore, it is logical to expect the greatest share of high income households in these provinces.

3.4 Distribution of households by annual household income and settlement type

There were significant differences in household income between urban and rural settlements, as shown in Table 2, when it comes to higher income levels. Looking at the upper-income category, approximately nine out of ten of households in this income category were from urban settlements for both periods. This is further evident in the high proportion of upper-income households in Gauteng, which is primarily urban.

We also note that the higher the income level, the lower the proportion of households in the rural areas in that income category. Although there were no significant differences in proportions of low-income households between urban and rural areas; however we see improvements in income levels of rural households for the period 2001 to 2011. There was a marginal decrease in the proportion of rural households in the low income category, from 47,6% in 2001 to 46,8% in 2011, but significant increases in the middle-income category from 17,6% in 2001 to 27,2% in 2011.

Table 2: Settlement type distribution of households by income categories (2001 and 2011)

	Proportion by income categories (%)							
	No income		Low income		Middle income		Upper income	
Settlement type	2001	2011	2001	2011	2001	2011	2001	2011
Urban	54,0	70,1	52,4	53,2	82,4	72,8	90,5	92,4
Rural	46,0	29,9	47,6	46,8	17,6	27,2	9,5	7,6

3.5 Distribution of households by socio-demographic characteristics of households

This section provides an analysis of the socio-demographic characteristics of all households according to the different income categories for 2001 and 2011. We will focus on household size and the demographic profile of the head of the household. Furthermore, we will also look at economic activity of the household head for 2011.

Table 3: Socio-demographic characteristics of households by income categories (2001 and 2011)

	Proportion by income categories (%)							
	No income		Low income		Middle income		Upper income	
Characteristics	2001	2011	2001	2011	2001	2011	2001	2011
Household size								
1	27,9	50,7	23,5	29,6	13,7	20,1	6,2	9,6
2 – 4	44,9	40,1	43,7	48,6	52,7	48,6	66,7	67,2
5+	27,2	9,2	32,8	21,8	33,6	31,3	27,1	23,3
Sex of household head								
Male	50,0	64,2	51,9	44,8	70,5	62,5	82,4	78,9
Female	50,0	35,8	48,1	55,2	29,5	37,5	17,6	21,1
Population group of household head								
Black African	93,8	86,6	89,3	92,3	52,8	75,7	18,6	34,1
Coloured	3,2	4,9	6,8	5,0	13,0	9,4	4,5	7,9
Indian/Asian	0,7	1,4	1,0	0,9	5,6	2,9	5,2	7,1
White	2,3	7,1	2,9	1,8	28,6	11,9	71,7	50,9
Age of household head								
Child (10 – 14 years)	0,5	0,4	0,1	0,4	*	*	*	*
Youth (15 – 34 years)	38,9	42,9	26,1	29,4	24,8	25,9	20,9	20,9
Adult (35 – 64 years)	57,6	52,2	52,8	54,6	63,7	58,1	72,4	71,6
Elderly (65+ years)	3,1	4,5	21,0	15,6	11,5	15,9	6,7	7,5

* Proportion is less than 0,1%

It is evident from Table 3 that household size has a strong influence on the level of income of a household. In 2011, half (50,7%) of households in the no-income category were single person households, a sharp increase from over a quarter (27,9%) in 2001. It would be interesting to further look into other characteristics of these one-person households in order to fully understand the factors contributing to this increase. In 2011, almost a third (29,7%) of these households resided in Gauteng (Note that this is not stated in the table though).

Households with two to four members were in the majority in the upper-income category. There have not been significant changes in income levels of these households (66,7% and 67,2% in 2001 and 2011 respectively).

Households with five or more household members also showed a similar trend, with a sharp decrease in households with no income, from over a quarter (27,2%) in 2001 to just below a tenth (9,2%) in 2011. Furthermore, these households showed minor decreases in the middle and upper income categories.

Table 3 shows that there was an equal distribution of male and female-headed households in 2001 in the no-income category. However, in 2011 there were more male-headed households in the no-income category than female-headed households, with 64,2% male-headed and 35,8% female-headed households.

In terms of income levels, we see that male-headed households did better compared to their female counterparts. The proportion of female-headed households in the low-income category surpassed that of male-headed households in 2011.

Table 3 shows that, despite the decreases, households headed by males dominated the middle and upper income categories. In 2011, more than six out of ten (62,5%) households in the middle income category and almost eight out of ten (78,9%) households in the upper income category were headed by males. However, we can see that female-headed households' income levels are increasing in both the middle and upper income categories. In the middle income category, the proportion of female-headed households increased from 29,5% in 2001 to 37,5% in 2011, and in the upper income category the proportion increased from 17,6% in 2001 to 21,1% in 2011.

Looking at the population group of the head of the household, the black African population group reported the highest proportion of households with no income, in 2001 nine out of ten (93,8%) of no-income households were headed by a black African person, and just below nine out of ten (86,6%) in 2011. Even though this proportion of black African headed households showed a decrease of 7,2 percentage points in 2011, Table 3 shows that the households headed by the other population groups showed an increase in proportions of households with no income. Households headed by white individuals showed the biggest percentage increase of 4,8 percentage points, from 2,3% in 2001 to more than double (7,1%) in 2011. This was followed by households headed by the coloured and Indian or Asian heads, with increases of 1,7 and 0,7 percentage points respectively.

The low-income households, however, showed an opposite trend to the no-income households. Whilst black African household heads were also the majority in the low-income category, their share of low income was further increasing. In 2001, 89,3% of low-income households were headed by black Africans, and in 2011 this figure increased to 92,3%. Households headed by coloureds, Indians or Asians and whites further decreased their share of low income households between 2001 and 2011.

Households headed by black Africans showed the biggest increase in the proportion of households in the middle-income category, from just over half (52,8%) in 2001 to almost three quarters (75,7%) in 2011. Households headed by coloured, Indian or Asian and white heads decreased their proportions of households in the middle-income category, with white-headed households reporting the biggest decrease, from 28,6% in 2001 to 11,9% in 2011. The coloured-headed households decreased from 13% in 2001 to 9,4% in 2011 and the Indian/Asian-headed households decreased from 5,6% in 2001 to 2,9% in 2011.

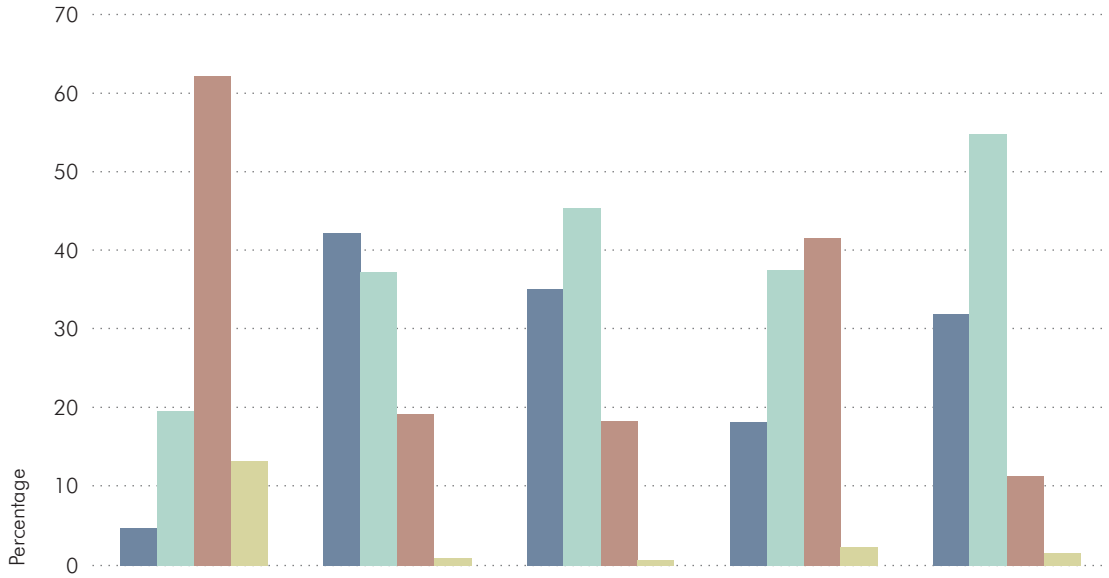
The upper-income category, unlike the previous income categories, was dominated by households headed by white individuals. In 2001, the majority of households with upper income had a white household head (71,7%). However, in 2011 just over half (50,9%) of all households with upper income were headed by white individuals. This is a decrease of 20,8 percentage points for white headed households. This drastic decrease in the proportion of white headed households in the upper-income category and the sharp increase in the no-income category is cause for further investigation into under- or no reporting on the income question by these households.

Households headed by black Africans showed the biggest increase in the upper-income category from 2001 to 2011, in 2001 roughly two in ten (18,6%) households were headed by black Africans and in 2011 this figure further increased to almost double (34,1%) in 2011. Households headed by coloureds and Indians or Asians also showed increases between the two periods (from 4,5% and 5,2% in 2001 to 7,9% and 7,1% in 2011 respectively).

The proportion of households headed by the different age cohorts remained stable between 2001 and 2011, with minimal changes. Households headed by adults were dominant in all levels of income, especially in the upper-income category. Despite the high proportion of adult-headed households with no income, there has been a marginal decrease from 57,6% in 2001 to 52,2% in 2011. The proportion of households headed by youth were on the increase from 38,9% in 2001 to 42,9% in 2011.

Figure 7 shows the significant differences in income categories of the households when taking into account the employment status of the head of the household. This also looks at the contribution of employment into the well-being of the households. In 2011, close to 95% of households headed by an employed person had some form of income at different income categories. The majority (62,3%) of households where the head was in employment were in the middle-income category, followed by 19,6% in the low-income category, and 13,3% in upper-income category. Again we see that those households with no, or low income are more likely to have a head that is unemployed, a discouraged work-seeker or not economically active. Close to 5% of the employed heads were reported to have no income in 2011. This requires further investigation as explained in the precautionary note as it is possibly misreporting.

