GHS Series Volume VII

Housing from a human settlement perspective
In-depth analysis of the General Household Survey data
2002-2014

Statistics South Africa

The South Africa I know, the home I understand

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Housing from a human settlement perspective

In-depth analysis of the General Household Survey data 2002–2014

Statistics South Africa

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Glossary of abbreviations

BNG	Breaking New Ground
BRICS	Brazil, Russia, India, China, South Africa
COGTA	Cooperative Governance and Traditional Affairs
DCOG	Department of Cooperative Governance
DOH	Department of Health
EC	Eastern Cape
ECD	Early Childhood Development
FS	Free State
GDP	Gross Domestic Product
GHS	General Household Survey
GNI	Gross National Income
GP	Gauteng
ICESCR	International Covenant on Economic, Social and Cultural Rights
IES	Income and Expenditure Survey of Households
KZN	KwaZulu-Natal
LCS	Living Conditions Survey
LM	Local Municipality
LP	Limpopo
MDB	Municipal Demarcation Board
MDGs	Millennium Development Goals
MP	Mpumalanga
MTSF	Medium Term Strategic Framework
NC	Northern Cape
NDP	National Development Plan
NUDF	National Urban Development Framework
NW	North West
OR	Odds Ratio
PSU	Primary Sampling Unit
RDP	Reconstruction and Development Programme
SA	South Africa
SHI	Social Housing Institutions
Stats SA	Statistics South Africa
UN	United Nations
UNICEF	United Nations International Children's Emergency Fund
WC	Western Cape
WHO	World Health Organisation
ZAR	South African Rands

Glossary of concepts

Formal dwelling: Structure built according to approved plans, i.e. house on a separate stand, flat or apartment, townhouse, room in backyard, rooms or flatlet elsewhere.

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.

Informal connection: extensions of electricity supply from one household to another. Electricity is, however, still metered and paid for.

Informal dwelling: Makeshift structure not erected according to approved architectural plans, for example informal dwellings or shanties in informal settlements or backyards.

Metropolitan municipality: municipality that has a municipal executive and legislative authority in an area that includes more than one Municipality, as described in section 155(1) of the Constitution as a category A municipality.

Monthly household income: Total amount of income accrued by a household on average.

Per capita monthly household income: The amount of income accrued by a household per month divided by the household size.

Quintile: A quintile is one-fifth or 20% of a given number. The poorest per capita quintile (quintile 1) represents households that fall into the lowest fifth or 20% of the data. Quintile 2 represents households that fall into the second fifth (21% – 40%). Quintile 3 represents households that fall into the third fifth (41% – 60%). Quintile 4 represents households that fall into the fourth fifth (61% – 80%). The final and wealthiest quintile, quintile 5, represents households that fall into the highest fifth of the data (81% – 100%).

Rural: farms and *traditional area*s characterised by low *population* densities, low levels of *economic activity* and low levels of *infrastructure.*

Rural formal: settlements consist of farms and traditional areas and are characterised by low population densities, low levels of economic activity and low levels of infrastructure.

Traditional dwelling: Dwelling /hut/structure made of traditional materials.

Tribal area is an area that is legally proclaimed to be under tribal authorities.

Urban: Cities and towns that are usually characterised by higher *population* densities, high levels of economic activities and high levels of *infrastructure*. Includes formal and informal areas for the purposes of the report.

Urban informal: settlements or 'squatter camps' usually located in urban areas. The dwelling units in informal settlements are usually made of materials such as zinc, mud, wood, plastic, etc. They are typically disorderly and congested and are sometimes referred to as squatter settlements.

Foreword

This study focuses on adequate housing within the context of human settlements as referred to in the Constitution, NDP 2030 and the Breaking New Ground (BNG) Comprehensive Plan for the Development of Sustainable Human Settlements. Densification and integration are two of the primary mechanisms promoted by the NDP and BNG in an effort to re-imagine urban space and to break the spatial settlement patterns created by apartheid. Even though the built environment expanded significantly during the past 20 years, some densification took place in the major metropolitan areas. In addition to this, an analysis of the extent of racial integration within these areas, using Theil's entropy index, has shown that significant progress has been made in this regard in most municipalities between 1996 and 2011. Amongst the racially diverse metropolitan areas, Nelson Mandela Bay, eThekwini and City of Cape Town performed the worst in terms of integration, whilst when looking at municipal averages within provinces, Gauteng, Free State and Limpopo tend to have the highest proportions of highly segregated municipalities.

A good understanding of migration and population growth patterns is necessary for effective urban planning and service delivery. The most significant population shifts referred to by the study and which took place between 2001 and 2011, were large flows of individuals and households towards Gauteng and Western Cape and movements out of the Eastern Cape. The study found that migrants are more likely than non-migrants to live in informal settlements further bearing testimony of the pressures they place on service delivery and housing provision in migrant receiving areas and the ability of municipalities and metropolitan areas to ensure an adequate quality of life for these new arrivals.

Not just the type and condition of housing influence living conditions. Homeownership and security of tenure are increasingly regarded as key facets of the concept of 'adequate housing' as well as improved quality of life and livelihoods. The study found that there was a national decline in homeownership rates between 2001 and 2011, with the biggest decline a 7,6 percentage point change in Gauteng province. The general decline in homeownership rates may be the result of the economic recession that started in 2008, coupled with the introduction of the Credit Control Act shortly before that. One of the consequences of these changes as reflected in the data, is that households headed by younger people (18–34 years) became significantly less likely to own their dwellings between 2001 and 2011. The positive side of this is that there has been an improvement in tenure security for households headed by persons 60 years and older during the same period. The state currently offers a range of subsidisation and social housing options; most of these are as far as possible in support, rather than in competition with the private housing sector. During this same period there has been a significant increase in home rentals, many of which were in the informal housing sector.

Central to the concept of 'adequate housing' is the idea of adequate shelter against the elements and formal housing is generally considered to be its more durable form. Nationally, the percentage of households living in formal dwellings increased from 76% to 80% between 2002 and 2014, with the most significant increase taking place in Limpopo. The rate of provisioning of RDP/state-subsided dwellings surpassed the provisioning of formal dwellings in the private sector between 2009 and 2014, and the percentage of beneficiaries of RDP/state-subsidised housing increased from 5,6% in 2002 to 13,6% in 2014.

The study found that the targeting of RDP/state-subsidised housing has been effective in so far as:

- Over time there has been a significant increase in the percentage of beneficiaries are female-headed households. Female headed households are also more likely to occupy a RDP/State subsidised dwelling than male headed households.
- The RDP/state subsidies primarily reached quintiles 1–3 households
- Households living in RDP/state-subsidised dwellings were more likely to have access to basic services than households living in non-RDP formal dwellings. This is partly due to formal dwellings constructed on traditional land without formal planning or cadastres in provinces such as Limpopo, Eastern Cape and KwaZulu-Natal.

These dwellings then typically do not have refuse removal services, often do not have electricity and make use of communal services and/or facilities such as pit latrines.

Informal dwellings in settlements and backyards have decreased from 17% in 2002 to 11% in 2014. Limpopo, Mpumalanga and Free State had the biggest declines in the percentage of persons living in informal settlements during this time. At municipal level, most of the municipalities that experienced a contraction of informal dwellings also experienced contractions of either mining or manufacturing activities, suggesting that informal settlement growth or decline is as much a function of a shift in economic and job opportunities as inadequate housing opportunities per se. In 2011, individuals associated with the mining industry in North West and Limpopo were respectively 1,3 and 1,4 times more likely than individuals working in other industries to live in informal dwellings of any type. The overall national odds of this happening decreased from 1,4 in 2001 to 1,2 in 2011. The study found in a national context that inhabitants of informal settlements had significantly better access to improved basic services between 2002 and 2014. However, they are still lagging behind households who occupy formal housing.

The occupation of traditional housing has declined since 2002 in all provinces except Northern Cape, and even though inhabitants of these dwellings do not have the same access to basic services as households living in formal dwellings, there has been a significant improvement in the basic services they have access to, as well as the general condition of the houses. Even though homeownership is high amongst households living in traditional dwellings, they are most often occupied by the poorest of the poor (quintiles 1 and 2 households). In spite of the gains made, more than 10% of the dwellings in more than half of the municipalities in Eastern Cape and KwaZulu-Natal are still traditional.

Pali Lehohla
Statistician-General

1. Introduction

1.1 Introduction

Urban areas are by nature concentration points of people and economic activities, drivers of socio-economic change and are focal points of growth and development. Most South Africans find themselves in urban areas with continued high rates of migration out of the northern provinces and east coast provinces towards Gauteng and Western Cape. These shifts and changes in the population increasingly put pressure on existing housing and service delivery infrastructure and resources – especially in metropolitan areas. In spite of these population shifts towards the metropolitan areas, many rural areas remain densely populated with a continued expansion of the built environment. However, this expansion primarily results in asset formation in the form of a dwelling and is unfortunately seldom accompanied by the expansion of economic activities and poverty reduction.

It has been argued that within the context of the government's drive to bring about the elimination of poverty and reduction of inequality (NDP, 2030), urban areas provide a good opportunity to bring about these changes. Housing and housing provisioning form the basis of human settlements and sustainable urban development and a more in-depth look at this aspect of urban development is therefore important. Furthermore, the Constitution of South Africa (1996) protects the individual's rights to a healthy environment and environmental protection (section 24), adequate housing (section 26) and food and water (section 27). Both housing and water fall within the ambit of human settlements, whilst the concept of sustainable human settlements relates closely to environmental protection and the right to a healthy environment. The concept of adequate housing is no longer constrained to a physical structure of four walls and a roof, but increasingly encompasses the basic structure and the human settlement environment in which that structure finds itself.

According to UN-Habitat (2015), adequate housing must, at a minimum, meet the following criteria:

- Tenure security: occupants of housing have to have some degree of tenure security that guarantees legal protection against forced evictions, harassment and other threats. Protection against forced evictions is considered an integral part of the adequate housing concept.
- Availability of services, materials, facilities and infrastructure: access to safe drinking water, adequate sanitation, energy for cooking, heating, lighting, food storage or refuse disposal are considered an integral part of the concept of adequate housing.
- Affordability: housing is not considered adequate if it is so expensive that it compromises the occupants' ability to enjoy other human rights.
- Habitability: housing is not adequate if it does not guarantee physical safety and protect against cold, damp, heat, rain, wind, other threats to health and structural hazards. Neither is it considered adequate if it does not provide enough space.
- Accessibility: accessible housing refers options provided by the state and/or private enterprises and considers the needs of disadvantaged and marginalised groups.
- Location: housing is not adequate if it does not provide easy access to employment opportunities, health-care services, schools, childcare centres and other social facilities, or if it is located in polluted or dangerous areas.
- Cultural adequacy: housing is adequate if it respects and takes into account the expression of cultural identity.

These ideas about adequate housing as summarised by UN-Habitat (2015) have evolved over the past decade and are largely based on the key concepts of the International Covenant on Economic, Social and Cultural Rights (ICESCR, 1966). The broader conceptualisation of housing within the context of human settlements has also been put forward in the Breaking New Ground policy document and the transformation of the Department of Housing in 2009 into the Department of Human Settlements. As a result of these shifts in thinking, planners and policymakers have increasingly began to take broader issues related to service delivery and the socio-economic environments of settlements into consideration when doing spatial, housing provisioning and human settlement planning.

1.2 Objectives of this report

The report has five main objectives:

I. To investigate the extent to which spatial densification in human settlements has been achieved.
II. To consider changes in racial integration in residential housing areas since 1994.
III. To provide a summary of trends over time in relation to the kinds of housing occupied by households, as well as the basic services that they have access to.
IV. To consider housing provisioning by the state in the form of RDP or state-subsidised housing units.
V. To look at travel time to work in relation to various settlement and housing types as well as household income quintiles.

2. Methodology

2.1 Data sources

A number of Statistics South Africa surveys, as well as census data were utilised in this report. For household and provincial level analysis, the report used data from the annual General Household Surveys (GHS). Data from these surveys contribute, amongst other things, towards the monitoring of selected indicators in relation to the performance of various government departments. The GHS has been conducted since 2002 by Statistics South Africa (Stats SA) and was specifically designed to measure the multiple facets of the living conditions of South African households. It covers six broad areas, namely education, health and social development, housing, household access to services and facilities, food security, and agriculture. The survey has, since 2009, also measured household access to the Internet.

Analysis at district and local municipal levels relied on data from the censuses of 1996, 2001 and 2011. Census data were crucial, as survey data are not available at sub-provincial level. Although Census 2011 contained similar questions to those asked in the GHS, many of the questions were only partially comparable. The report also used, on a much more limited scale, data from the National Household Travel Survey 2013.

The following data were used for the spatial analysis and maps contained in the report:

Spatial:

- Census 2001 and 2011 enumeration areas (EAs)
- Census 2001 and 2011 main places
- The density calculation was done using physical area size of the EAs in the Albers Equal Area Projection.

Population data:

- Census 2001 and Census 2011 population total per EA

2.2 Analytical tools

The data were analysed using SAS Enterprise Guide Version 7.1. Descriptive bivariate statistical analysis such as frequencies and percentages were used in most instances. Standard logistic regression was used to investigate the relationship between the dichotomous categorical outcomes (e.g. living in informal settlements) and explanatory variables selected based on the literature review. Logistic regression is widely applied to model the outcomes of a categorical dependent variable with independent variables either continuous or categorical or both.

$$Y=a+b_1x+b_2x+\ldots+b_m x_m \qquad (1)$$

$$Y=\log_e (p/(1-P)) = \text{log it } (P) \qquad (2)$$

$$P(z=1)= \frac{e^y}{1+e^y} \qquad (3)$$

With $x_1, x_2 \ldots x_m$ are explanatory variables and the function y is a linear combination of these explanatory variables representing a linear relationship. The parameters $b_1, b_2 \ldots b_m$ are the regression coefficients to be estimated, while Z is the binary response variable to be estimated. The function y is presented as logit (P), i.e. the log (to base *e*) of the odds or likelihoods ratio that dependent variable z has a value of 1. The probability P will increase as the value y increases. The probability value P is represented by the regression coefficients b_1-b_m. A positive sign of the

coefficients indicates that the explanatory variable helps to increase the probability or odds of the dependent variable having a particular outcome, whilst a negative sign indicates the reverse effect. Odds ratios were used to report the results of the logistic regression.

Spatial analysis, and more especially the kernel analysis, and the production of maps were done using ARCGIS version 10.2.1.

2.3 Calculation methods

Theil's entropy index (Massey and Denton, 1998) was used in this study to calculate the degree of racial segregation/integration for all municipalities in South Africa, using race and annual household income data from Census 2011. The calculation of the index consists of two steps. First, using race or income data, a diversity score was first calculated for every census enumeration area in the country. Second, the average diversity score across all enumeration areas in a specific municipality was then compared to the municipality's overall diversity score to obtain a measure of segregation *H* for the municipality. *H* varies between 0, when all enumeration areas have the same race or income group composition as the municipality as a whole (i.e. perfect integration), and 1, when all enumeration areas contain one race or income group only (i.e. perfect segregation). *H* was an indication of evenness: municipalities with higher values of *H* have less uniform racial (or income group) distributions in residential space, while municipalities with lower values of *H* exhibit more uniform racial (or income group) distributions.

Homeownership rate measure (US Census Bureau)

$$Homeownership\ Rate\ (\%) = \left[\frac{Owner\ occupied\ housing\ units}{Total\ occupied\ housing\ units}\right] * 100$$

Migration effectiveness was calculated by expressing net migration as a proportion of migration turnover, where turnover was the sum of gross inflows and outflows.

Overcrowding was defined as two or more household members per room in a dwelling unit. The rooms included in the calculation include bedrooms, living rooms, dining rooms as well as kitchens. The calculation excludes bathrooms and toilets.

Density: The Kernel Density tool ARCGIS version 10.2.1 calculates the density of features in a neighbourhood around those features – in this case, the population. It is done by determining a magnitude per unit area from point or polyline feature. The population field can be used to weight some features more heavily than others, depending on their meaning.

Alkire-Foster's method of Multidimensional Poverty Analysis: The Alkire and Foster (AF) methodology is a general framework for measuring multidimensional poverty, although it is also suitable for measuring other phenomena (OECD 2005, Akire, S. & Roche, J.M. 2012). Even though there are several other methods in use, it was selected for this study because of its ease of use, its production of both the incidence and intensity of deprivation indicators and the fact that it has already been used by Statistics South Africa for the development of the South African Multi-dimensional Poverty Index (SAMPI) and the school deprivation index. The AF method basically entails counting the number of dimensions in which people suffer deprivation or the number of dimensions in which they fall below the threshold.

A counting approach to identify the deprived poor can be broken down into the following steps:

1. Defining a set of relevant indicators;
2. Defining a threshold of satisfaction (deprivation cut-off) for each indicator such that if the person does not reach it, the person is considered deprived;
3. Creating binary deprivation scores for each person in each indicator, where 1 is being deprived and 0 is non-deprived;
4. Assigning a weight or deprivation value to each considered indicator;
5. Producing a deprivation score by taking weighted sum of deprivations (the number of deprivations, if equally weighted); and
6. Setting a threshold score of poverty (or poverty cut-off) such that if the person has a deprivation score at or above the threshold, the person is considered poor.

More details about the dimensions, indicators and weights used for the compilation of this index are contained in the Addendum.

2.4 Limitations to the data

Whilst the GHS data series is available annually from 2002, the cluster sampling technique used may not adequately capture all housing and service delivery imperatives due to the sometimes-clustered nature of these phenomena. Furthermore, in some instances, rare events will not be well captured by a sample survey. For example, if no cases were found in a particular province that have a specific characteristic, it does not mean that it is absolutely true that there are no cases, but merely that the sample did not identify any cases. The reader therefore has to treat reported zeros with care.

The data are also not strictly comparable to administrative data, since the latter are counted in terms of service points, whilst the household survey may cover more than one household per service point. The advantage of this approach is of course that illegal connections and problems related to service delivery are more likely to come to light than if administrative data sources are to be used. The report also used, on a much more limited scale, data from the National Household Travel Survey 2013, the 2010 Time Use Survey as well as the 2008/9 Living Conditions Survey.

Meaningful planning, decision making, monitoring and evaluation of progress of the adequate housing concept is only possible with data that can be used to report reliably at municipal or even lower levels of geography. The adequate housing index was developed for this purpose. Unfortunately current Census and community survey datasets are the only datasets that provide sub provincial data and they do not have adequate information to compile and index that truly reflect all the dimensions of adequate housing properly. As a result the adequate housing index was developed for illustrative purposes using GHS 2014 data which can only report reliably at provincial level. The GHS 2015 can also be used in addition to provincial level data for reporting at metro level within provinces and once this data is available the index can be expanded to include some sub-provincial measures.

3. Overview of the legal environment

3.1 Constitutional and legislative imperatives

'Shelter from the elements; a place to eat; sleep; relax and raise a family are some of the basic things people need for survival' (SAHRC, 2002). Within this context, the right to adequate housing is included within a number of international human rights agreements. For example, Article 11 of the International Covenant on Economic, Social and Cultural Rights (ICESCR) recognises the right of everyone to an adequate standard of living, which includes adequate housing (ICESCR, 1966). President Nelson Mandela signed the ICESCR in 1994, but South Africa only ratified the ICESCR in January 2016.

The Constitution of South Africa (1996) also protects individual rights to adequate housing (section 26) and prohibits evictions of persons from their homes and the demolition of their homes without a court order. The Housing Act (Act No. 107 of 1997) was developed within the ambit of this constitutional provision to provide a legal framework for a sustainable housing development vision in South Africa. It sets out to identify the general principles that apply to the development of housing by government as well as the functions of the various spheres of government with regard to housing development. It also governs the establishment and operation of the South African Housing Development Board, provincial boards and the financing of housing programmes.

The Rental Housing Act (Act No. 50 of 1999) provides a legal framework for the responsibility of government in relation to rental housing and the functions and power of rental tribunals. It also repealed the Rent Control Act of 1976. The Rental Housing Amendment Act (Act No. 43 of 2007) was primarily aimed at coherently describing the rights and responsibilities of tenants and landlords.

Closely aligned to the Rental Housing Act and the amendments to that Act is the Extension of Security of Tenure Act (Act No. 62 of 1997). The latter provides mechanisms for state assistance in facilitating long-term security of land tenure; 'to regulate the conditions of residence on certain land; to regulate the conditions on and circumstances under which the right of persons to reside on land may be terminated; and to regulate the conditions and circumstances under which persons, whose right of residence has been terminated, may be evicted from land; and to provide for matters connected therewith'.

The Social Housing Act (Act No. 16 of 2008) sets out specific details of the Social Housing Programme and is aimed at contributing towards:

- Establishing and promoting a sustainable social housing environment;
- Defining the functions of national, provincial and local governments in respect of social housing;
- Making provision for the establishment of the Social Housing Regulatory Authority in order to regulate all social housing institutions obtaining or having obtained public funds;
- Allowing for the undertaking of approved projects by other delivery agents with the benefit of public money;
- Giving statutory recognition to social housing institutions; and
- Providing for matters connected therewith.

4. National Development Plan and Medium Term Strategic Framework

The National Development Plan (NDP, 2013) includes significant references to how human settlements are to be transformed by 2030 '… we strive to achieve measurable progress towards breaking apartheid spatial patterns, with significant advances towards retrofitting existing settlements. We further strive to offer the majority of South Africans access to adequate housing, affordable services in better living environments, a more equitable and functional residential property market, with a more coherent and inclusive approach to land. We strive to enable greater levels of citizen capabilities and social solidarity for safe and vibrant communities'.

The NDP 2013 also clearly indicates that the model followed until 2004 of the actual provisioning of state/subsidised houses could not meet current and future backlogs and was not financially sustainable. This made it necessary to diversify the number of housing options and housing support options provided by the state. The proposed interventions within the context of providing affordable and suitable accommodation of poor households include (NPC, 2013):

- Upgrading informal settlements.
- Increasing rental stock.
- Promoting and improving access to housing opportunities in the gap market.
- The subsidised housing product should be one of many approaches.

Outcome 8 of the Medium Term Strategic Framework (MTSF) (2014–2019) specifically deals with human settlements and improved quality of household life. The primary outcomes of this MTSF period is to ensure that poor households have adequate housing in better living environments; providing support towards the development of a functionally and equitable residential property market and improving institutional capacity and coordination for better spatial targeting (Presidency, 2014).

5. Frameworks, policies and strategies

5.1 White Paper on Spatial Planning and Land Use Management, 2001

The new spatial planning, land use management and land development system is based on two important points of departure. Firstly, local government forms the most important sphere for decision-making. Secondly, the IDP required by the Municipal Systems Act forms the key planning instrument. The two key elements of the spatial planning, land use management and land development function of local government are traditionally known as 'forward planning' and 'development control'.

5.2 National Urban Development Framework

Any report on housing will be incomplete if it is not placed within the context of spatial planning and an urban development framework. The first National Urban Development Framework (NUDF) was published in 1997 by the then Department of Housing. It was developed within the context of the Reconstruction and Development Programme (RDP) and the Growth, Employment and Redistribution strategy (GEAR) and was aimed at promoting 'a consistent urban development policy approach for effective urban reconstruction and development, to guide development policies, strategies and actions of all stakeholders in the urban development process and to steer them towards the achievement of a collective vision.'

The framework identified four key programme areas:

- Integrating the city
- Improving housing and infrastructure
- Promoting urban economic development
- Creating institutions for delivery

A much more comprehensive and revised working draft of the NUDF was published in 2009. This draft has, however, never been formally adopted. A discussion document paving the way towards a new Integrated Urban Development Framework was finalised in 2014 and an updated and final draft of the Integrated Urban Development Framework (IUDF) was produced in 2015. Even though the latter is much more comprehensive and a significant improvement on its predecessors, the main ideas of the NUDF 1997 still form the core of this draft.

The principle tenets of the NUDF 1997 (and to some extent the draft IUDF 2015) include:

I. Integrating the city

This sub-programme was aimed at addressing the segregation, fragmentation and inequality that characterised the apartheid urban profile. Specific areas that would receive attention would be townships and informal settlements that need to be changed into 'sustainable, habitable, productive, environmentally healthy and safe urban environments' (NUDF, 1997:12). Changing the urban planning processes to be more integrated includes the densification and integration of socio-economic activities, integrated and more cost-effective transportation systems and more sustainable environmental management. This programme also includes investment in the public environment such as schools, parks, centres that provide social services, police stations, etc. as an integral part of a strategy to establishing 'safe and habitable' communities.

II. Improving housing and infrastructure

The provision and improvement of access to housing and basic services in the NUDF 1997 was seen as not only meeting basic needs, but also as a key component of the drive towards reducing inequality and creating

sustainable and healthy urban living environments. Key areas to address include water, sanitation and electricity backlogs, formal road access to residences and storm water drainage. The Municipal Infrastructure Investment Framework (MIIF) was set up specifically for the purpose of addressing service delivery backlogs and providing a 'basic level of service' to all South Africans within 10 years. In terms of housing, the term 'housing' was defined as 'a variety of processes through which habitable, stable and sustainable public and private residential environments are created for viable households and communities' (NUDF, 1997:21). The programme aimed to provide '350 000 quality housing units per annum' and was described as 'an engine of the economy and spur to job creation' (NUDF, 1997:22). The framework also created a link between the well-being of women and the housing service delivery agenda, which included targeting women in housing job creation programmes, special finance programmes for women and promoting the right of women to own, inherit, control and sustain tenure of land and buildings.

III. Promoting urban economic development

Urban economic development is described in the framework as a prerequisite of urban economic growth and the ability of urban areas to become more 'habitable, efficient, competitive and sustainable' (NUDF, 1997:31). The Local Economic Development (LED) programme, developed by each municipality as part of the Integrated Development Planning process, was seen as one of the tools that could be used in this process. This programme emphasises partnerships, use of local resources and skills as well as supporting small, medium and micro-enterprises (SMMEs). Economic development should also closely link with the functions of the city or town.

IV. Creating institutions for delivery

Central to this programme is the clarification of the roles to be played at the different spheres of government as well as capacity development in relation to delivery on the ideals of the Urban Development Framework. According to the NUDF (1997:35), the primary responsibility of municipalities is to manage the 'efficient functioning of cities and towns' and to use integrated processes when planning urban development. Provinces, on the other hand, are primarily responsible for providing training and technical support to municipalities as well as establishing laws, policy and funding mechanisms that are province specific, yet sensitive to the realities of municipalities in that province and that enable municipalities to execute their mandates effectively. At national level, there is also a framework of laws, policies and funding mechanisms that should be administered in such a way that it supports provincial and municipal efforts towards effective urban development.

5.3 White paper: A new housing policy and strategy for South Africa

In 1994 the erstwhile Department of Housing, now the Department of Human Settlements, published a White Paper on housing entitled 'White Paper: A New Housing Policy and Strategy for South Africa' (DOH, 1994) which set out a 'National Housing Vision' for the Republic of South Africa and contains the fundamental principles of government's housing policy to achieve that housing vision.

Within the white paper, housing already has a broad definition of processes aimed at creating viable households and communities through the development of 'habitable, stable and sustainable' public and private residential areas that are socially and economically integrated and that allow access to health, education and social amenities. This includes creating access on a progressive basis to permanent residential structures with security of tenure and access to potable water, adequate sanitary facilities (including waste disposal) and domestic electricity supply.

5.4 Comprehensive Housing Plan (CHP) for the Development of Integrated Sustainable Human Settlements (Breaking New Ground)

Since 2004, government policy has placed greater emphasis on housing as an aspect of Integrated Human Settlement, and extending the choice of tenure options available to very low, low- and medium-income households, particularly in better-located parts of the urban environment. This new approach was summarised in the Breaking New Ground (BNG) (DOH, 2004) document against the background of the ever-increasing demand for housing, limited resources and a general slow-down in delivery rates after 2001 and the withdrawal of large construction companies from housing delivery.

BNG is a comprehensive plan aimed at expanding the housing options that would expand adequate housing options and delivery, involving greater partnerships between the public and private spheres of government. The document also placed an emphasis on using housing as an instrument for the development of sustainable human settlements and to support spatial restructuring away from the spatial heritage created by apartheid. This has resulted in the development of government programmes to support the development and strengthening of the rental sector in addition to initiatives aimed at improving tenure security.