Figure 7: Employment status of household head by income categories (2011)

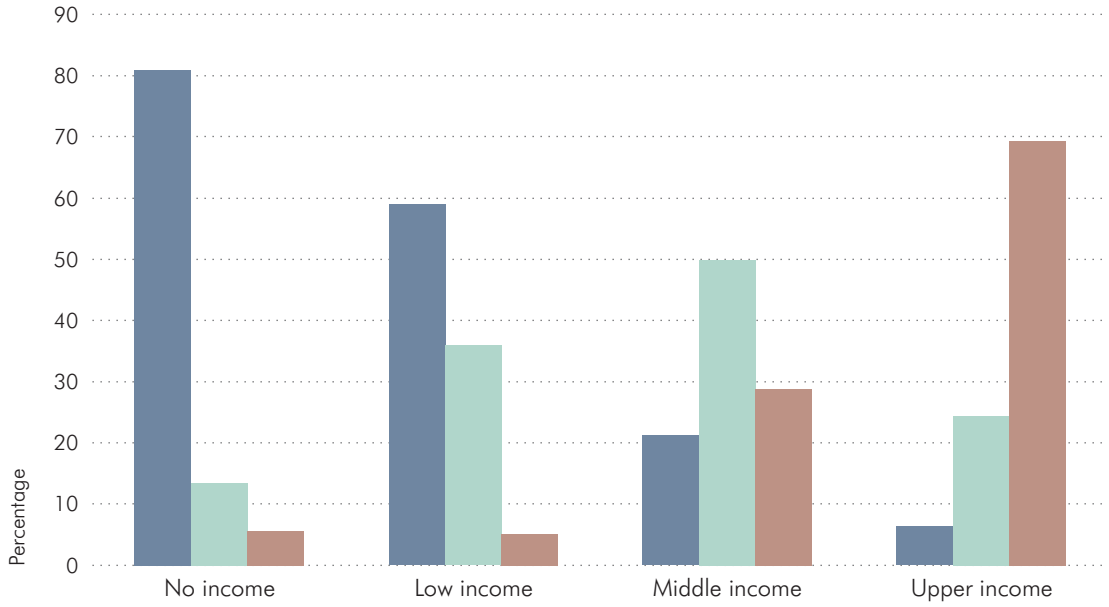


	Employed	Unemployed	Discouraged work-seeker	Not economically active	Age less than 15 years
No income	4,8	42,4	35,2	18,3	32,0
Low income	19,6	37,4	45,6	37,7	54,9
Middle income	62,3	19,3	18,5	41,7	11,5
Upper income	13,3	0,9	0,7	2,3	1,6

Figure 8 further looks at the employment situation and its contribution to income levels of households. This graph considers the proportion of adults who reported to be in employment per household in 2011. It is expected that the more the number of working individuals in a household, the more the income level of a household is likely to be. As expected, the highest proportion (69,3%) of households with upper income are in households where there is more than one person working in the household.

In contrast, households with unemployed household members contributed largely to the households with minimal or no income. Eight out of ten (81%) households where no person was employed were in the no-income category, and more than half (59%) of those households were in the low-income category. Households where one adult was working were dominant in the middle income category (49,9%). This shows the direct link between employment and income levels of households. We can also see the value of job creation as it serves as a key dimension of income.

Figure 8: Proportion of adults employed in the household by income categories (2011)



	No income	Low income	Middle income	Upper income
None	81,0	59,0	21,2	6,3
1 employed	13,5	35,9	49,9	24,3
2 or more employed	5,6	5,1	28,9	69,3

3.6 Dwellings, household goods and services of households

Table 4: Dwelling tenure status and characteristics of households by income categories (2001 and 2011)

Dwelling tenure status and characteristics	Income categories (%)							
	No income		Low income		Middle income		Upper income	
	2001	2011	2001	2011	2001	2011	2001	2011
Dwelling ownership								
Owned and fully paid off	45,2	40,2	42,8	49,1	37,1	41,8	31,1	26,9
Owned and not yet paid off	7,9	7,7	7,6	6,0	27,5	11,9	50,1	45,6
Rented	16,0	26,6	16,4	18,9	23,9	29,6	14,5	24,4
Occupied rent-free	30,9	21,7	33,2	26,0	11,5	16,7	4,2	3,1
Type of main dwelling								
Formal dwelling	53,3	69,4	61,5	69,2	86,9	82,2	94,8	97,5
Traditional dwelling	22,4	7,9	19,1	13,2	4,4	5,8	3,0	1,1
Informal dwelling	24,0	21,5	19,0	16,6	8,4	11,2	2,0	1,1
Other	0,3	1,1	0,3	1,0	0,3	0,9	0,2	0,3

Table 4 shows that in 2001, 45,2% of households in the no-income category occupied dwellings that they owned and fully paid off. In 2011, however, this proportion reduced to 40,2%. Households who rent their dwelling units had an increase in the percentage of households with no income from 16% in 2001 to 26,6% in 2011. Also, whereas in 2001, almost a third (30,9%) of households with no income occupied dwellings rent-free, this proportion reduced to 21,7% in 2011. The households in the low-income category also had a high proportion of households who owned their dwellings which were fully paid off (42,8% in 2001 and 49,1% in 2011).

Looking at the middle-income category, there was a significant decrease in the proportion of households who owned dwellings but had not yet fully paid them off, from over a quarter (27,5%) in 2011 to over a tenth (11,9%) in 2011. Households with dwellings not yet fully paid off were in the majority for households that were in the upper income category, despite the decrease. In 2001 half (50,1%) of households in the upper-income category we not yet fully paid off, in 2011 this figure reduced to less than half (45,6%). Also the proportion of households in the upper-income category who occupied dwellings rent-free were minimal (4,2%) in 2001 and further decreased (3,1%) in 2011.

Table 4 shows that there was an increase in the proportion of households living in formal dwellings, and this is evident for all income levels between 2001 and 2011, except for the middle-income category. In 2001, more than one out of every two (53,3%) households in the no income category resided in formal dwellings, and in 2011 close to seven out of ten (69,4%) of these households resided in formal dwellings. There was a significant decrease in the proportion of households in the no-income category living in traditional dwellings, from 22,4% in 2001 to 7,9% in 2011. There was also a minimal decrease in households residing in informal dwellings, from 24% in 2001 to 21,5% in 2011.

There were decreases in the proportion of households who live in traditional and informal dwellings in the no-income, low-income and upper-income categories. The middle-income category, however, saw increases in these proportions. This is mainly due to the improvements in the income levels of households who previously had lower income, but shows that these households have likely remained in the same types of homes. This is an indicator that access to housing is not moving at the same pace as the growth in income levels.

Table 5: Access to services for households by income category (2001 and 2011)

	Income categories (%)							
	No income		Low income		Middle income		Upper income	
Household services	2001	2011	2001	2011	2001	2011	2001	2011
Access to piped water								
Piped water inside dwelling	14,4	37,7	18,9	27,8	59,2	52,8	81,8	92,4
Piped water inside yard	29,0	28,6	33,4	32,0	24,7	27,3	9,6	4,5
Piped water outside the yard	32,3	24,1	28,4	26,5	10,9	13,2	5,8	1,8
No access to piped water	24,3	9,6	19,3	13,7	5,2	6,7	2,8	1,3
Toilet facilities								
Flush toilet (connected to sewerage system)	31,6	52,9	36,3	39,0	75,7	65,4	87,0	91,1
Flush toilet (with septic tank)	1,5	2,7	2,4	2,4	4,1	3,4	5,6	4,5
Chemical toilet	2,7	3,3	2,3	3,5	1,0	2,0	0,4	0,4
Pit toilet with ventilation (VIP)	7,2	9,3	7,2	13,0	3,0	7,4	1,1	1,1
Pit toilet without ventilation	30,1	21,7	29,1	27,6	10,8	16,6	3,0	2,3
Bucket toilet	5,6	3,2	5,1	2,7	1,8	1,7	0,5	0,2
None	21,2	6,9	17,6	8,6	3,6	3,4	2,3	0,5
Refuse disposal								
Removed by local authority at least once a week	41,4	60,5	43,6	45,6	78,6	68,7	88,7	91,7
Removed by local authority less often	1,7	1,6	1,6	1,5	1,4	1,6	1,0	1,2
Communal refuse dump	2,0	2,3	2,1	2,3	1,2	1,7	0,6	0,6
Own refuse dump	41,9	29,3	41,6	41,2	15,9	23,8	8,2	5,7
No rubbish disposal	13,0	6,3	11,1	8,3	2,9	4,2	1,5	0,8
Cooking energy/fuel								
Electricity	30,8	69,5	37,9	62,5	81,1	80,2	91,4	88,0
Gas	2,2	2,8	2,5	2,4	2,8	3,5	2,4	9,6
Paraffin	32,4	14,9	25,8	11,7	9,0	5,9	2,2	0,5
Wood	29,2	11,4	28,4	21,7	5,1	9,2	2,9	1,1
Coal	3,3	0,7	3,6	1,0	1,5	0,7	0,5	0,1
Animal Dung	1,5	0,3	1,3	0,5	0,3	0,2	0,3	0,1
Solar	0,2	0,2	0,2	0,1	0,2	0,2	0,2	0,2
Other	0,3	0,3	0,3	0,1	0,1	0,2	0,1	0,4
Heating energy/fuel								
Electricity	29,6	64,6	35,6	53,3	77,8	73,0	87,1	83,6
Gas	0,8	2,1	0,8	1,5	1,5	2,6	4,0	9,6
Paraffin	21,7	13,0	17,1	12,4	7,2	8,5	1,8	1,7
Wood	34,4	17,2	33,8	28,9	7,1	13,1	4,2	3,6
Coal	8,5	2,4	8,0	3,0	3,7	2,2	1,3	0,6
Animal Dung	1,2	0,4	1,0	0,6	0,2	0,3	0,2	0,1
Solar	0,3	0,3	0,2	0,2	0,2	0,3	0,2	0,7
Other	3,6	*	3,5	*	2,3	*	1,2	*
Lighting energy/fuel								
Electricity	54,2	78,6	61,8	77,5	90,0	89,4	96,0	98,4
Gas	0,3	0,3	0,3	0,3	0,2	0,2	0,2	0,2
Paraffin	10,4	4,7	8,5	4,1	2,4	2,1	0,9	0,2
Candles	34,9	16,1	29,1	17,7	7,3	7,9	2,7	0,8
Solar	0,2	0,3	0,3	0,4	0,2	0,3	0,2	0,3

* Proportion is less than 0,1%

Table 5 shows that there were improvements in access to household services across all income categories except the middle income category between 2001 and 2011. Households in the no-income category experienced significant improvements in the proportion of households with no access to basic services such as piped water (from 24,3% in 2001 to 9,6% in 2011), toilet facilities (from 21,2% in 2001 to 6,9% in 2011), and refuse disposal (from 13,0% in 2001 to 6,3% in 2011),. This speaks to the successes in improving service delivery between 2001 and 2011.

Households in the no-income category, however, had minimal access to piped water within their dwellings in 2001, with just 14,4% of them having with piped water inside their dwelling units. Nevertheless, access to piped water within the dwelling increased for this income category in 2011, to more than a third (37,7%) of all households. The proportion of households with no income who had access to piped water outside their dwelling units decreased by 8,2 percentage points between 2001 and 2011. In 2001 almost a quarter (24,3%) of households in the no-income category had no access to piped water, there was a drastic improvement in 2011, with less than a tenth (9,6%) of households with no income having access to no piped water. With regards to households in the upper income category, nine out of ten (92,4%) of households in this category had access to piped water inside their dwellings.

The same story can also be told with regards to access to toilet facilities. In 2001, more than two out of ten (21,2%) households with no income had no access to toilet facilities, in 2011 this proportion of households was reduced to 6,9%. At the other end of the spectrum, less than a third (31,6%) of households with no income had access to flush toilets connected to a sewerage system in 2001 and the proportion had increased to more than half (52,9%) in 2011. Households in the low-income category also had increases in access to toilet facilities, especially a flush toilet connected to a sewerage system (36,3% in 2001 and 39% in 2011), as well as other kinds of toilet facilities, and a reduction in the proportion of households with bucket toilets and no toilets.

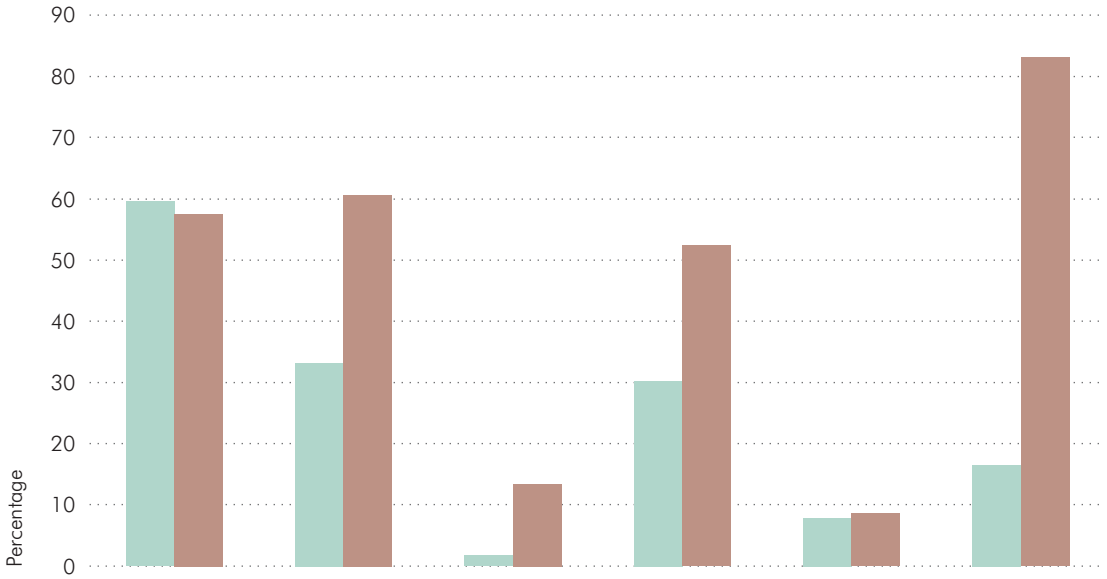
Households in the no-income category also saw an improvement in access to refuse disposal services from 2001 to 2011. Census 2011 found that more than six out of ten (60,5%) households with no income had their refuse removed by local authorities at least once a week, an improvement from four out of ten (41,4%) households in 2001. There was also a substantial decrease in households with no income who made use of own refuse dumps, from 41,9% in 2001 to 29,3% in 2011.

Access to fuel or energy sources for cooking, heating and lighting for households was very high, especially for the middle and upper-income categories. There were major increases also in the no-income and low-income categories between 2001 and 2011, especially with regard to access to electricity. In 2001, households in the no-income category mainly made use of paraffin as a cooking fuel (32,4%), followed by electricity (30,8%) and wood (29,2%). By 2011, the main source of energy for cooking was electricity (69,5%), and paraffin and wood had substantial decreases (14,9% and 11,9% respectively). The same trend can be observed with the increase on the use of electricity for heating and lighting purposes as well. In 2001 access to electricity for heating and lighting increased from 29,6% and 54,2%, to 64,6% and 78,6% respectively. The same trends apply to the low-income category.

Electricity has remained the major source of energy for the middle-income and upper-income categories between the two periods. However, it is interesting to note that there were decreases in both income categories, especially with regards to electricity for cooking and heating purposes. Furthermore, there were sharp increases in the use of gas for cooking and heating, especially for households in the upper-income category. The use of gas for cooking increased from 2,4% in 2001 to 9,6% in 2011, and for heating from 4% in 2001 to 9,6% in 2011. There was also an increase in the use of solar power for heating purposes for the upper-income category, from 0,2% in 2001 to 0,7% in 2011; although from an environmental perspective we hope to see much greater use of these types of energy sources in the future.

The following section looks at ownership of selected household goods which were in working order by households in different income categories. The selected household goods are the radio, television, computer, landline telephone and cellphones.

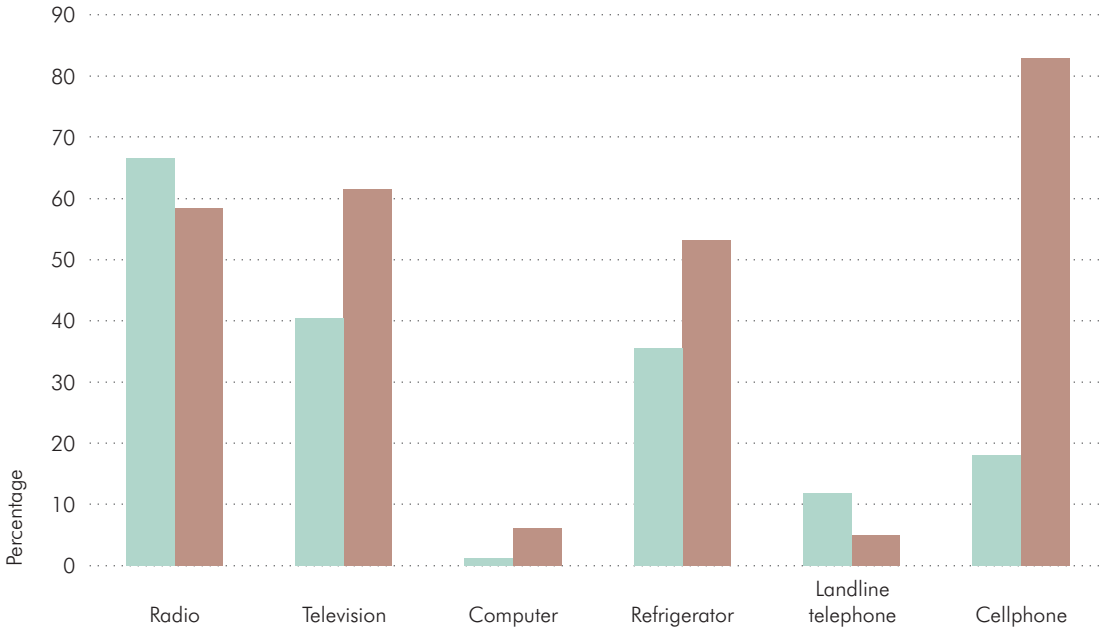
Figure 9: Proportion of households in the no-income category that owned selected household goods in working order (2001 and 2011)



	Radio	Television	Computer	Refrigerator	Landline telephone	Cellphone
2001	59,6	33,2	1,7	30,2	7,8	16,5
2011	57,5	60,6	13,4	52,4	8,6	83,1

Figure 9 above indicates selected goods owned by households in the no-income category in 2001 and 2011. In 2001, the asset with the highest proportion of ownership was radios, with close to 60% of all households in this category who reported owning a radio in working order. However in 2011, cellphones had the highest proportion, with more than eight out of ten (83,1%) of all households in the no-income category owning cellphones; this is a substantial increase in ownership of cellphones, from 16,5% in 2001. The rise in popularity and multipurpose nature of cellphones contributed to the decrease in demand for landline telephones. The ownership of televisions almost doubled by 2011, from 33,2% in 2001 to 60,6% in 2011.