The comprehensive plan for housing delivery supports the entire residential property market and includes mechanisms that would enable the private sector to assist with alleviating housing shortages for low-income households. The role of the private sector is to be enhanced through the expansion of the subsidy to medium-income households (R3 500–R7 000 per month), social housing institutions such as public private partnerships and special purpose vehicles, engaging with the private sector to provide employer-assisted housing and new financial product development, amongst other interventions. An additional intervention includes the creation and strengthening of linkages between the primary and secondary residential property market. In terms of state-provided housing, a much greater role was envisaged for municipalities in not only identifying demand, but also playing a lead role in location selection in order to achieve spatial restructuring.

The Breaking New Ground (BNG) policy incorporates principles such as:

- Integrating subsidised, rental and bonded housing.
- Progressively upgrading and eradicating informal settlements.
- Promoting densification and integration.
- Providing municipal engineering services at a higher level and being applied consistently throughout the township.
- Developing social and economic infrastructure by providing ancillary facilities such as schools, clinics and commercial opportunities.
- Combining different housing densities and types, ranging from single-stand units to double-storey units and row houses.
- The location of new housing projects should be enhanced through accessing well-located state and parastate-owned land and the funding for the acquisition of well-located land will be done through a mechanism that is separate from the housing subsidy.
- Municipalities will become the primary implementation agencies.

5.5 The National Housing Code, 2009

The National Housing Code, 2009 sets the underlying policy principles, guidelines and norms and standards that apply to government's various housing assistance programmes introduced since 1994 and updated.

5.6 Social contract for the development of human settlements

In response to the vision of the National Development Plan, the Department of Human Settlements established a social contract for the development of human settlements which is largely based on the ideas of BNG and which encompasses the following (DHS, 2014):

(a) Prioritising people in spatial investment decisions and by doing so, following a more coherent and inclusive approach;
(b) Addressing spatial patterns that increase social inequality and economic inefficiency across all geographic spheres, taking into account urban development and rural spatial development frameworks;
(c) Embarking on a policy review that would improve the achievement of constitutional housing rights in such a way that housing delivery is used as an opportunity to restructure villages, towns and cities and to strengthen the livelihoods of people;
(d) Establishing closer links between the regulations and incentives for housing and land use management as complimentary facets of housing delivery;
(e) Radically revising the housing finance regime;
(f) Building capabilities so that human settlements can be transformed; and
(g) Focusing on more forthright measures to develop sustainable human settlements and engage in a proactive manner with an understanding that settlements will be best developed through a well-coordinated partnership between government, citizen, civil society and the private sector.

6. Urban density and expansion

6.1 Introduction

Integration and spatial efficiency have become central to the debate surrounding sustainable human settlements. Many authors argue that denser and integrated cities are prerequisites for reducing the urban footprint and carbon emissions that lead to increased commuting times and unsustainable city environments (e.g. Smart Growth, 2008; Jabareen, 2006; Bontje, 2003; Headicar, 2003; Lin and Yang, 2009). Jabareen (2006) identified seven design concepts that contribute towards sustainable urban form. These are compactness, sustainable transport, density, mixed land uses, diversity, passive solar design, and greening. Density can be defined as the ratio of people or dwelling units per land area and is an important predictor of vehicle ownership and use. Higher densities are generally associated with lower car ownership, more walking and use of public transport (Jabareen, 2006).

Some authors, such as Geyer et al. (2010), argue that compact cities do not always result in shorter commuting times or less transit, as people may not be able to find work close to where they live, and even in dense cities distances between locations can be quite long. Others, such as Van der Coevering and Schwanen (2006), maintain that the relationship between land use and transport should be more flexible and based on a series of models that are tailor-made to regional contexts.

Densification can be of benefit to the poor if it reduces their transit times and places them closer to their places of work. This section will briefly look at changes in densification in relation to the location of the poor in the metropolitan areas of South Africa.

6.2 Changes in density of selected metropolitan areas

Population density in its most basic form is calculated by dividing the population by the land area (km^2) by the population. This method is useful in that it provides a general measure of how people densities change over time. Five municipalities had densities increases of more than 50% between 2001 and 2011. These were: Gamagarra, Musina, Bitou, Steve Tshwete and Swartland. Even though some of these, such as for example Gamagarra have relatively low population densities, such significant changes do impact on urban service delivery provisioning and the natural environment. Density changes measured in this way also do not necessarily reflect densification of the built environment - if there is enough land available increases in the population can also be accommodated through urban sprawl.

Table 6.1: Municipal population densities and changes between 2001 and 2011 of the 25 densest municipalities in 2011

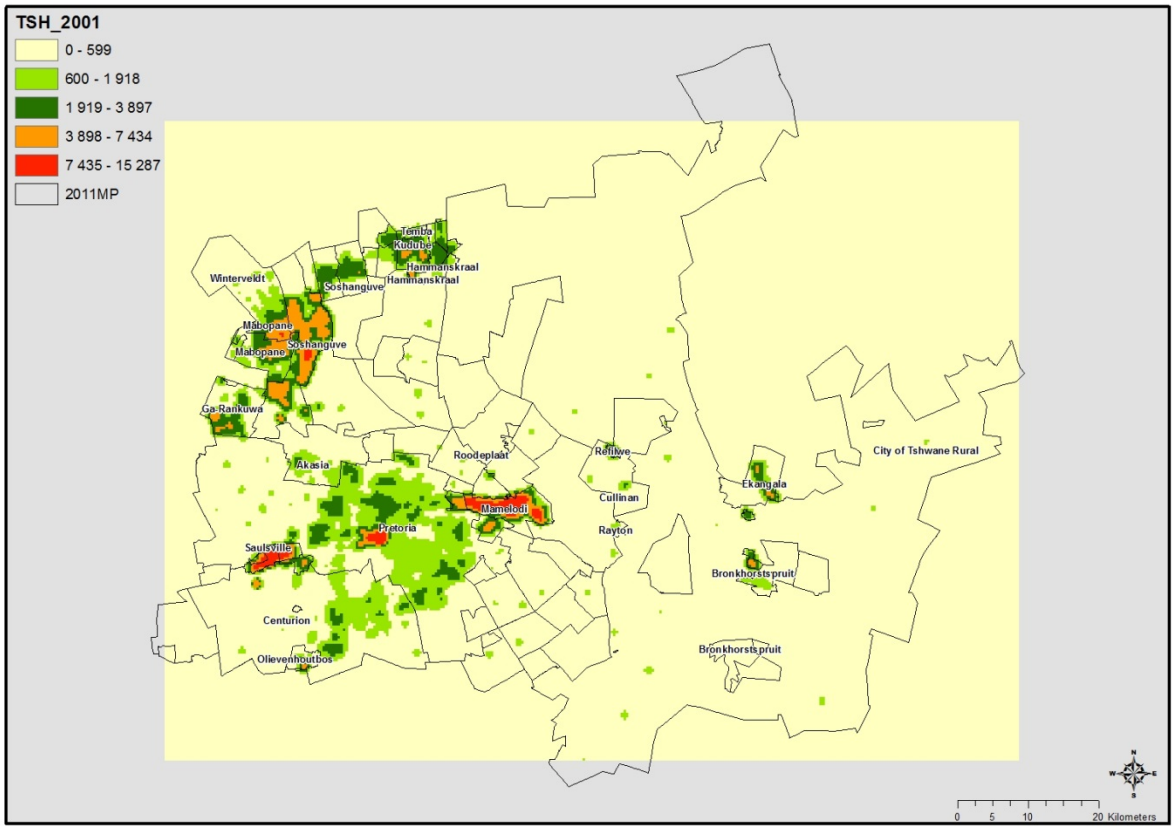
Municipality	Province	Population per km^2		Density change	% change 2001-2011	Rank based on 2011 density
		Density 2001	Density 2011			
City of Johannesburg	Gauteng	1961,1	2696,0	734,8	37,5	1
Ekurhuleni	Gauteng	1256,4	1609,1	352,7	28,1	2
City of Cape Town	Western Cape	1182,9	1529,7	346,7	29,3	3
eThekwini	KwaZulu-Natal	1348,6	1502,4	153,7	11,4	4
The Msunduzi	KwaZulu-Natal	872,0	975,6	103,6	11,9	5
Emfuleni	Gauteng	681,2	747,1	66,0	9,7	6
Nelson Mandela Bay	Eastern Cape	513,4	588,1	74,7	14,5	7
City of Tshwane	Gauteng	340,2	463,9	123,7	36,4	8
uMhlathuze	KwaZulu-Natal	364,6	421,7	57,1	15,7	9
KwaDukuza	KwaZulu-Natal	228,3	314,6	86,2	37,8	10
Randfontein	Gauteng	271,3	314,4	43,1	15,9	11
Umdoni	KwaZulu-Natal	248,0	313,6	65,6	26,5	12
Hibiscus Coast	KwaZulu-Natal	259,6	305,3	45,7	17,6	13
Buffalo City	Eastern Cape	277,9	297,8	19,9	7,1	14
Mogale City	Gauteng	220,2	270,0	49,9	22,6	15
Mandeni	KwaZulu-Natal	233,4	253,1	19,7	8,4	16
Newcastle	KwaZulu-Natal	179,5	195,8	16,3	9,1	17
Stellenbosch	Western Cape	142,8	187,4	44,6	31,2	18
Dr JS Moroka	Mpumalanga	171,8	176,3	4,5	2,6	19
Westonaria	Gauteng	171,6	174,7	3,1	1,8	20
Polokwane	Limpopo	135,0	167,0	32,1	23,8	21
Drakenstein	Western Cape	126,4	163,4	37,0	29,2	22
Rustenburg	North West	113,1	160,5	47,5	42,0	23
King Sabata Dalindyebo	Eastern Cape	137,5	149,2	11,7	8,5	24
Emalahleni	Mpumalanga	103,2	147,7	44,5	43,1	25

Table 6.1 summarises the density changes that took place in the top 25 densest municipalities between 2001 and 2011. The densest municipalities are mostly found in the metropolitan areas with City of Johannesburg, Ekhuruleni, City of Cape Town and eThekwhini leading the way. The Msunduzi, which is not a metro, was also amongst the top 5 in so far as density is concerned. Several of the top 25 densest municipalities had increases of more than 25% in their densities during the reference period. These municipalities include in descending order: Emalahleni, Rustenburg, KwaDukuza, City of Johannesburg, City of Tshwane, Stellenbosch, City of Cape Town, Drakenstein, Ekurhuleni and Umdoni. Municipal level changes alone are not enough to form a picture of changes that took place in a particular municipality. The maps in the next section indicate changes in urban densities using kernel density analysis for the four main metropolitan areas in the country.

6.3 Density changes in selected metropolitan areas

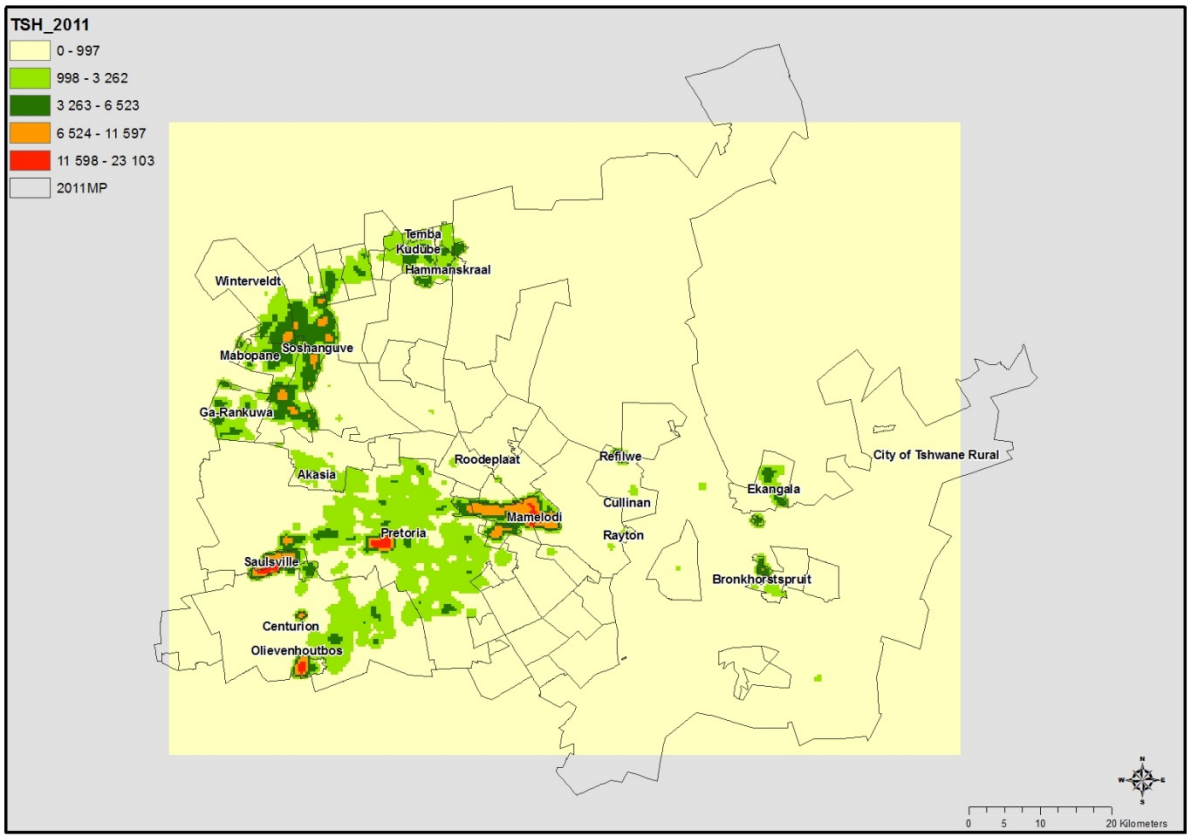
The following maps reflect the outcome of spatial analysis (kernel density) done for selected metropolitan municipalities (metro). The aim is to compare the population density within metros between 2001 and 2011 and not necessarily to illustrate the differences in densities between metros.

Map 6.1a: Urban population density of the City of Tshwane, 2001



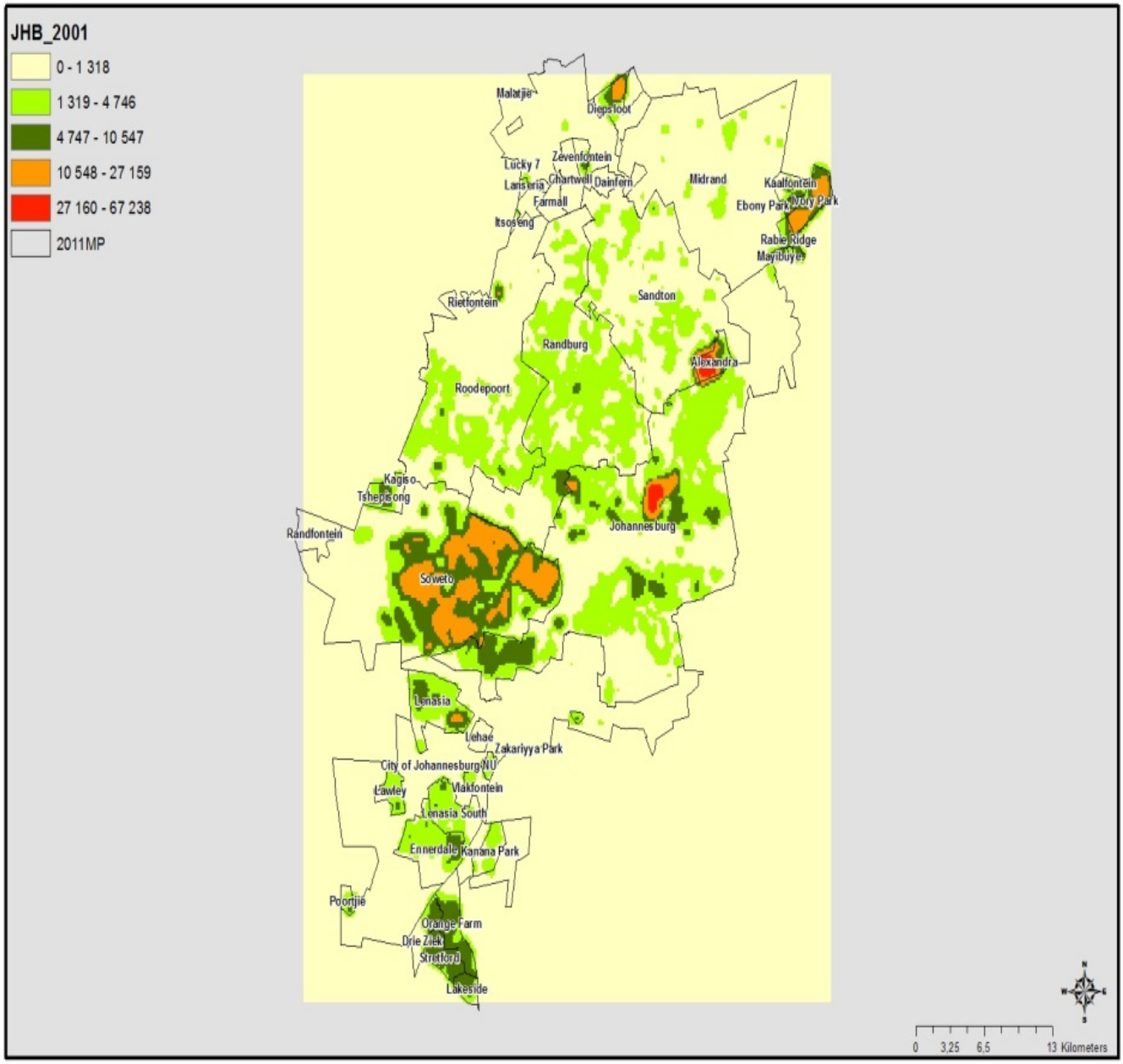
As depicted in Map 6.1a above, the densest places in the City of Tshwane in 2001 were the traditionally dominant black residential areas on the city's fringes such as Soshanguve in the north, Atteridgeville in the south-west and Mamelodi in the centre. A dense inner city area is also visible.

Map 6.1b: Urban population density of the City of Tshwane, 2011

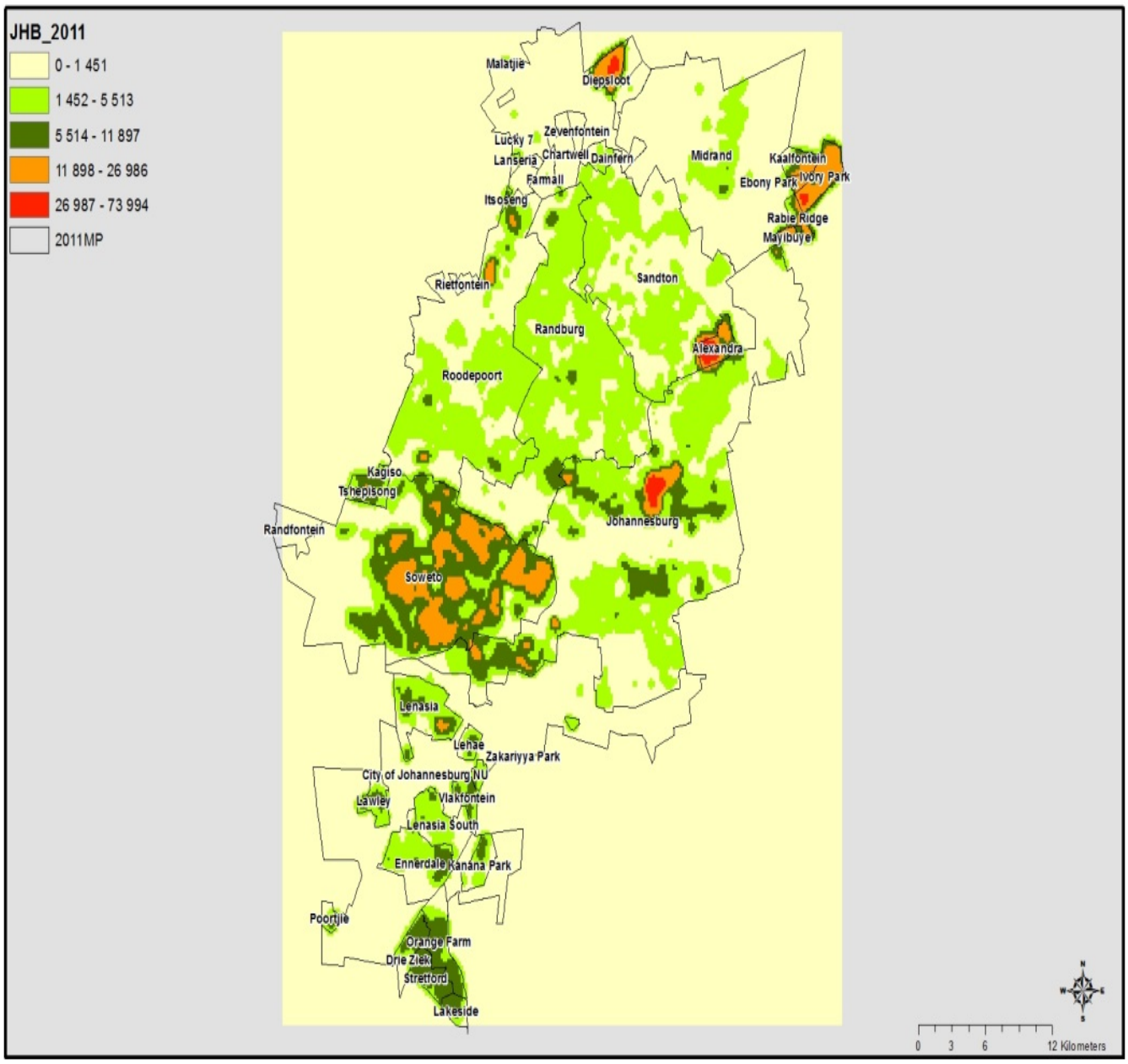


In 2011, these residential areas continue to be the most densely populated areas with an additional area to the south, namely Olievenhoutbosch, developing during this period. A noticeable general densification also took place in the Pretoria central and Centurion areas, as can be seen on the 2011 map.

Map 6.2a: Urban population density of the City of Johannesburg, 2001



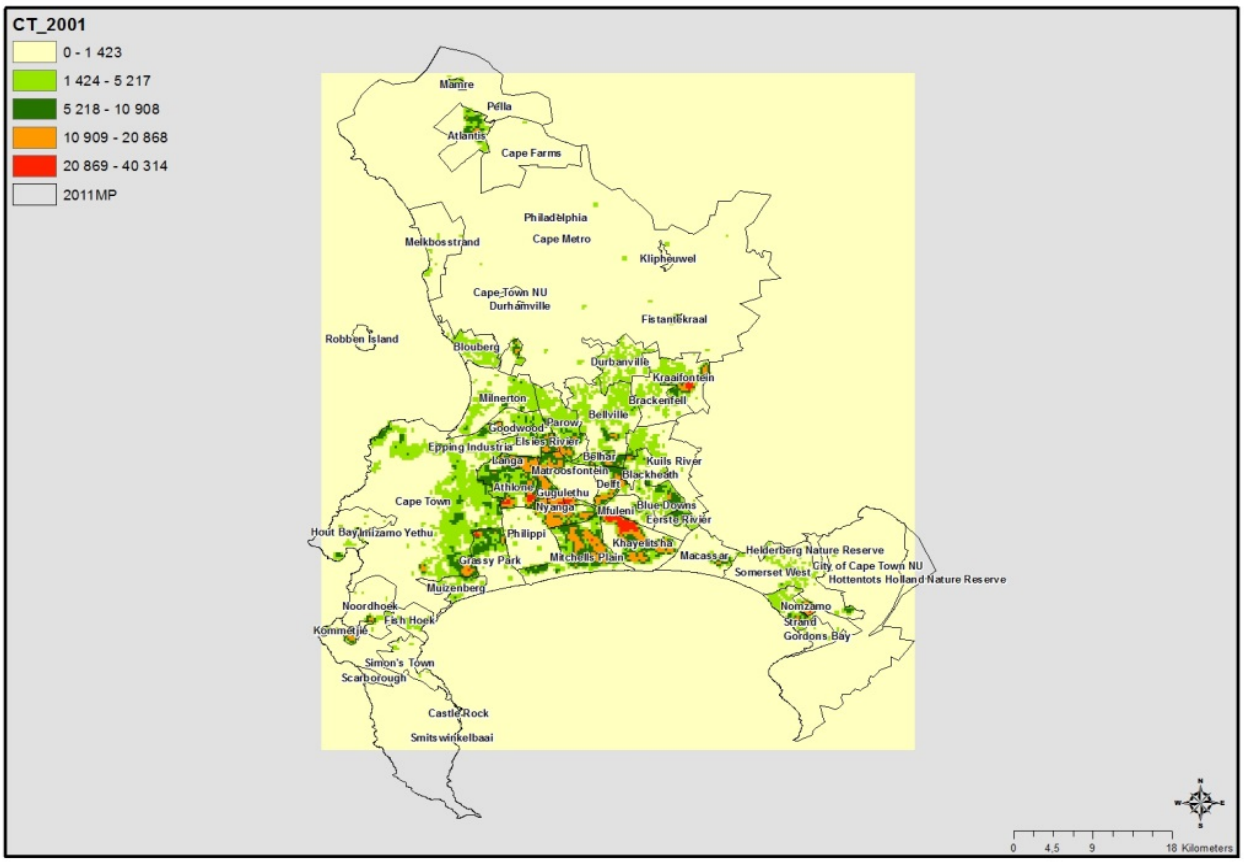
Map 6.2b: Urban population density of the City of Johannesburg, 2011



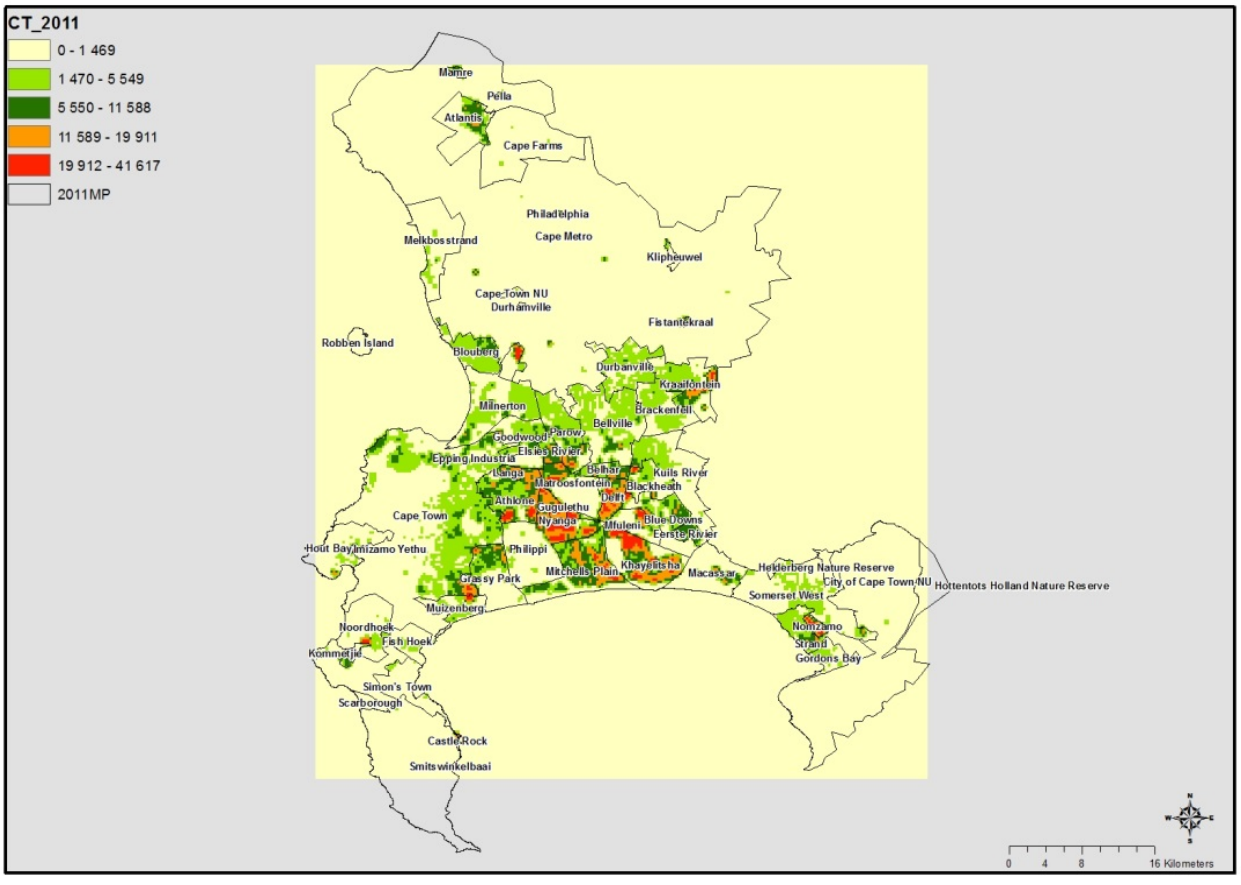
The City of Johannesburg, as seen in Map 6.2b also displays marked densification in all residential areas as well as growth of the built-up areas between 2001 and 2011. With Soweto dominating the maps of 2001 and 2011, areas such as Diepsloot in the north, Ivory Park in the north-east, Alexandra and the Johannesburg Central areas of Berea and Hillbrow are the densest areas for both years.