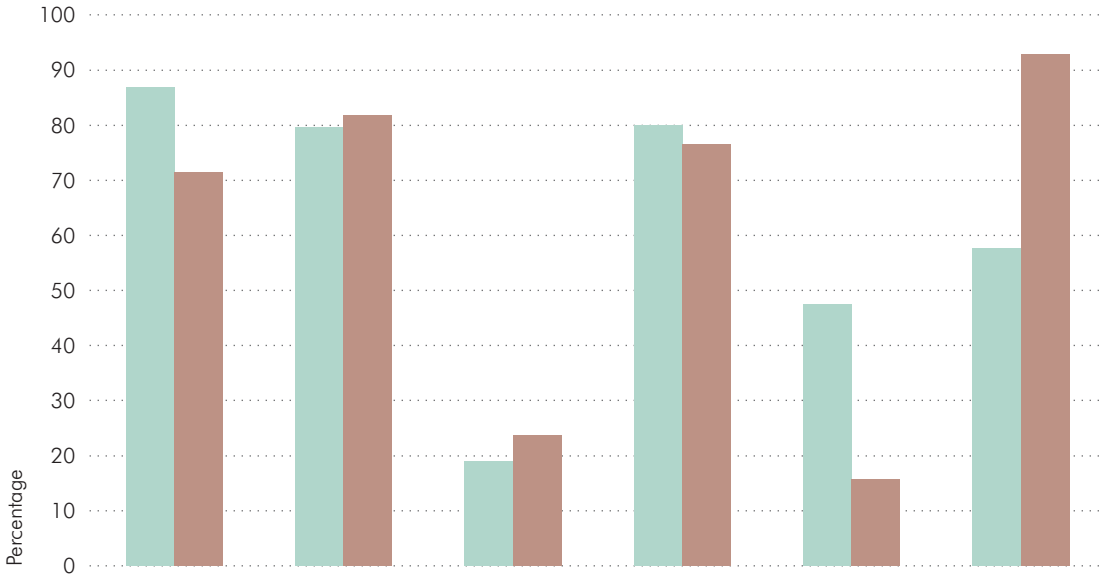
Figure 10: Proportion of households in the low-income category that owned selected household goods in working order (2001 and 2011)



	Radio	Television	Computer	Refrigerator	Landline telephone	Cellphone
2001	66,7	40,5	1,3	35,5	11,8	18,1
2011	58,4	61,6	6,1	53,3	5,0	82,9

Figure 10 shows that the majority of households in the low-income category owned radios (66,7%) in 2001. However, as seen with the no-income group, in 2011 households in the low-income category had experienced a substantial increase in cellphone ownership from 18,1% in 2001 to 82,9% in 2011. This further shows that ownership of cellphones is not dependent of households' income levels.

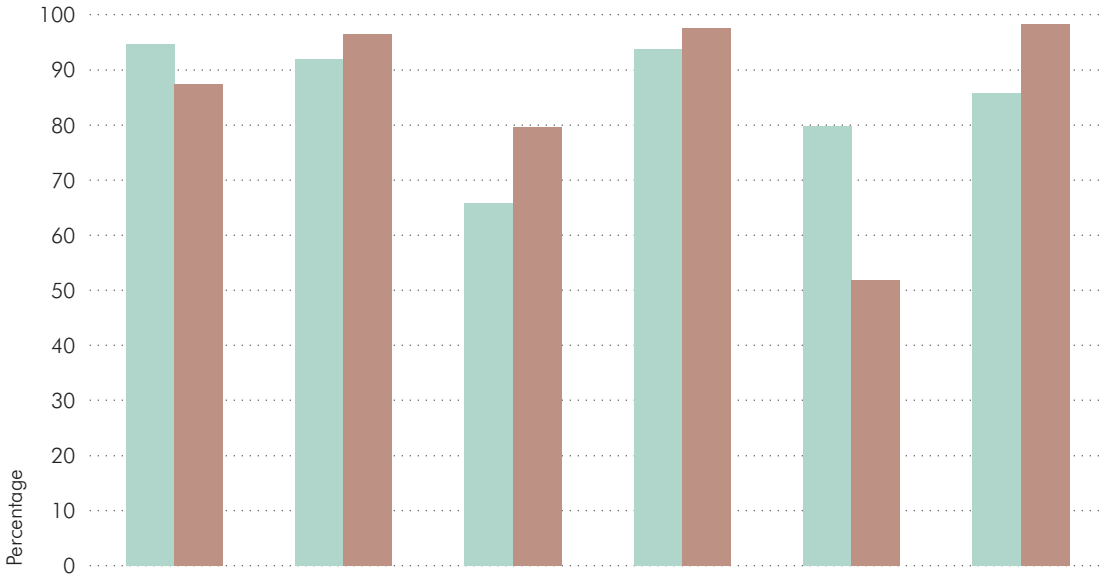
Figure 11: Proportion of households in the middle-income category that owned selected household goods in working order (2001 and 2011)



	Radio	Television	Computer	Refrigerator	Landline telephone	Cellphone
2001	86,9	79,7	19,0	80,1	47,5	57,7
2011	71,4	81,9	23,8	76,5	15,8	92,9

In 2001, the majority of households in the middle-income category owned radios, television sets, refrigerators and cellphones. In 2011 there were further growths in ownership of cellphones, from almost six out of ten (57,7%) of the households in 2001 to over nine out of ten in 2011. The ownership of landline telephones dropped from 47,5% in 2001 to 15,8% in 2011. See Figure 11.

Figure 12: Proportion of households in the upper-income category that owned selected household goods in working order (2001 and 2011)



	Radio	Television	Computer	Refrigerator	Landline telephone	Cellphone
2001	94,6	91,9	65,8	93,6	79,8	85,7
2011	87,3	96,4	79,5	97,4	51,7	98,2

All of the goods listed in Figure 9 to Figure 11 were owned by the majority of households in the upper-income category in both periods (Figure 12). The upper-income category was the only income category which had a high proportion of ownership of computers in 2001 (65,8%) and 2011 (79,5%).

3.7 Summary of findings on the income data

This income and poverty monograph looked at income distribution between two census periods, 2001 and 2011. The focus of the monograph is household income rather than individual income. The distribution of income was studied at different geographic levels, as well as based on characteristics of household members, dwellings characteristics, access to basic services and ownership of goods. The levels of income were divided into four categories: the no-income, low-income, middle-income and upper-income categories.

A high percentage of households reported to have no income, 23,2% in 2001 and 15,5% in 2011. Due to this high percentage, these households cannot be disregarded in the analyses, and information into their location and characteristics is important to understand their circumstances.

Approximately four out of ten (42,4%) of households in South Africa reported to be in the low-income category in 2001, but this percentage decreased to 29% in 2011.

Improvements in income levels of South African households were further evident in increase in the percentage of households in the middle and upper-income categories. In 2011, close to half (48,3%) of all households were in the middle-income category, a major improvement from almost a third (32,3%) in 2001. Households in the upper income category also grew from just 2,1% in 2001 to 7,1% in 2011.

Looking at the provincial distribution of these households, Gauteng and KwaZulu-Natal featured prominently in all income categories, mainly due to the high population size in the two provinces. However, as income levels increase, we note the Western Cape households' percentages increase, especially in the upper-income category.

It is also interesting to note that Gauteng and Western Cape had significant increases in the proportion of households with no income, with increases of 9,3 and 4,8 percentage points respectively in 2011. This further requires an investigation into the contribution of these two provinces into the known tendency of households with high income levels to be reluctant in divulging information about their income.

Despite the decrease in the overall percentage of households in the low-income category in 2011, there were provinces that reported increases. The percentage of low-income households in Limpopo increased from 12,5% in 2001 to 14,1% in 2011. There were minor increases reported also for KwaZulu-Natal, Eastern Cape and Mpumalanga. This aligns with the poverty statistics as these are some of the poorest provinces.

The middle-income category also had interesting changes. Gauteng, KwaZulu-Natal and Western Cape had the highest percentages of households in this category. However all three provinces showed decreases between 2001 and 2011. The increases were reported for all the other six provinces.

Gauteng and Western Cape collectively accounted for the majority of households in the upper-income category. Gauteng had the highest proportion of households in the upper-income category for both 2001 and 2011, with more than half of all households (51,8%) in this category residing in Gauteng in 2001, and a decline in this proportion in

2011 to 45,5%. Households in Western Cape followed with 17% and 17,3% in 2001 and 2011 respectively.

Looking at composition of the households as well as the demographic characteristics of household members, we also see major differences in the characteristics of households and their income levels. In 2011, more than 50% of all households in the no-income category were one-member households. Households with two to four members accounted for the highest proportion of households with upper income, 66,7% and 67,2% in 2001 and 2011 respectively. Male-headed households were also doing better in terms of income levels compared to female-headed households.

Looking at the population group of the head of the household, approximately 90% of households in the no-income and low-income categories were headed by black Africans. Despite this dominance, there has been rapid growth in the income levels of households headed by black Africans. The percentage of households headed by black Africans grew from 52,8% in 2001 to 75,7% in the middle-income category in 2011, and from 18,6% to 34,1% in 2011 in the upper-income category. It is interesting to note also that households headed by whites, having been dominant in the upper-income category, reported a decrease from 71,7% in 2001 to 50,9% in 2011.

Households headed by adults were better-off in terms of income levels compared to households headed by children, the youth and the elderly. Of all households in the upper-income category, more than 70% were headed by adults. There were also no major differences in income levels of the different age groups between 2001 and 2011.

There has been improved access to formal housing and basic services in South Africa, especially for the poor. This is evident in the increased proportion of households who own dwellings, have access to piped water, toilets facilities, etc.

The impact of income levels is also evident in the dwelling characteristics of households. The higher the income level the more likely the household is to live in a formal dwelling. In 2011, approximately 98% of households in the upper-income category resided in formal dwellings. This also applies to dwelling ownership, which also increases with income level.

Access to basic services relates to access to piped water, toilet facilities, refuse disposal and energy or fuel for cooking, lighting and heating. As expected, we see that the higher the income of the household the more accessible the household services. More than 90% of households in the upper-income category had access to piped water within their dwellings, flush toilets connected to a sewerage system, and had their household refuse removed by the municipality at least once a week. However, looking at the middle-income category, we see a slight decline in the proportions in 2011. This is due to the pace of income growth into this category not being equal to the delivery to household services.