Significant new developments since 2001 are visible in the north-east, i.e. Midrand along the N1 as well as north of Soweto and to the north-west with two dense areas in 2011, namely Zandspruit and Cosmo City.

Map 6.3a: Urban population density of the City of Cape Town, 2001



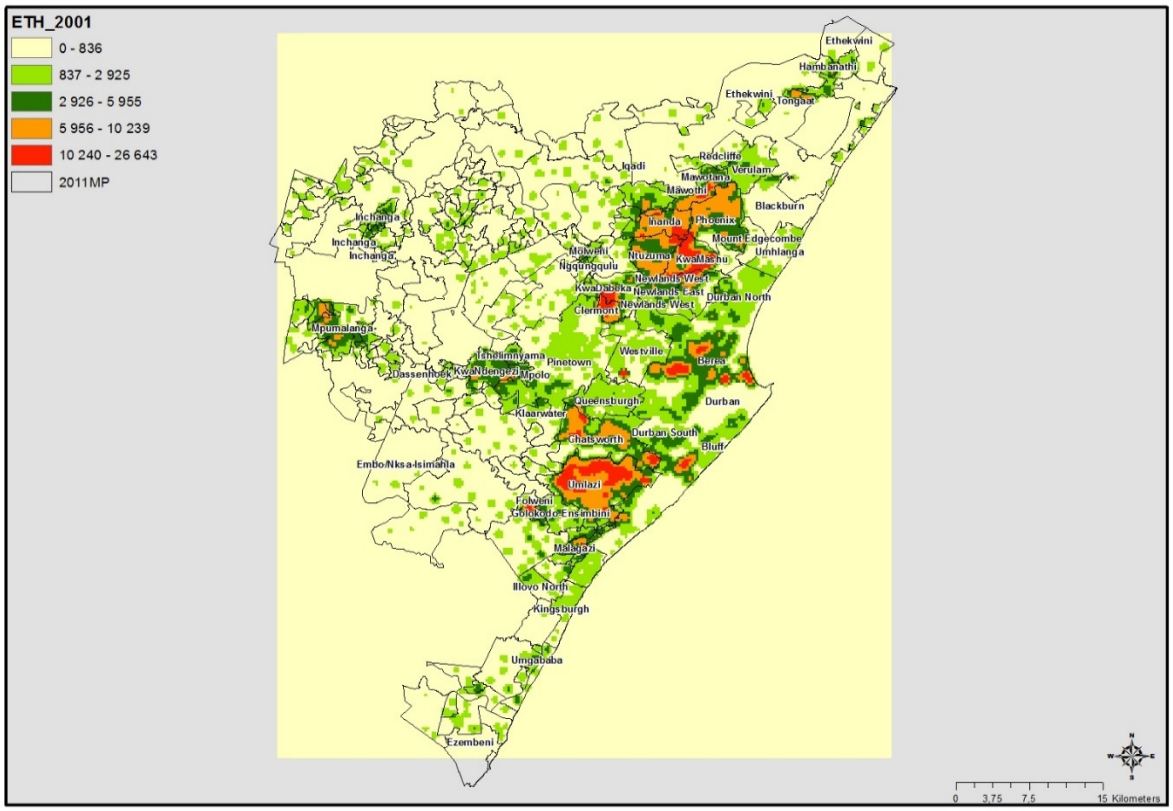
Map 6.3b: Urban population density of the City of Cape Town, 2011



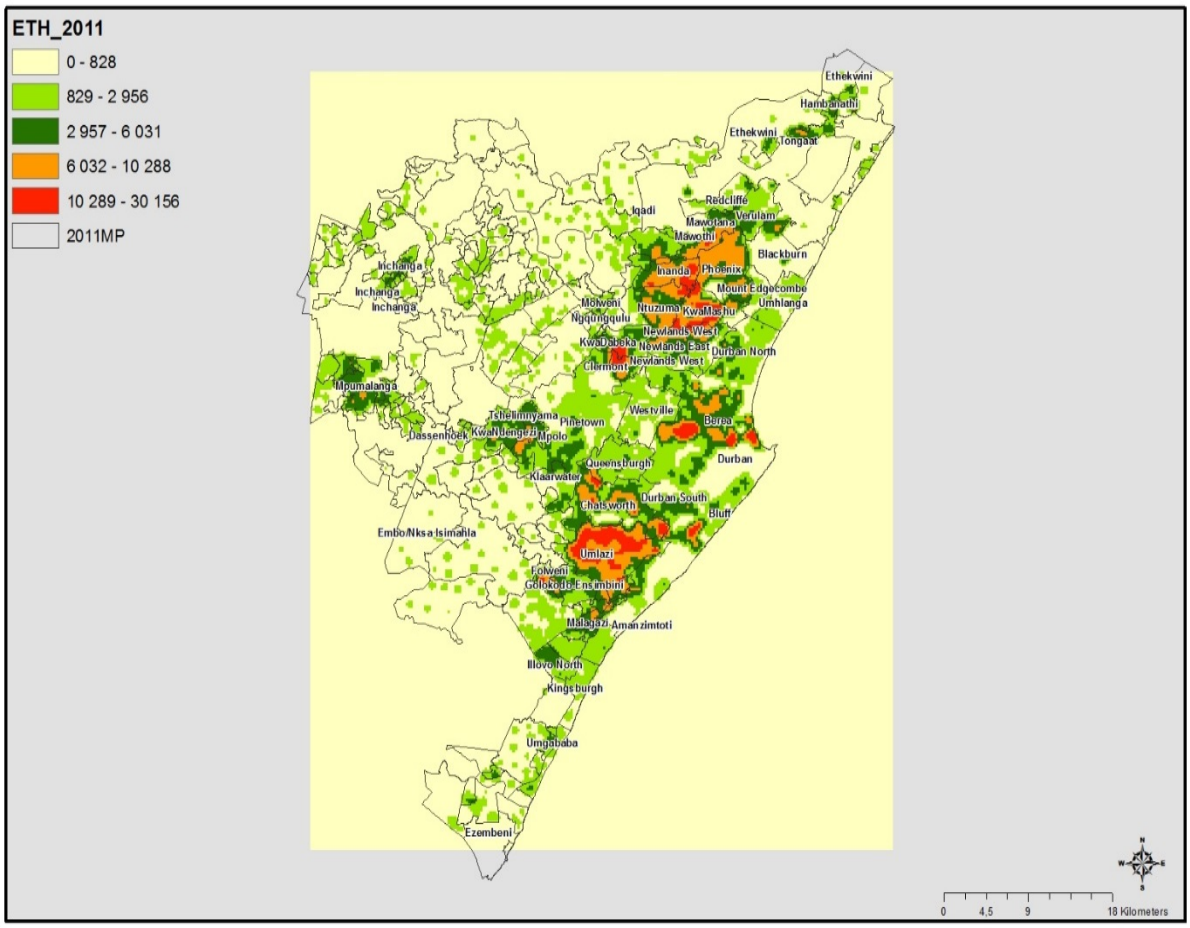
In 2001, most of the City of Cape Town's densest areas were centred around the Cape Town International Airport, namely Langa, Gugulethu, Nyanga, Crossroads, Brown's Farm, and the north-western part of Khayelithsa, as indicated on Map 6.3a above. Smaller pockets of dense areas around the outskirts are visible, such as Avondale (Atlantis) in the north, Kleinbegin (Kraaifontein) in the east, Nonwakze to the south-east near Strand, as well as Lavender Hill and Hanover Park to the west of the grouping of densest areas. Most of these areas were previously black or coloured-designated residential areas.

In 2011, the same areas are dominant, but covering a bigger area and with the addition of Mfuleni and Delft around the airport. Areas such as Masiphumelele and Imizamo Yethu near the south-east coast as well as Dunoon near Blouberg are visible as small pockets of very dense areas in 2011.

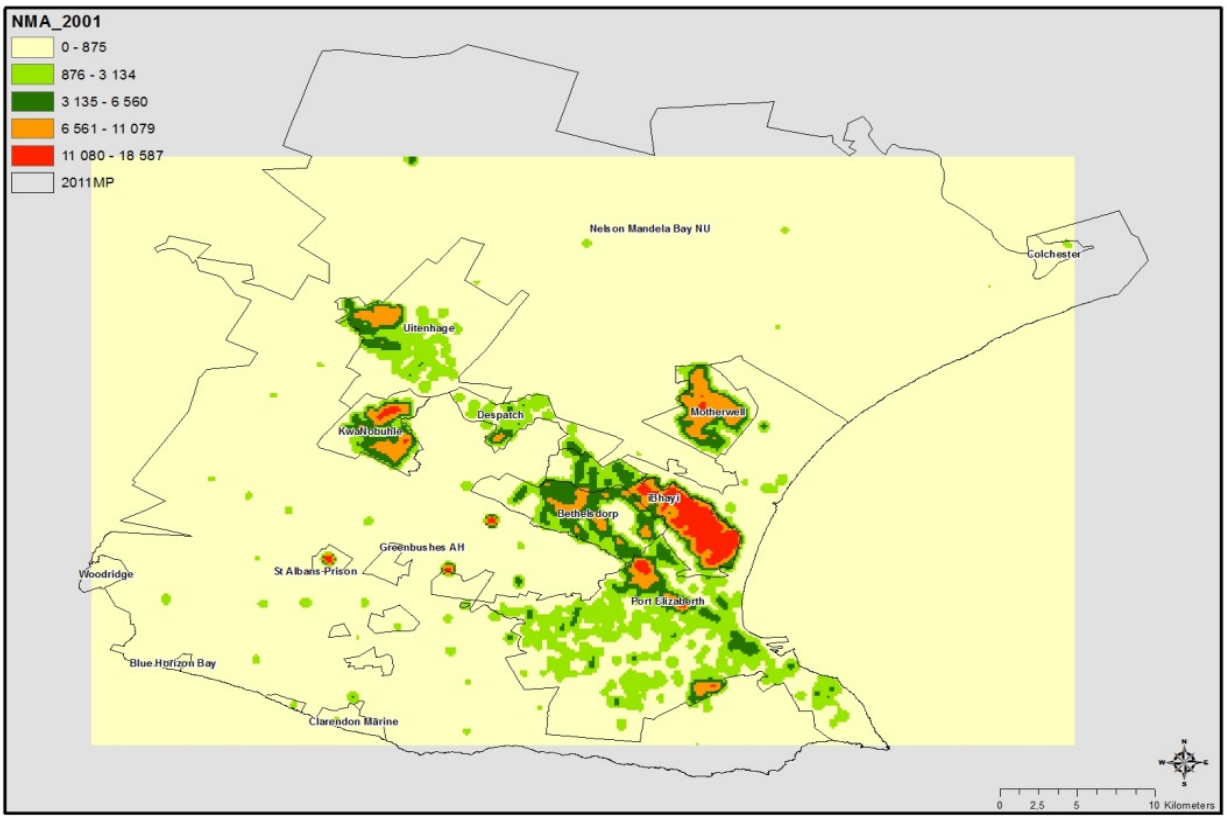
Map 6.4a: Urban population density of the City of eThekwini, 2001



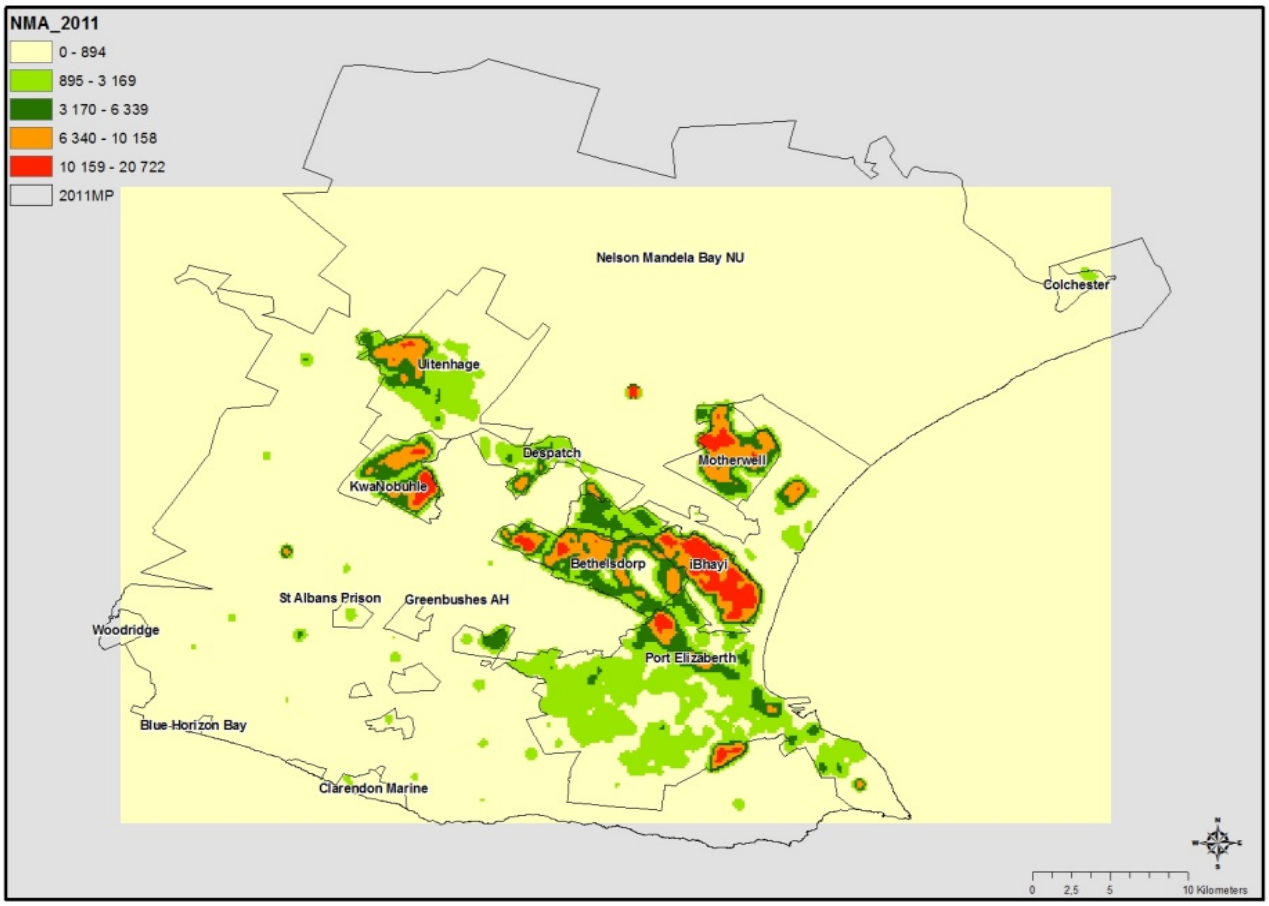
Map 6.4b: Urban population density of the City of eThekwini, 2011



Map 6.5a: Urban population density of Nelson Mandela Bay, 2001



Map 6.5b: Urban population density of Nelson Mandela Bay, 2011



Maps 6.5a and 6.5b above show that the localities in the dense areas of Nelson Mandela Bay stayed mostly the same between 2001 and 2011, with the exception of the disappearance of a small informal area visible in 2001 and the appearance of two new developments on both sides of Motherwell.

Most of the change occurred in the Ibhayi area, which seems to have de-densified. Large part s of the Motherwell area in the north-east also looks less dense over the same timeframe. In the north-east, Rosedale and Langa as well as KwaNobuhle more south, are displaying dense areas with more or less similar patterns in both years. In comparison with 2001, the central area in 2011 has pockets of higher densities, for example in Booysen Park, Bethelsdorp, Acacia and Helenvale.

6.4 Changes in density of selected metropolitan areas

Table 6.2: Enumeration areas[1] that changed from other EA types in 2010 to residential in 2015

Province	From non-residential to residential formal cadastre			From non-residential to residential formal/informal/traditional no cadastre		
	Number of EAs	Total number of DUs	Average number of DUs	Number of EAs	Total number of DUs	Average number of DUs
Western Cape	125	22 513	180	30	4 905	164
Eastern Cape	172	12 684	74	321	11 274	35
Northern Cape	44	10 516	239	50	7 814	156
North West	76	16 949	223	22	2 858	130
KwaZulu-Natal	56	5 802	104	161	7 951	59
North West	55	14 394	262	190	18 938	100
Gauteng	137	35 022	256	143	24 422	171
Mpumalanga	71	8 671	122	152	14 551	96
Limpopo	141	16 794	119	304	26 397	87
South Africa	877	143 345	164	1 373	119 110	87

Source: Dwelling frame

Table 6.2 gives an indication of how rapidly residential areas expand within the country as it shows the changes that occurred over a 6-year period in the classification of Census 2011 enumeration areas (EAS) from other types to residential. However, it does not reflect additional units constructed during that time period in areas that were already classified as residential in 2011. In that time period, an additional 143 345 residential units were registered as part of formal residential development (cadastre) and 119 110 were constructed without registration/cadastre. The former could be formal dwellings on traditional land, informal dwellings and/or traditional dwellings. The provinces with the most formal units added were Gauteng and Western Cape, while those that did not go through a formal process were primarily in Limpopo, Gauteng and North West.

[1] For these EAs to be considered residential they should have at least 10 points classified as a DU, and the points classified as a DU should represent at least 70% of the DUs in the EA.

7. Urban integration

7.1 Introduction

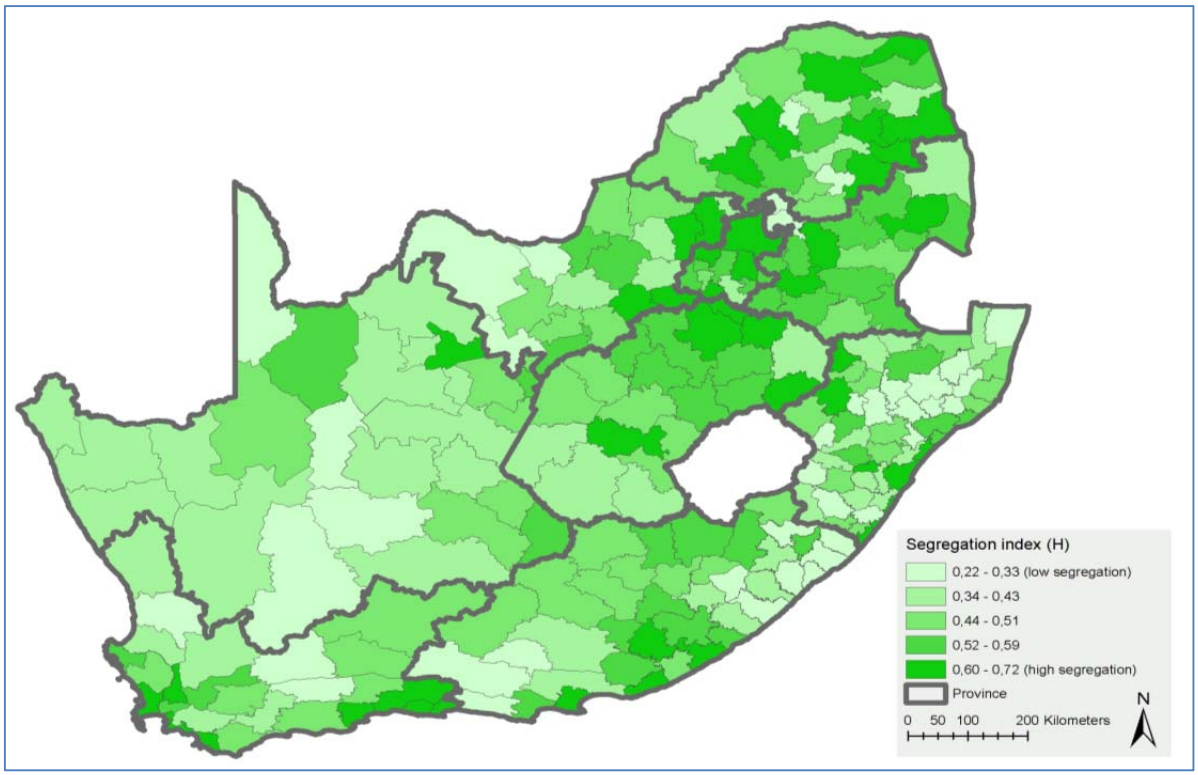
The spatial legacy of apartheid is well documented (e.g. COGTA 2014, HS 2014, NDP 2030). The spatial planning imperatives at the time were framed within a political context that was designed to keep people apart along racial lines and, by default, socio-economically as well. In addition to creating racial sub-divisions, this form of planning often placed black workers on the peripheries of urban settlements far from work opportunities. In the social contract for human settlements (HS, 2014) there was a renewed commitment towards using housing and human settlement development as an opportunity to break these patterns while constructing settlements that were integrated and aimed at reducing social and economic inequalities. This chapter will specifically look at the extent to which racial integration has been achieved.

Theil's entropy index (Massey and Denton, 1998) was used in this study to calculate the degree of racial segregation/integration for all municipalities in South Africa, using population data from Census 2011. For more information about this method, see Section 2. The index is represented by the measure *H*, which indicates the evenness of spread of particular characteristics; in this case, race. Areas with higher values of *H* have less uniform racial distributions in residential space, while areas with lower values of *H* exhibit more uniform racial distributions. *H* varies between 0, which represents perfect integration, and 1, which represents perfect segregation.

Census 1996 and Census 2011 data of the four race groups – black African, coloured, white and Indian/Asian – were used in the calculation.

7.2 Segregation results using enumeration areas as the base

Map 7.1: Racial segregation by local municipality, Census 2011



Map 7.1 maps all municipalities according to racial segregation, as determined by Theil's entropy index. The darker the colour of the municipality, the more racially segregated it is. The provinces with the highest average values of *H* were Gauteng, Free State, Mpumalanga and Limpopo.

Table 7.1: The segregation performance of local municipalities per province in South Africa

Rank	Number of municipalities	Average national rank for LMs in province	Average H segregation index for LMs in the province	% lowest quintile (1)	% quintile 2	% quintile 3	% quintile 4	% highest quintile (5)
Western Cape	25	4	0,49	16	20	28	24	12
Eastern Cape	39	6	0,46	26	15	28	23	8
Northern Cape	27	7	0,42	15	33	33	15	4
Free State	20	2	0,52	20	10	20	25	25
KwaZulu-Natal	51	7	0,42	25	18	29	14	14
North West	19	5	0,47	26	11	26	16	21
Gauteng	10	1	0,57	20	0	10	30	40
Mpumalanga	18	2	0,52	11	0	11	22	56
Limpopo	25	3	0,51	12	12	24	32	20

Source: Census 2011

Table 7.1 summaries the segregation index of municipalities per province and shows that even though Gauteng has the highest average segregation index value per municipality in the country, Mpumalanga which was ranked second jointly with Free State, actually had 56% of its municipalities in the highest quintile and as many as 78% in quintiles four and five on the national ranking list of municipalities. Gauteng had 70% of its municipalities on quintiles four and five of the national ranking list, whilst Limpopo and Free State had 52% and 50% respectively.

Table 7.2: The 10 most and 10 least segregated local municipalities in South Africa (in terms of race), 1996

	Rank	Municipality	Province	H
Most segregated	1	Nelson Mandela Bay	Eastern Cape	0,83
	2	eThekwini	KwaZulu-Natal	0,82
	3	Mogalakwena	Limpopo	0,81
	4	City of Cape Town	Western Cape	0,80
	5	Msunduzi	KwaZulu-Natal	0,79
	6	uMhlathuze	KwaZulu-Natal	0,79
	7	Newcastle	KwaZulu-Natal	0,78
	8	Emfuleni	Gauteng	0,78
	9	Emnambithi/Ladysmith	KwaZulu-Natal	0,77
	10	Mossel Bay	Western Cape	0,77
Least segregated	225	Nkandla	KwaZulu-Natal	0,34
	226	Dr JS Moroka	Mpumalanga	0,34
	227	Nongoma	KwaZulu-Natal	0,33
	228	Ngquza Hill	Eastern Cape	0,33
	229	Kou-Kamma	Eastern Cape	0,33
	230	Midvaal	Gauteng	0,33
	231	Kagisano/Molopo	North West	0,31
	232	Mier	Northern Cape	0,28
	233	!Kheis	Northern Cape	0,26
	234	Kwa Sani	KwaZulu-Natal	0,19

Source: Census 1996

Table 7.2 shows that Nelson Mandela Bay was the most segregated municipality in 1996, followed by eThekwini and Mogalakwena. The City of Cape Town was the fourth most segregated municipality in 1996, with a segregation index (H) of 0,80.

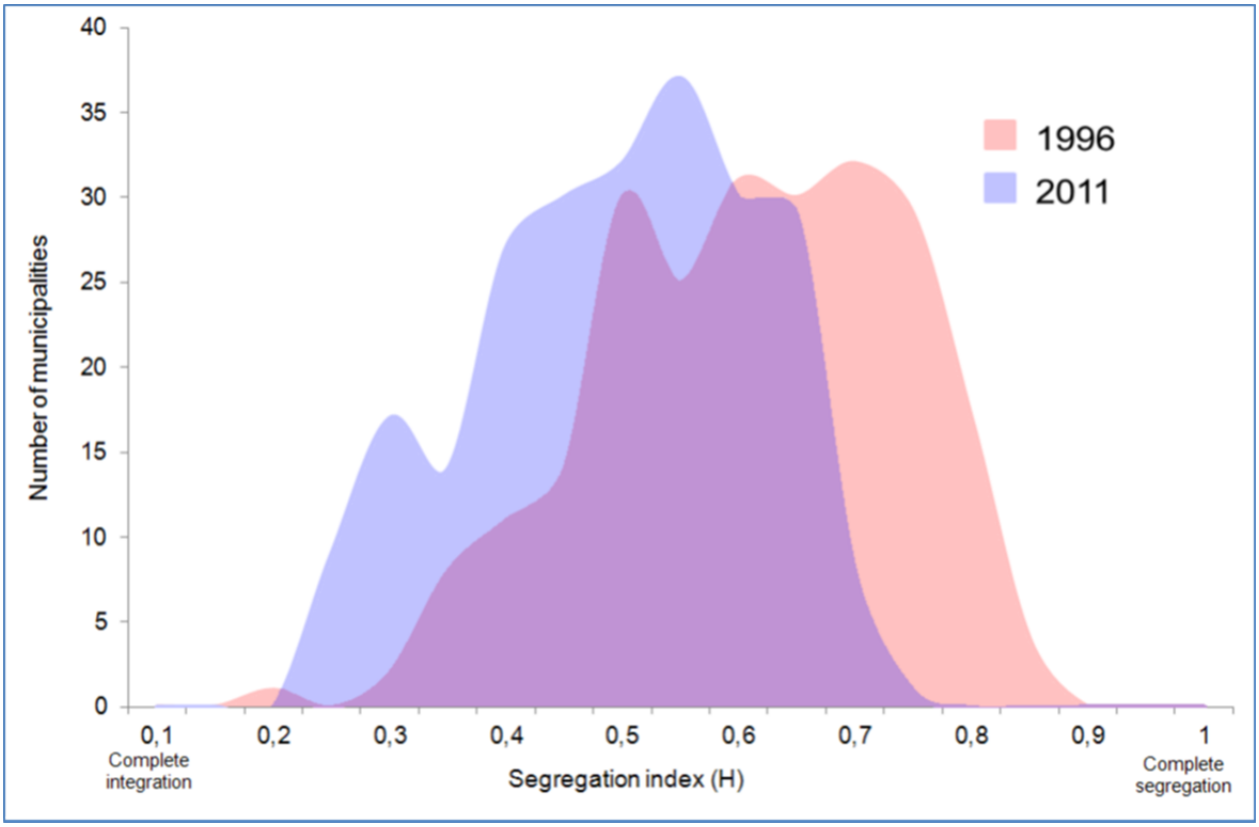
Table 7.3: The 10 most and 10 least segregated local municipalities in South Africa, 2011

	Rank	Municipality	Province	H
Most segregated	1	Overstrand	Western Cape	0,72
	2	Nelson Mandela Bay	Eastern Cape	0,70
	3	eThekwini	KwaZulu-Natal	0,69
	4	Ndlambe	Eastern Cape	0,69
	5	Mogalakwena	Limpopo	0,68
	6	City of Cape Town	Western Cape	0,67
	7	Newcastle	KwaZulu-Natal	0,66
	8	Msunduzi	KwaZulu-Natal	0,65
	9	Ga-Segonyana	Northern Cape	0,65
	10	Metsimaholo	Free State	0,65
Least segregated	225	Thembisile Hani	Mpumalanga	0,25
	226	!Kheis	Northern Cape	0,25
	227	Indaka	KwaZulu-Natal	0,25
	228	Nongoma	KwaZulu-Natal	0,24
	229	Hlabisa	KwaZulu-Natal	0,24
	230	Nqutu	KwaZulu-Natal	0,24
	231	Maphumulo	KwaZulu-Natal	0,23
	232	Dr JS Moroka	Mpumalanga	0,23
	233	Ulundi	KwaZulu-Natal	0,23
	234	Umzumbe	KwaZulu-Natal	0,22

Source: Census 2011

Table 7.3 lists the 10 most racially segregated municipalities, as well as the 10 least segregated municipalities in South Africa, according to Census 2011 data on race. The most segregated municipality, according to Theil's entropy index, was Overstrand in Western Cape, followed by Nelson Mandela Bay in Eastern Cape. The provinces that contributed the most to the top ten list of the most segregated municipalities were KwaZulu-Natal (3 municipalities), Western Cape (2 municipalities) and Eastern Cape (2 municipalities).