Generally there were increases in proportions of households with improved household services for households in the no-income category. Looking at access to piped water, in 2001 the majority of households in the no-income category (32,3%) had access to piped water outside their yards. In 2011, however, the majority of households in the no-income category (37,7%) had access to piped water inside their dwellings. There were

also significant decreases in the proportion of households with no access to piped water, from 24,3% in 2001 to 9,6% in 2011. This trend is also evident in other services such as toilet facilities, and refuse disposal.

The use of electricity for cooking, lighting and heating followed the same trend as access to piped water, toilet facilities and refuse disposal. However, for the upper-income category, the use of other forms of energy, such as solar and gas, has increased, especially for heating and cooking.

A majority of households in the upper-income category had access to most of the goods where households in low-income categories had access to some in bigger proportions than some.

The ownership of cellphones was dominant for all income categories. In 2011, cellphones were owned by a majority of households, irrespective of the income category of the household, whereas in 2001 cellphone ownership was only dominant in the middle-income and upper-income categories. In 2001 ownership of cellphones stood at 16,5% for households in the no-income category, in 2011 eight out of ten (83,1%) of households in the no-income category owned cellphones. The ownership of radios, however, decreased for all income categories.

The monograph is a comparison between two census periods, 2001 and 2011. Therefore information is limited to variables common between the two time periods. Census 2011 had more variables that would have added value to the monograph, but had to be excluded for purposes of this report due to comparability issues. Furthermore, extension of response categories within common questions between 2001 and 2011 was also a problem in the analysis of the data.

4. Limitations of the income variable

The household income variable analysed in this monograph had a high proportion of households that reported to have no income, 23,2% in 2001 and 15,5% in 2011. Household income in the census is defined as all receipts by all members of a household, in cash or in kind, in exchange for employment, or in return for capital investment, or receipts obtained from other sources such as pension. Therefore, given the wide definition of income source, in reality there should be no household that has no income.

Generally income is a problematic variable in data collection, this is due to a number of possible reasons.

From the literature review, we know that income is one variable that is prone to item non-response, which occurs when respondents refuse to answer specific questions (Riphann and Serfling. 2002) (Meyer and Sullivan. 2012). Respondents are also likely to under-report their income levels. This could be intentional, for example where there are difficult respondents who deliberately do not divulge information on income due to the sensitive nature of the question. Literature has shown that the likelihood of an income question not being answered in a questionnaire increases with the level of income of the respondent (Korinek, Mistiaen and Ravallion, 2005). High-income households are less likely to participate because of a high opportunity cost of their time or concerns about intrusion in their affairs. This concern is also complicated by the misplaced fear that the information given might be shared with taxation authorities.

The issue of difficult respondents is generally reflected in the Census 2001 and 2011 data when looking at variables such as employment and ownership of dwellings and assets. The proportion of individuals who get paid in kind as a form of remuneration for employment should be very minimal. Again in a normal situation it is not expected that households that report no income in turn report renting dwellings or owning a number of assets in high proportions.

Some respondents may unintentionally under-report their income levels. Respondents who genuinely have no income because they do not receive any cash at hand or monetary compensation, but receive income in-kind (such as food, assets, etc) from other households or those who receive irregular income may be inclined to reply 'no source of income' when asked if they receive any income. Emphasis is therefore further placed here on the role of fieldworkers in their understanding of income and the way the question of income is posed to respondents.

In the Census 2011 questionnaire, the income question was asked as follows:

> *What is the income category that best describes the gross monthly or annual income of …… before deductions and including all sources of income?*

Therefore, depending on the way the question is posed, or even translated from English to other languages, income may be simply equated to salary/ wages. If fieldworkers are not specifically warned of this common error and also trained to probe further about social grants, maintenance, other income as well as income in-kind, this could contribute to the high level of zero income data being reported.

As a way of sourcing income data, the reporting of "sources of income" by respondents (which indicates where they obtain their income from) is valuable. Therefore, an extensive list of possible income sources can be listed on the questionnaire and respondents asked to choose the sources of income that apply to them. This approach serves as a reminder for respondents about income that they would not traditionally define as income, and it also reduces the burden on the fieldworker to probe on a detailed list of income sources.

In the war against poverty and unemployment in South Africa, it is important to know where households obtain their sources of livelihood, especially where a high number of households depend on grants as their only source of income. The ambiguity relating to equating income to salaries/wages can be avoided.

Therefore readers are cautioned to take into consideration the challenges around the collection of income data and the limitation of the no-income category as they go through this report.

5. Exploring poverty

5.1 Introduction

In the previous section we have looked at the data from the income question and profiled the distribution of households across different income categories. We also looked at the changes from Census 2001 to Census 2011. We now turn our focus to the measurement of poverty using Census data and begin with the use of the income question as a proxy for a poverty measure. We will then look at a multidimensional poverty index before concluding this section with a comparison of the two approaches in terms of the resultant poverty profiles.

5.2 Income as a poverty measure

As mentioned above, income and/or expenditure are the most commonly used proxies for measuring poverty. From an absolute perspective, a minimum threshold is established below which a household or individual would be classified as living in poverty (in other words, living below the poverty line).

Statistics South Africa has developed a series of three national poverty lines. These lines have been developed from detailed information on household consumption patterns gathered through the Income and Expenditure Survey (IES). The poverty lines are related to the consumption expenditure of a household (including in-kind expenditure, where a household may acquire or receive something without actually paying for it) and are calculated on a per capita basis with all individuals in the household assumed to have an equal share of the expenditure.

For the purposes of this report, we will focus on the food poverty line – this is the threshold below which individuals are said to have insufficient consumption expenditure to cater for their daily dietary requirements. In 2011 prices, the food poverty line was set at R321 per person per month. To compare the poverty levels and profiles generated using Census 2011 data, we have used data gathered from a household survey during a similar point in time – the IES 2010/2011. It is important to note, however, that the data from Census 2011 relates to income, while the comparative data from the IES 2010/2011 relates to expenditure.

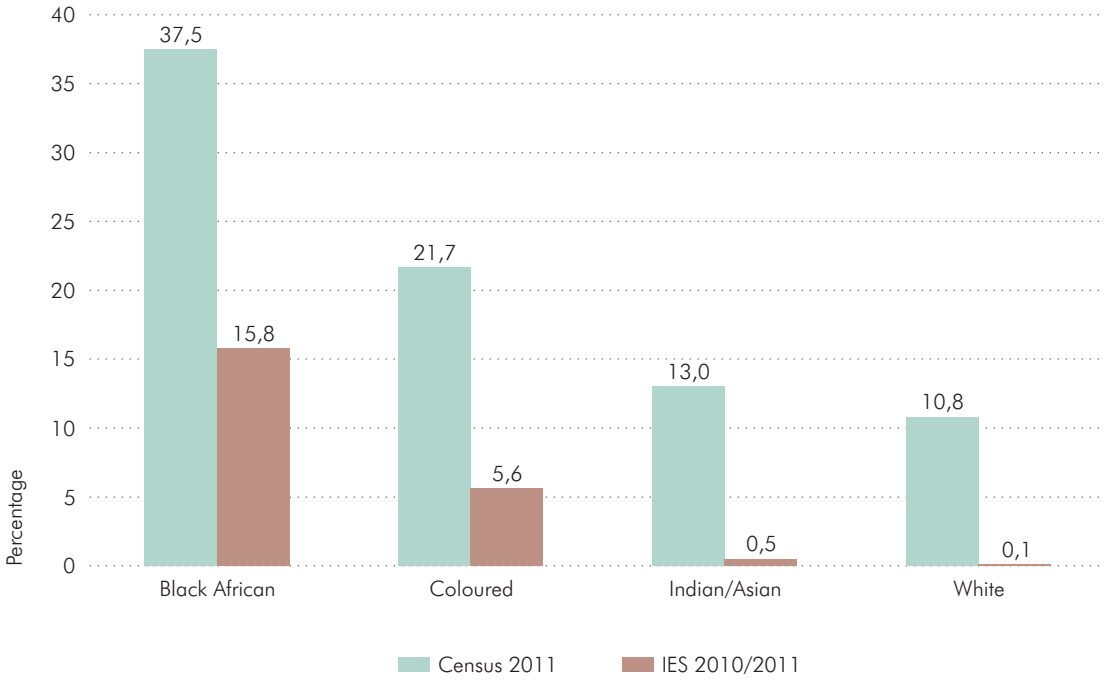
As outlined in the Census 2011 Metadata report, annual household income is a derived variable using the income of each individual in the household. Because the individual income question was recorded in categories rather than in actual figures, a proxy value was allocated to each category (see Census 2011 Metadata report, p.51). The annual income for households was then calculated by adding together the individual incomes of all members of the household, and a per capita figure was derived by dividing the total household income by the household size.

Using the income data from Census 2011, we found that approximately one in three (32,7%) households in South Africa were living below the food poverty line. This is in stark contrast to the findings of the IES 2010/2011 where approximately one in eight (12,6%) households were seen to be below that level. The difference between the two findings is a staggering 20 percentage points (or, alternatively, the levels of poverty according to Census 2011 were 160% higher than the levels according to the IES 2010/2011).

These higher levels of poverty according to Census 2011 were found across different demographic and geographic variables. Male-headed households showed poverty levels 216% higher in Census 2011 – while the IES 2010/2011 found that less than one in ten (9,0%) male-headed households were living below the food poverty line, Census 2011 put this proportion at more than one in four (28,4%) households. The increase in poverty levels for female-headed households, while not as large as for male-headed households, was also significant at 114% (Census 2011 found 38,9% of female-headed households to be below the food poverty line as compared with the IES 2010/2011 proportion of 18,2%).

Figure 13 shows the higher levels of poverty according to Census 2011 across all population groups. What is particularly noteworthy is that, according to Census 2011, more than one in ten households headed by both whites (10,8%) and Indians/Asians (13,0%) were living below the food poverty line. This is a stark difference from the low levels of poverty measurement in these population groups.