Figure 7.1: Distribution of local municipalities along the segregation scale ,1996 and 2011



Source: Census 1996 and 2011

Overall, municipalities have become less segregated (i.e. more racially integrated) between 1996 and 2011, with municipalities shifting down the segregation scale (Figure 7.1). Of the 234 municipalities, 218 became more racially integrated between 1996 and 2011, whilst only 16 municipalities became more segregated.

Table 7.4 shows that the municipality of Hlabisa exhibited the highest decrease in the segregation index. Thus according to Theil's entropy index, of all the municipalities, Hlabisa experienced the largest change towards integration and an H value of 1.

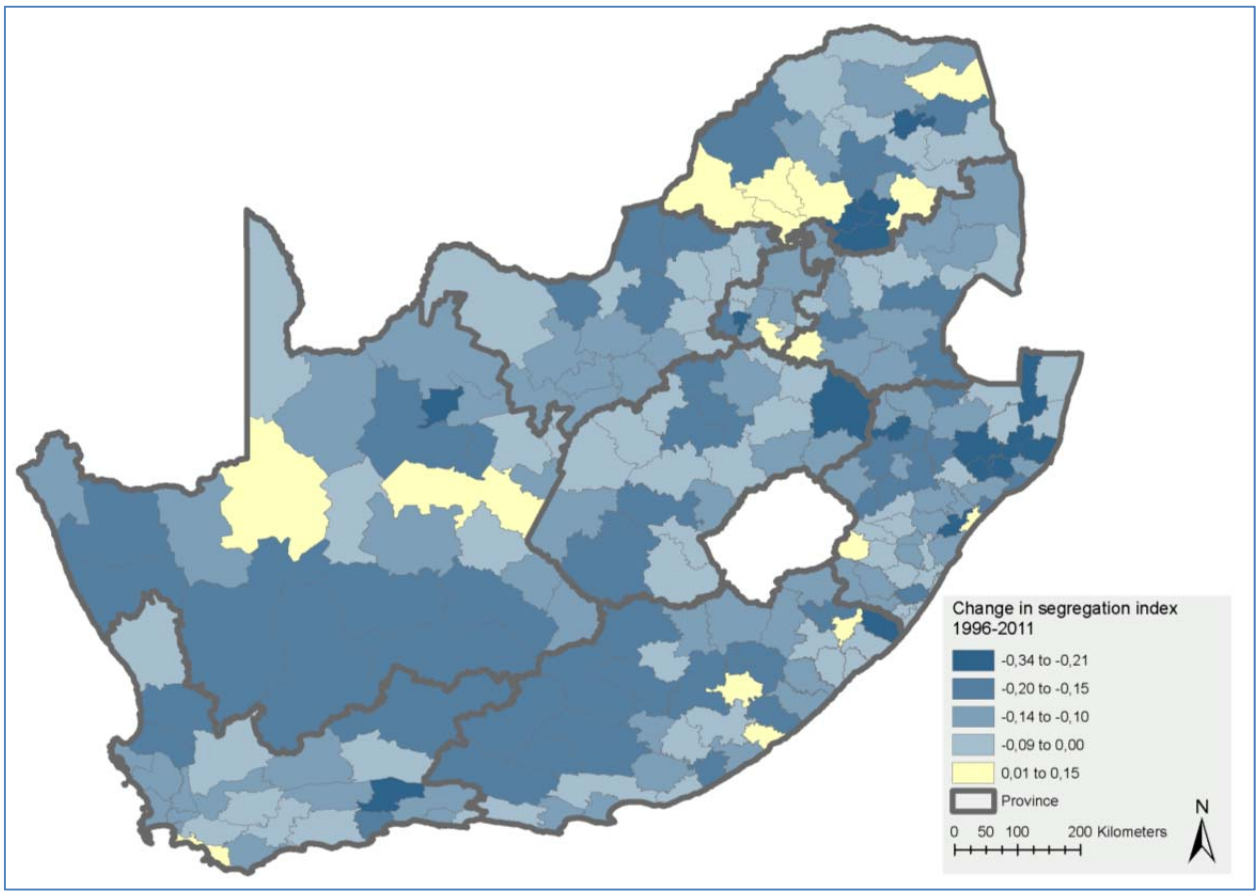
Table 7.4: Top 5 municipalities that have become more integrated between 1996 and 2011 (those municipalities that exhibited decreases in H)

Municipality	Province	H: 1996	H: 2011	Change
Hlabisa	KwaZulu-Natal	0,58	0,24	-0,34
Makhuduthamaga	Limpopo	0,60	0,30	-0,30
Mbizana	Eastern Cape	0,58	0,30	-0,27
Westonaria	Gauteng	0,69	0,45	-0,25
Ulundi	KwaZulu-Natal	0,47	0,23	-0,24

Table 7.5: Top 5 municipalities that have become more segregated between 1996 and 2011 (those municipalities that exhibited increases in H)

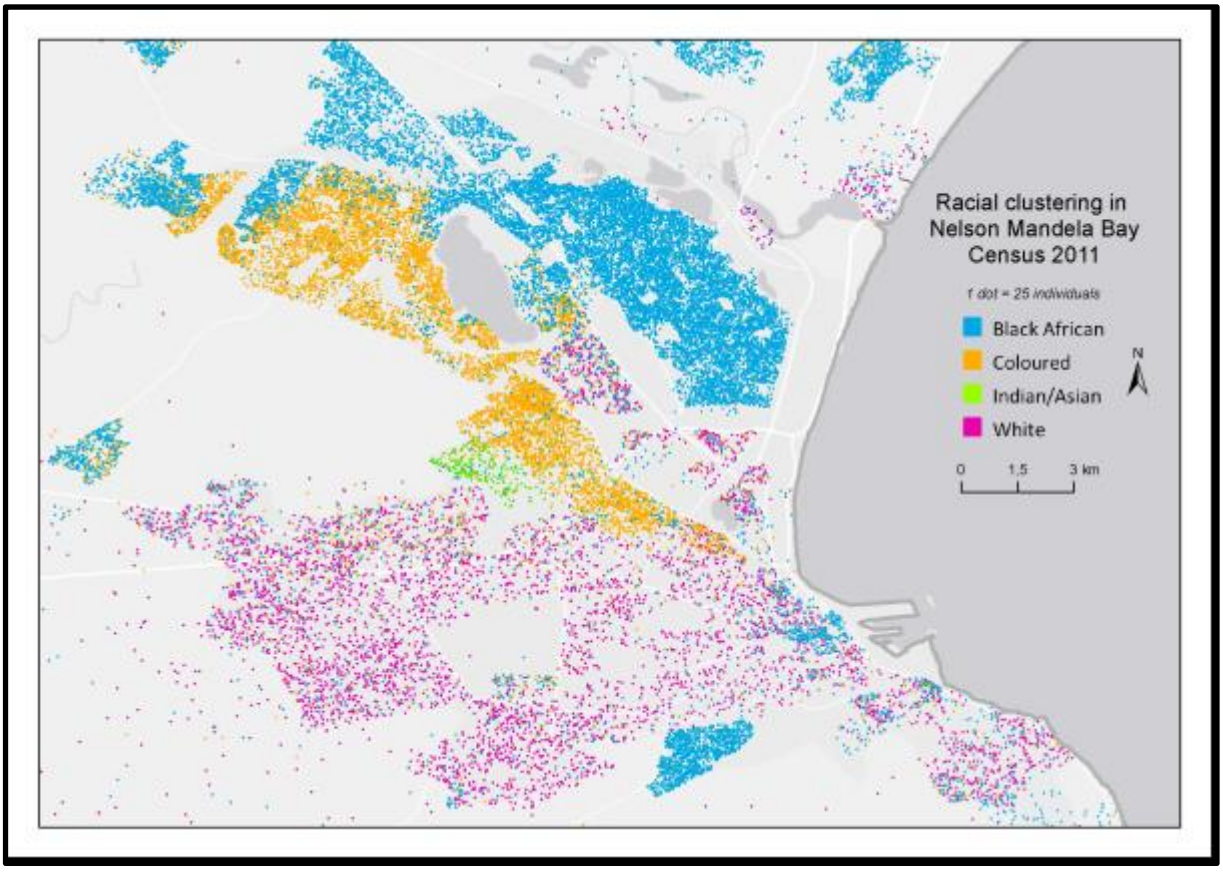
Municipality	Province	H: 1996	H: 2011	Change
Ntabankulu	Eastern Cape	0,40	0,54	0,15
Modimolle	Limpopo	0,50	0,61	0,11
Midvaal	Gauteng	0,33	0,43	0,10
Kwa Sani	KwaZulu-Natal	0,19	0,29	0,10
Mookgopong	Limpopo	0,45	0,54	0,09

Map 7.2: Municipalities that have become more integrated or segregated between 1996 and 2011



Map 7.2 shows the municipalities that have become more integrated since 1996 (i.e. exhibited a decrease in *H*) as well as those that have become more segregated (i.e. exhibited an increase in *H*). The municipalities that have become more integrated are shown in blue: the darker the colour, the higher the change towards integration. The 16 municipalities that became more segregated are shown in yellow.

Map 7.3: Racial clustering in Nelson Mandela Bay, Census 2011



Map 7.3 shows racial clustering in a part of Nelson Mandela Bay. Despite some residential mixing in some of the areas, Nelson Mandela Bay was the second most segregated municipality in South Africa when using Census 2011 data.

7.3 Relationship between the degree of segregation and SAMPI

The South African Multiple Poverty index (SAMPI) is a composite index that considers indicators related to housing and service delivery, health, education and employment in order to determine whether a household should be considered as deprived or not.

The following indicators are used to calculate the following MPI measures:

1) **Headcount** – the percentage of learners that are deprived according to the multidimensional poverty index. The index defines a learner as multi-dimensionally deprived if the composite score for all the indicators is above 50%.

2) **Intensity** – the intensity of poverty for the deprived learners as indicated by the headcount is measured by the proportion of deprivations those deprived people are experiencing.

3) **South African Multidimensional Poverty Index (MPI)** – a product of the headcount and the intensity.

Table 7.6: Pearson correlation coefficients of the correlation between the segregation index value (H) and the MPI indicators for municipalities, 2011

Indicator	Statistical measure	Segregation index value (0 perfect integration and 1 is perfect segregation)	Proportion in municipality considered deprived using 33% cut-off	Proportion in municipality considered deprived using 33% cut-off	MPI - Proportion in municipality considered deprived using 33% cut-off
Segregation index value (0 perfect integration and 1 is perfect segregation)	Pearson correlation coefficient	1,00000	-0,36482	0,24520	-0,35899
	P-Value	-	<0,0001	0,0002	<0,0001
Proportion in municipality considered deprived using 33% cut-off (head count)	Pearson correlation coefficient	-0,36482	1,00000	-0,00509	0,99931
	P-Value	<0,0001	-	0,9383	<0,0001
Proportion in municipality considered deprived using 33% cut-off (Intensity)	Pearson correlation coefficient	0,24520	-0,00509	1,00000	0,02459
	P-Value	0,0002	0,9383	-	<0,7083
Proportion in municipality considered deprived using 33% cut-off (MPI)	Pearson correlation coefficient	-0,35899	0,99931	0,02459	1,00000
	P-Value	<0,0001	<0,0001	<0,7083	-

Source: Census 2011

Table 7.6 shows that there are statistically significant negative correlations between the degree of racial integration in a municipality and the MPI value for that municipality. Thus municipalities with low scores on the MPI (less deprived municipalities) are more likely to be highly segregated than municipalities with high levels of multiple deprivation.

7.4 Summary and conclusion

In this section, Theil's entropy index was applied to the Census 1996 and Census 2011 data to measure the degree of racial integration and segregation in South African municipalities and metropolitan areas. It was found that some progress has been made during the reference period towards greater racial integration in urban areas. KwaZulu-Natal had the most municipalities classified amongst the top 10 most segregated and also amongst the 10 least segregated municipalities in the country. In this province, like elsewhere, the least segregated municipalities generally tend to be less racially diverse than those that are more segregated. Amongst the racially diverse metropolitan areas, Nelson Mandela Bay, eThekwini and the City of Cape Town performed the worst in terms of integration, whilst when looking at municipal averages within provinces, Gauteng, Free State and Limpopo still have a long way to go. An analysis of the correlation between the segregation index and the multiple poverty index for all municipalities showed that there is generally a strong negative correlation between segregation and multiple deprivation – the more deprived a municipality is the less likely it is to be segregated.