Figure 13: The proportion of households living below the food poverty line by population group of household head



While the levels of poverty were greater according to Census 2011 across the provinces and across different settlement types, the differences were more marked in some areas than in others. As can be seen in Table 6, Western Cape and Gauteng showed the highest levels of increase, with Census 2011 reporting that levels of poverty were 538% higher in Gauteng and 480% higher in Western Cape than what the IES 2010/2011 had found. As a result of these increases, according to Census 2011, approximately one in four households in Gauteng (26,8%) and Western Cape (23,2%) were living below the food poverty line. We should also note that for households with no income, significant increases were reported for Gauteng and Western Cape.

Table 6: The proportion of households living below the food poverty line by province and settlement type as measured by IES 2010/2011 and Census 2011

	IES 2010/2011 (%)	Census 2011 (%)
Western Cape	4,0	23,2
Gauteng	4,2	26,8
Free State	11,3	31,6
Mpumalanga	12,8	35,3
Northern Cape	13,0	28,2
North West	14,8	33,4
KwaZulu-Natal	18,0	37,4
Eastern Cape	19,8	40,5
Limpopo	23,7	41,5
Urban	7,0	27,8
Rural	24,3	43,1

At the other end of the scale, the levels of poverty in Limpopo were 75% higher, with the proportion of poor households having grown from 23,7% in the IES 2010/2011 to 41,5% in Census 2011. Urban-based households showed larger increases in poverty according to Census 2011 than those based in rural areas. While poor households had grown by 77% in rural areas, the increase in urban areas was significantly higher at 297%. As a result, according to Census 2011, more than one out of every four (27,8%) urban households were living below the food poverty line.

So why the large differences in the levels of poverty between data collected more or less at the same time? It is highly unlikely that the poverty situation would have deteriorated so drastically from the one data collection period to the next. Is it rather because one measure is based on income data and another is based on expenditure? Or is it because the data from one was collected from all households in the country and the other was a sample survey which used the previous census as its sample frame? Both of these factors would undoubtedly result in some variation between the observed levels of poverty from the IES 2010/2011 and those from Census 2011. However, neither of these factors would account for the significant variations between the poverty measures from these two data sources which have been profiled above.

The main problem lies in the accurateness of the income data generated by Census 2011. At an aggregated level, if one were to compare average household income across the two data sources, the differences were not as accentuated. For example, Census 2011 found the average household income in South Africa to be R103 204, while the IES 2010/11 put the average at R99 992 (excluding imputed rent). An analysis by sex, population group and province showed similar average household income across Census 2011 and the IES 2010/11 (the higher differences at a population group level could be largely a result of the relatively low sample size of Indian/Asian, and white households in the IES).

Table 7: Average household income by sex and population group of household head and by province

	IES* 2010/11 (R)	Census 2011 (R)	Census 2011 vs IES 2010/11 (%)
South Africa	**99 992**	**103 204**	**3,2**
Sex			
Male	126 859	128 329	1,2
Female	58 634	67 330	14,8
Population group			
Black African	60 663	60 613	-0,1
Coloured	123 118	112 172	-8,9
Indian/Asian	209 149	251 541	20,3
White	304 667	365 134	19,8
Province			
Western Cape	139 147	143 460	3,1
Eastern Cape	61 745	64 539	4,5
Northern Cape	96 497	86 175	-10,7
Free State	80 823	75 312	-6,8
KwaZulu-Natal	85 152	83 053	-2,5
North West	87 563	69 955	-20,1
Gauteng	144 562	156 243	8,1
Mpumalanga	86 963	77 609	-10,8
Limpopo	49 153	56 844	15,6

*Excludes imputed rent

However, as the preceding chapter has shown, the income data from Census 2011 significantly overestimated the proportion of households that claimed to have no income. This in turn resulted in the higher levels of poverty found using Census 2011 data. This situation was the result of a combination of factors. There were undoubtedly households which – either through fear or ignorance or both – chose not to disclose their incomes. There were also insufficiently trained fieldworkers that were not able to explain the purpose of the question or how to answer it. And finally, there were also

instances of "respondent fatigue", where the amount of information that Census 2011 sought to elicit caused some households to only partially complete the questionnaire. This highlights the need to use household expenditure surveys like the IES and LCS to conduct money-metric poverty measurement as these are specialised tools that are designed to produce such statistics.

5.3 Creating a multidimensional poverty measure

In the absence of comprehensive and accurate income data, an alternative approach to profiling poverty using Census 2011 data is through the use of non-money metric data. As indicated in Section 2.4 above, a multidimensional poverty index (MPI) has been developed by Statistics South Africa, along the lines of the global MPI developed for the UNDP by the Oxford Poverty & Human Development Initiative (OPHI), based at Oxford University.

The global MPI is an international measure of acute poverty that captures the severe deprivations that each person and/or household faces using ten indicators across three dimensions of education, health and living standards. Rather than being touted as a replacement of money-metric measures of poverty, the MPI is a complementary measure. The methodology, which shows the different aspects in which the poor are deprived, also helps to reveal the interconnections among those deprivations and therefore, allows policy-makers to respond to the plight of the poor more appropriately and more effectively.

There is always debate as to whether the correct domains and indicators are being used in the construction of the index. The South African Multidimensional Poverty Index (SAMPI) was constructed within the following confines:

- The existence of the global MPI – where possible and appropriate, the dimensions and indicators of the global MPI have been used.

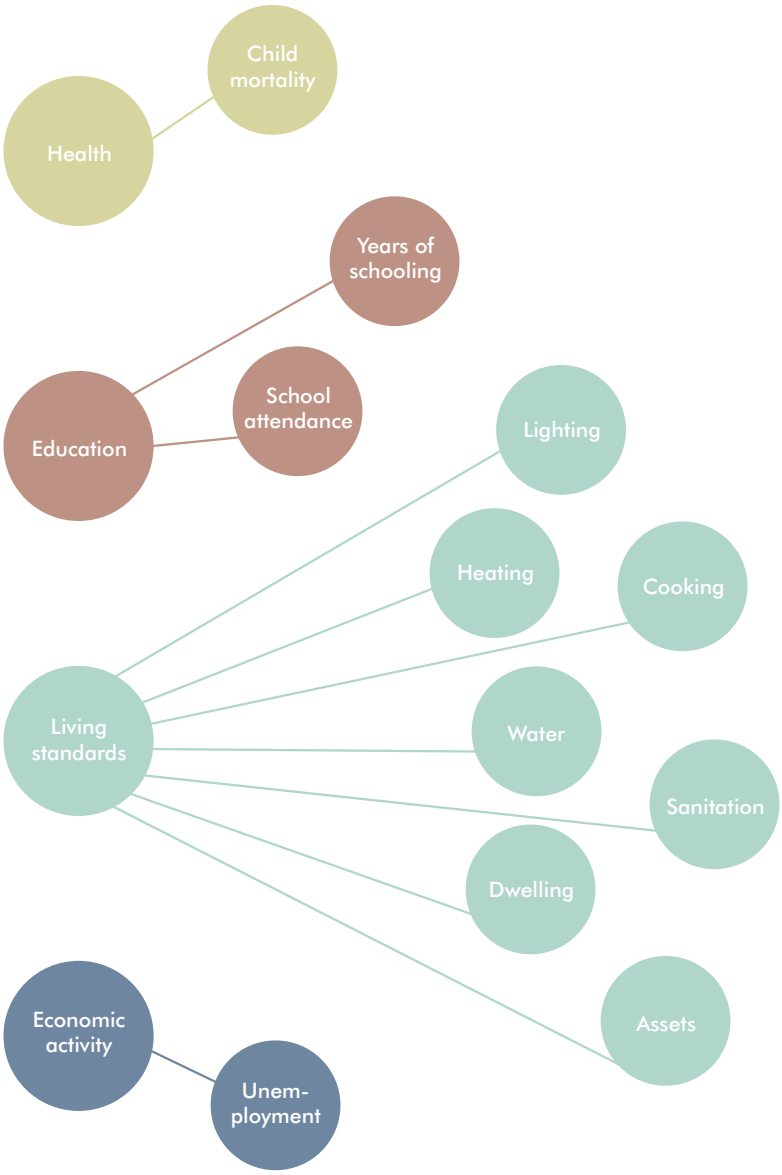
- The need to domesticate the global MPI – while the global MPI has been developed primarily to allow for comparisons across countries, the architects advocate the development of national indices that reflect local conditions.

- The availability of data – the SAMPI was developed out of census data and sought to demonstrate the change that has taken place in the life circumstances of South Africans from Census 2001 to Census 2011. As a result, the development was constrained by the limited data items common to the two censuses.

- The suitability and robustness of the available data items – a process of exploration, confrontation and consultation led to the finalisation of the data items to be used in the construction of the index.

These parameters resulted in the SAMPI being constructed across four dimensions – health, education, living standards and economic activity – with eleven indicators.

Figure 14: The dimensions and indicators of SAMPI



As with the global MPI, the SAMPI has adopted a nested weighting approach where all dimensions are weighted equally and the indicators within each dimension are weighted equally. The weights are summarised in the following table:

Table 8: The dimensions, indicators and their weights

Dimension	Indicator	Weight
Health	Child mortality	1/4
Education	Years of schooling	1/8
	School attendance	1/8
Standard of living	Lighting	1/28
	Heating	1/28
	Cooking	1/28
	Water	1/28
	Sanitation	1/28
	Dwelling	1/28
	Assets	1/28
Economic activity	Unemployment (all adults)	1/4

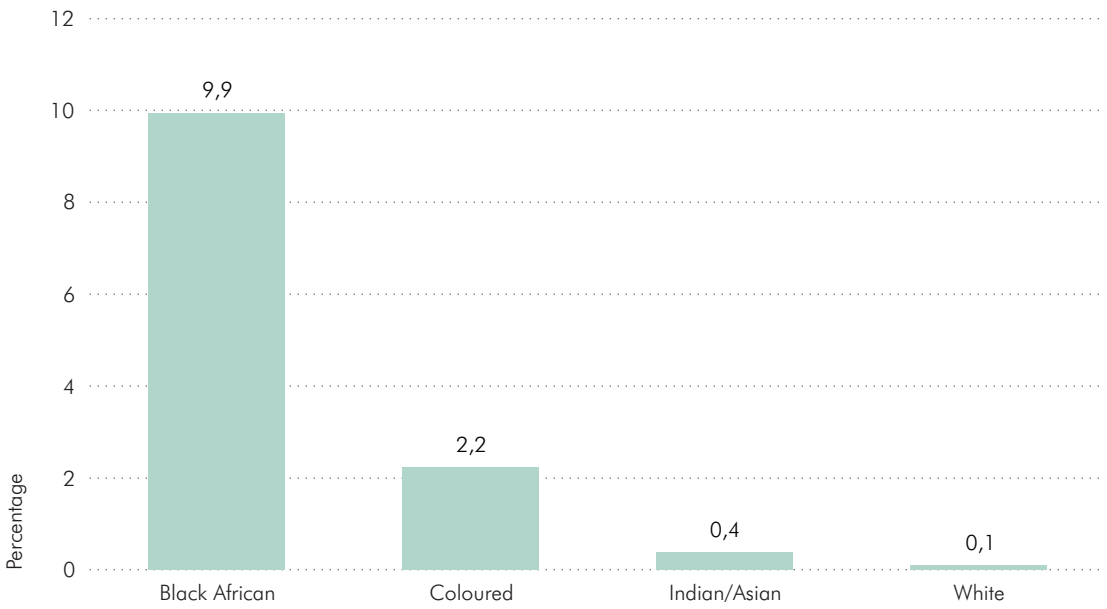
A deprivation score based on these weights is allocated to each household, where applicable, for each indicator and a composite score is derived. The SAMPI then defines a household as poor along the same lines as the global MPI; in other words, it is defined as multidimensionally poor if the composite score is equal to or above 33,3%. At an aggregated level, the SAMPI score is then derived from the product of the headcount, known as H (the proportion of households defined as multidimensionally poor) and the intensity of the poverty experienced, known as A (defined as the average proportion of indicators in which poor households are deprived).

Table 9: Poverty measures for Census 2011

Headcount (H)	Intensity (A)	SAMPI (HxA)
8,0%	42,3%	0,03

Census 2011 found that 8,0% of households were multidimensionally poor – thus translating into approximately 1,2 million households. The average intensity among poor households was 42,3%, resulting in a SAMPI score of 0,03. Male-headed households were slightly less likely to be poor than female-headed households – the headcount for male-headed households was 7,5% as opposed to 8,7% for female-headed households.

Figure 15: Multidimensional poverty headcount by population group of household head



One in ten (9,9%) households headed by black Africans were found to be poor, while this was true for only 2,2% of households headed by coloureds and very small proportions of households headed by Indians/Asians (0,4%) or whites (0,1%).

Table 10: Poverty headcount by province and settlement type

	Headcount (H)
Eastern Cape	14,4
KwaZulu-Natal	10,9
Limpopo	10,1
North West	9,2
Mpumalanga	7,9
Northern Cape	7,1
Free State	5,5
Gauteng	4,8
Western Cape	3,6
Urban	5,0
Rural	14,3

Eastern Cape had the highest proportion of multidimensionally poor households at 14,4%, followed by KwaZulu-Natal (10,9%) and Limpopo (10,1%). At the other end of the scale, Gauteng (4,8%) and Western Cape (3,6%) had the lowest proportions of poor households. As one would expect, rural households (14,3%) were almost three times as likely to be poor than their urban counterparts (5,0%).

5.4 Overlap between SAMPI and income poverty

Gunther and Klasen (2007: p2) argue that identifying poor households according to both a money-metric approach and a multidimensional approach would identify those households "who could thus possibly be the most deprived and arguably the most deserving of support." They go on to argue that, "conversely, if the two approaches fail to converge in identifying the chronic poor, we would learn more about the dynamic relationship between income and non-income poverty."

Using Census 2011 data to explore the overlap between income and non-income poverty is problematic, precisely for the reasons argued above that the income data is not as robust as it should be, particularly as it pertains to the very high number of households who claimed to have no income. Nevertheless, we still find significant overlap between those classified as multidimensionally poor and those who report no income – almost three-quarters (72,6%) of the multidimensionally poor households were found to have no income. These 840 000 households are arguably, as Gunther and Klasen state, the most deprived in the country and most in need of targeted intervention.

Looking at the demographics of these most deprived households in the country, we found that the majority (55,4%) were headed by males and the vast majority (97,8%) were headed by black Africans. Only 1,9% of these very poor households were headed by coloureds with the remaining small proportion headed by whites (0,1%) or Indians/Asians (0,1%). More than half (54,1%) of these households were found in rural areas with the remaining 45,9% found in urban areas.

Table 11: Distribution of the most deprived households by province

	Household distribution in SA (%)	Distribution of most deprived households (%)
KwaZulu-Natal	17,6	22,4
Eastern Cape	11,7	19,0
Gauteng	27,1	17,7
Limpopo	9,8	13,5
North West	7,3	8,2
Mpumalanga	7,4	7,5
Western Cape	11,3	5,9
Free State	5,7	4,0
Northern Cape	2,1	1,7

Table 11 shows that most deprived households were over-represented in KwaZulu-Natal, Eastern Cape and Limpopo when compared with the distribution of all households in the country. Almost a quarter (22,4%) of the most deprived households were found in KwaZulu-Natal with a further fifth (19,0%) in Eastern Cape. Despite the low poverty headcount in Gauteng across both approaches, the high number of households overall meant that Gauteng had the third highest number of most deprived households in the country at 17,7%. As one would expect given the small number of households in the province, Northern Cape was home to only 1,7% of the most deprived households.

While there is overlap, there are also households that are poor only according to one of the approaches. In this context, it is important to reiterate that the multidimensional approach to profiling poverty should be used as a complementary measure to the profiling of poverty from a money-metric perspective. It is highly unlikely that the two approaches would identify the same universe of poor households, especially in the context of the social wage provided by the state where many of the indicators used in the multidimensional approach are at the heart of the free basic services and goods provided to the poor.

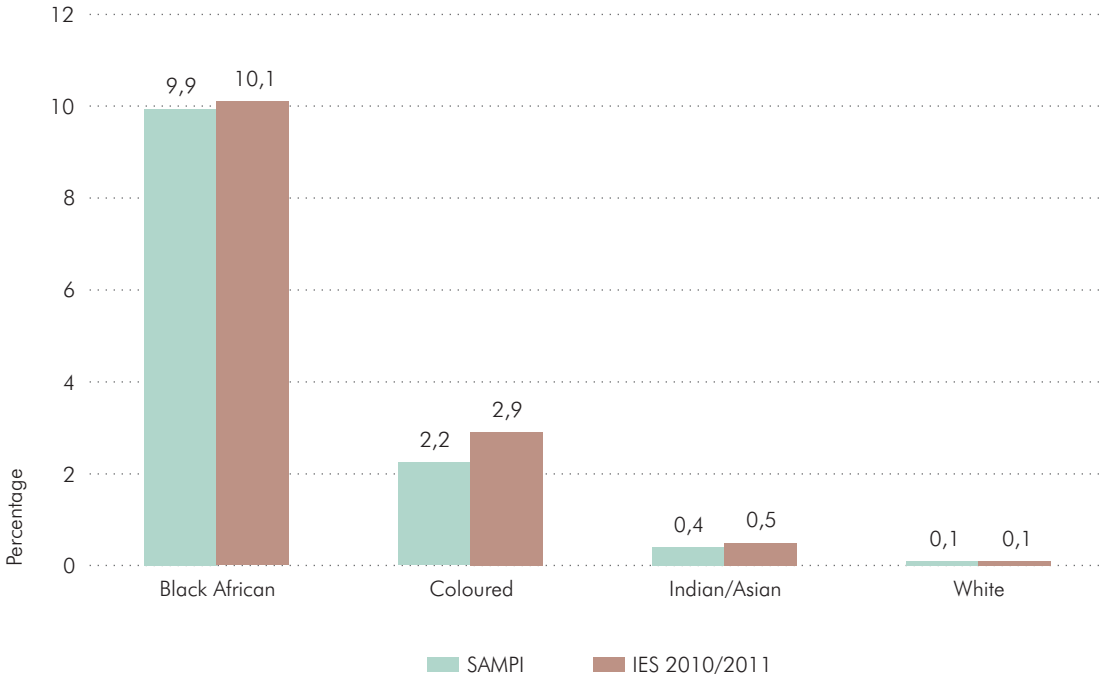
But the question still arises as to the difference between the poverty profiles generated for the country by the two approaches. In the absence of comprehensive and robust income data in Census 2011, we have used the IES 2010/2011 data to compare these profiles. In order to generate a household headcount of 8,0%; a poverty line of R257,26 per person per month was applied.

Table 12: Comparing poverty profiles by sex of household head

	% SAMPI poor (Census 2011)	% income poor (IES 2010/2011)
Male	7,5	5,8
Female	8,7	11,4

As can be seen in Table 12, both approaches highlight the more disadvantaged position of female-headed households although the difference in levels of poverty is more pronounced according to the money-metric approach. When looked at by population group, the resultant profiles are very similar across the two approaches.

Figure 16: Comparing poverty profiles by population group of household head

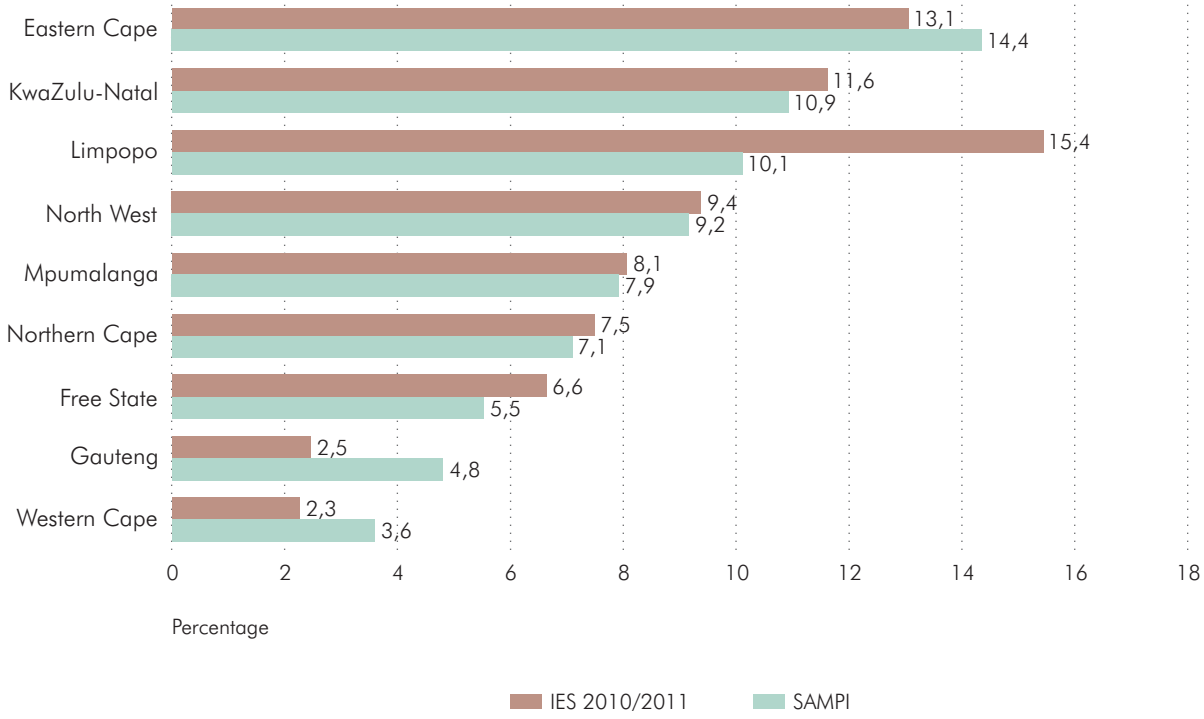


According to both approaches, approximately one in ten households headed by black Africans were poor, while a small proportion of households headed by Indians/Asians or whites were found to be poor. As Figure 16 shows, the IES 2010/2011 found slightly higher levels of poverty among coloured-headed households (although the small difference could be discounted by the margin of error resulting from the sample size in the IES 2010/2011).

When looked at according to geographic location, the poverty profiles were also quite similar. While the IES 2010/2011 found 4,1% of households in urban areas and 16,1% in rural areas to be poor according to the income approach, the multidimensional approach found the levels of poverty to be 5,0% in urban areas and 14,3% in rural areas.

The profiles across the different provinces are shown in Figure 19. In most provinces, the levels of poverty were quite similar regardless of the approach used. Across both approaches, Eastern Cape, KwaZulu-Natal and Limpopo had the highest levels of poverty while Western Cape and Gauteng had the lowest levels of poverty. The ranking of provinces across both approaches was almost identical, with the only difference being that Limpopo was found to be the poorest province according to the money-metric approach while it ranked third highest according to the multidimensional approach.

Figure 17: Comparing poverty profiles by province



It would have been ideal if the money-metric measures (IES) and the multidimensional measures were contained within the same dataset. The differences and similarities across the poverty profiles generated by both approaches would have been further explored and unpacked to see where and how the two approaches diverge or converge in identifying poor households.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6. Conclusion

Census data provides useful information about individuals and households in South Africa, as well as their living conditions. Even though census is not specifically designed to measure poverty, the available data can be a useful tool to understand income dynamics of South Africans, and further employ the use of non-monetary indicators to measure poverty.

The literature review has shown the various methods in which the poor can be identified, ranging from monetary to non-monetary measures of poverty. Income and consumption expenditure were the commonly used indicators. Non-monetary measures included indicators such as education, health, nutrition, etc. Furthermore multiple indicators can be combined to form a multidimensional welfare indicator.

This report has considered the use of census data to measure income levels of South Africans against their demographic, social, household and geographic characteristics. Furthermore, census data has been used to profile poverty in the country, firstly by using the income variable and secondly by employing the multidimensional index.

6.1 Using income to profile poverty

Income is one of the most difficult topics for a statistical agency to measure and presents a range of challenges with regards to the collection and analysis of such information. Beyond the sensitive nature of the information, respondents commonly under-report their earnings either through forgetfulness or out of concern that the information they report might be shared with the taxation authority.

To work around this excessive respondent sensitivity, data collection tools typically employ the use of income ranges that allow the respondents to report their income within predetermined brackets. While the IES first attempts to collect an exact value, it also allows respondents who don't know their specific income or who refuse to answer the question the option of reporting using income ranges. Census on the other hand, only employs the use of income brackets. This method increases the likelihood that respondents will respond to the question (and helps reduce any misplaced concerns that the information could be passed on to the taxation authority). While this addresses challenges associated with data collection, it introduces various biases that affect the analysis of such data. For example, to determine a specific Rand value of income for individuals who only reported within a range, the midpoint of the range is used as a proxy measure. This assumption introduces an immeasurable error as the actual amount could be less or more. Once aggregated, another simplistic assumption is made that using the midpoint will average out, but this too remains immeasurable.

An additional challenge around measuring income is trying to ensure that the individual can recall and will correctly report on the sum of all income sources; however, we know from experience that respondents often forget to include non-wage income. Income and expenditure surveys usually include questions on sources of income to serve as both a check for fieldworkers and a reminder to the respondent about other possible sources of income they may have omitted. The goal is to ensure that income derived from capital is properly recalled, but even with the additional prompting, respondents tend to not report on this type of income. Unfortunately,

Census does not have any questions on sources of income, thus there are no mechanisms in place to facilitate the collection process and improve reporting on all types of income. Poor reporting on these more complex income items can also result from difficulties on the part of the interviewer to convey an adequate understanding of non-wage income.

Furthermore, it is important to remember that while Census has only a single question on income, the IES has over fifteen questions directly linked to assessing the income of respondents. Even with so many more questions, income estimates based on the IES are commonly considered unreliable, so any reporting of income based on Census and its solitary income question should be done with extra caution and care.

6.2 Using a multidimensional index to profile poverty

In the absence of robust income data generated by Census 2011, the use of a multidimensional approach to profiling poverty is advocated. This is particularly the case as census data allows for the profiling of poverty at low geographic levels, making it useful for targeting poverty with appropriate interventions.

Debate will abound as to the dimensions and indicators to be used in the profiling of multidimensional poverty. The SAMPI has been created within the limitations of available data items and the robustness of those items. The limitations of the SAMPI have been acknowledged and documented in the report, *The South African MPI: Creating a multidimensional poverty index using census data (Report No. 03-10-08)*, as well as the future plans reported on to create a more detailed and nuanced SAMPI on an annual basis using data from the General Household Survey from 2014 onwards.

A multidimensional approach should not look to replace any money-metric approach to profiling poverty. It should rather serve to complement money-metric profiling as provided through the IES and LCS data and, in an ideal world, would be used in tandem to further explore the dynamics of poverty and the interplay between money-metric poverty and multidimensional poverty. The limitation of the income data in Census 2011 will be dealt with by exploring the possibility of imputing income data from the IES 2010/2011 into the Census 2011 dataset – this is an exercise for a future research

7. Concepts and definitions

Consumption expenditure – Expenditure on goods and services acquired, and privately used by household members, including imputed values for items produced and consumed by the household itself.

Dwelling – Any structure intended or used for human habitation.

Dwelling unit – Structure or part of a structure or group of structures occupied or meant to be occupied by one or more than one household. Includes structure or part of a structure which is vacant and/or under construction, but can be lived in at the time of the survey. This includes units in collective living quarters, unlike a housing unit. Dwelling units may therefore comprise housing units plus units in collective living quarters when applicable.

Fieldworker – a person who conducts publicity, listing and enumeration in a specific EA assigned to him/her.

Household – A group of persons who live together and provide themselves jointly with food and/or other essentials for living, or a single person who lives alone.

Household head – A person recognised as such by the household, usually the main decision-maker, or the person who owns or rents the dwelling, or the person who is the main breadwinner.

Household income – All receipts by all members of a household, in cash or in kind, in exchange for employment, or in return for capital investment, or receipts obtained from other sources such as pension. Therefore given the wide definition of income, in reality there is no household that has no income

Income (individual) – All money received from salary, wages or own business; plus money benefits from employer, such as contributions to medical aid and pension funds; plus all money from other sources, such as additional work activities, remittances from family members living elsewhere, state pensions or grants, other pensions or grants, income from investments, etc.

Income-in-kind – This refers to items acquired by the household without paying for them, e.g. bursaries, subsidies from employer, free medical services, private use of a company car or similar vehicle, value of discounted fares for educational purposes, grants from schools and other educational institutions, excluding gifts and maintenance from other household members.

Informal dwelling – Makeshift structure not approved by a local authority and not intended as a permanent dwelling. Typically built of found materials (corrugated iron, cardboard, plastic, etc.). Contrasted with formal dwelling and traditional dwelling.

Rural – Farms and traditional areas characterised by low population densities, low levels of economic activity and low levels of infrastructure.

Settlement type – Classification according to settlement characteristics.

Traditional dwelling – A dwelling made of clay, mud, reeds or other locally available materials. This is a general term that includes huts, rondavels, etc. Such dwellings can be found as single units or in clusters.

Traditional area – Communally owned land under the jurisdiction of a traditional leader.

Urban – Formal cities and towns characterised by higher population densities, high levels of economic activities and high levels of infrastructure.

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