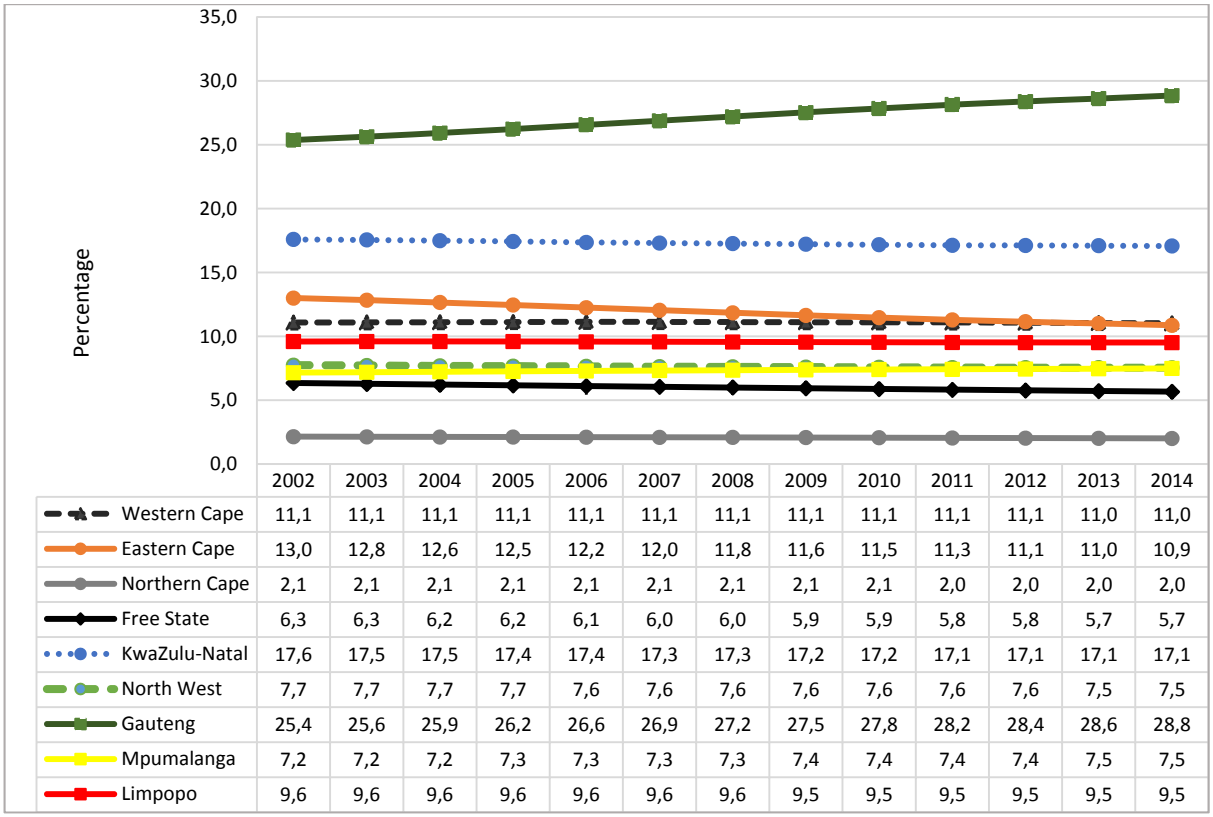
8. Households and migration patterns

8.1 Introduction

The ability of provincial and local government to provide access to adequate housing and basic services is closely aligned to the number of households to be serviced and the revenue base available for that. Two of the primary funding mechanisms, besides local taxes for housing and its aligned services, are the Human Settlement Development Grant and the Municipal Infrastructure Grant. This section will take a closer look at the demand side of service delivery, namely from the perspective of growth trends in the number of households that need access to adequate housing and basic services, as well as the link between these changes and migration patterns for the period 2001 and 2011.

8.2 Households, housing and service delivery

Figure 8.1: Percentage distribution of households across South Africa by province, 2002–2014



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Western Cape	11,1	11,1	11,1	11,1	11,1	11,1	11,1	11,1	11,1	11,1	11,1	11,0	11,0
Eastern Cape	13,0	12,8	12,6	12,5	12,2	12,0	11,8	11,6	11,5	11,3	11,1	11,0	10,9
Northern Cape	2,1	2,1	2,1	2,1	2,1	2,1	2,1	2,1	2,1	2,0	2,0	2,0	2,0
Free State	6,3	6,3	6,2	6,2	6,1	6,0	6,0	5,9	5,9	5,8	5,8	5,7	5,7
KwaZulu-Natal	17,6	17,5	17,5	17,4	17,4	17,3	17,3	17,2	17,2	17,1	17,1	17,1	17,1
North West	7,7	7,7	7,7	7,7	7,6	7,6	7,6	7,6	7,6	7,6	7,6	7,5	7,5
Gauteng	25,4	25,6	25,9	26,2	26,6	26,9	27,2	27,5	27,8	28,2	28,4	28,6	28,8
Mpumalanga	7,2	7,2	7,2	7,3	7,3	7,3	7,3	7,4	7,4	7,4	7,4	7,5	7,5
Limpopo	9,6	9,6	9,6	9,6	9,6	9,6	9,6	9,5	9,5	9,5	9,5	9,5	9,5

Source: GHS 2002 - 2014

The percentage contribution of households per province to the total number of households in South Africa is shown in Figure 8.1. As can be seen, the highest contributor to the total number of households in the country was Gauteng. This province also contributed increasingly larger percentages of households to the national total between 2002 and 2014. Northern Cape contributed the least number of households to the national total with uniform percentages of households between 2002 and 2014.

8.3 Internal migration

Table 8.1: Major inter-provincial migration streams during the period 2001–2011: Findings from the full Census 2011 dataset for all ages

Previous province (migration origin)	Current province (migration destination)									Total
	WC	EC	NC	FS	KZN	NW	GT	MP	LIM	
Western Cape		37 540	9 829	5 145	10 230	5 463	48 609	5 033	3 423	**125 272**
		1,8%	0,5%	0,2%	0,5%	0,3%	2,3%	0,2%	0,2%	**5,9%**
Eastern Cape	162 918		6 842	16 991	82 333	32 589	128 373	14 819	11 055	**455 920**
	7,7%		0,3%	0,8%	3,9%	1,5%	6,0%	0,7%	0,5%	**21,5%**
Northern Cape	16 541	3 248		7 241	4 075	10 530	15 087	3 193	1 822	**61 737**
	0,8%	0,2%		0,3%	0,2%	0,5%	0,7%	0,2%	0,1%	**2,9%**
Free State	12 214	7 863	6 799		7 922	22 966	71 668	10 276	5 147	**144 855**
	0,6%	0,4%	0,3%		0,4%	1,1%	3,4%	0,5%	0,2%	**6,8%**
KwaZulu-Natal	26 746	20 159	2 252	10 946		10 034	175 860	28 657	6 460	**281 114**
	1,3%	1,0%	0,1%	0,5%		0,5%	8,3%	1,4%	0,3%	**13,2%**
North West	7 343	3 873	16 256	9 634	4 542		89 845	8 521	14 023	**154 037**
	0,4%	0,2%	0,8%	0,5%	0,2%		4,2%	0,4%	0,7%	**7,3%**
Gauteng	72 590	37 433	9 225	31 113	54 113	78 407		61 316	51 867	**396 064**
	3,4%	1,8%	0,4%	1,5%	2,6%	3,7%		2,9%	2,4%	**18,6%**
Mpumalanga	7 375	3 118	1 659	4 610	11 669	11 061	100 065		21 443	**161 000**
	0,4%	0,2%	0,1%	0,2%	0,6%	0,5%	4,7%		1,0%	**7,6%**
Limpopo	9 090	3 800	2 098	5 433	6 399	25 909	256 305	36 445		**345 479**
	0,4%	0,2%	0,1%	0,3%	0,3%	1,2%	12,1%	1,7%		**16,3%**
Total	**314 817**	**117 034**	**54 960**	**91 113**	**181 283**	**196 959**	**885 812**	**168 260**	**115 240**	**2 125 478**
	14,8%	**5,5%**	**2,6%**	**4,3%**	**8,5%**	**9,3%**	**41,7%**	**7,9%**	**5,4%**	**100,0%**

Source: Census 2011: Migration Dynamics in South Africa

Table 8.1 shows that Gauteng was the main migration destination in South Africa, followed by Western Cape and KwaZulu-Natal. Eastern Cape was the main origin for inter-provincial migratory moves. The 10 main inter-provincial migration streams in the country (only those inter-provincial migratory moves that were more than 3 per cent were selected) were as follows:

1. Limpopo to Gauteng (12,1% of all inter-provincial migratory moves)
2. KwaZulu-Natal to Gauteng (8,3%)
3. Eastern Cape to Western Cape (7,7%)
4. Eastern Cape to Gauteng (6,0%)
5. Mpumalanga to Gauteng (4,7%)
6. North West to Gauteng (4,2%)
7. Eastern Cape to KwaZulu-Natal (3,9%)
8. Gauteng to North West (3,7%)
9. Gauteng to Western Cape (3,4%)
10. Free State to Gauteng (3,4%).

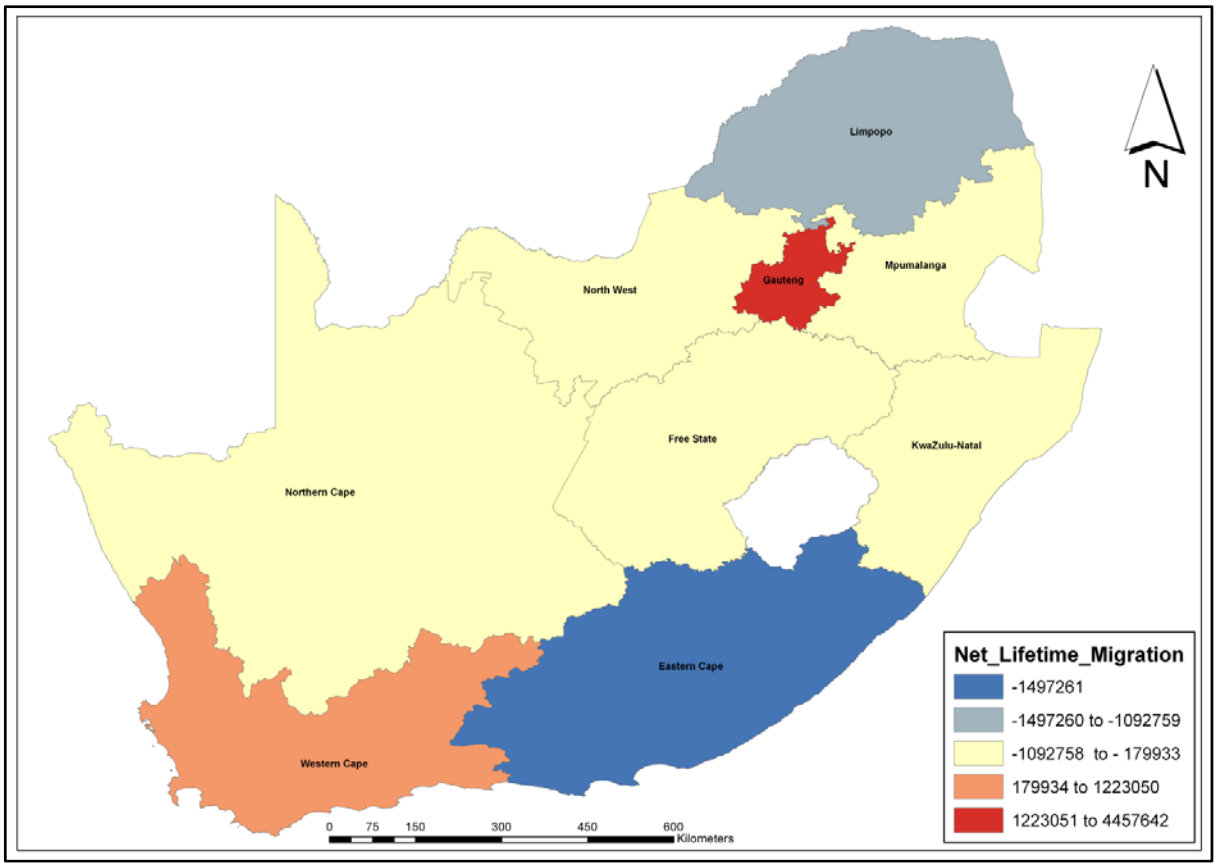
Table 8.2: Lifetime migration status by province, 2011

Province of enumeration	Total population	Non-migrants	Immigrants	In-migrants	Out-migrants	Net migration	% born outside the province
Eastern Cape	**6 456 724**	5 978 548	74 364	478 176	1 975 437	-1 497 261	7,4
Free State	**2 674 393**	2 314 021	67 608	360 372	672 905	-312 533	13,5
Gauteng	**12 064 476**	6 672 370	1 124 861	5 392 106	934 464	4 457 642	44,7
KwaZulu-Natal	**10 150 925**	9 146 295	167 048	1 004 630	997 901	6 729	9,9
Limpopo	**5 335 214**	4 802 769	162 578	532 445	1 625 204	-1 092 759	10,0
Mpumalanga	**3 996 635**	3 155 056	150 799	841 579	727 286	114 293	21,1
North West	**3 454 277**	2 678 272	150 474	776 005	596 072	179 933	22,5
Northern Cape	**1 127 391**	952 651	19 219	174 740	365 311	-190 571	15,5
Western Cape	**5 672 546**	4 027 679	256 459	1 644 867	421 817	1 223 050	29,0
Total	**50 932 581**	**39 727 661**	**2 173 410**	**11 204 920**	**8 316 397**	**0**	**22,0**

Note: Only household population was used
Source: Census 2011: Migration Dynamics in South Africa

Table 8.2 shows the difference between those who move in and those who move out (net migration). Net migration shows the overall gains and losses to each province as a result of lifetime migration. According to Table 8.2, Gauteng had the highest net migration, followed by Western Cape. A total of 6 672 370 individuals resident in Gauteng at the time of the census were also born in Gauteng (non-migrants), but an additional 5 392 106 lifetime migrants moved to Gauteng from other provinces in South Africa. Slightly more than a million (1 124 861) lifetime migrants moved to destinations outside South Africa. The total population of Gauteng was 12 064 476 according to Census 2011 and at the time, 44,7% of them were lifetime migrants.

Map 8.1: Net lifetime migration



Source: Census 2011: Migration Dynamics in South Africa

Map 8.1 clearly shows the spatial representation of the net population flows of lifetime migrants. We can see that Gauteng had the most gains in terms of lifetime migrants, followed by Western Cape, while Eastern Cape had the fewest lifetime migrants.

Table 8.3: Period migration (total), 2011

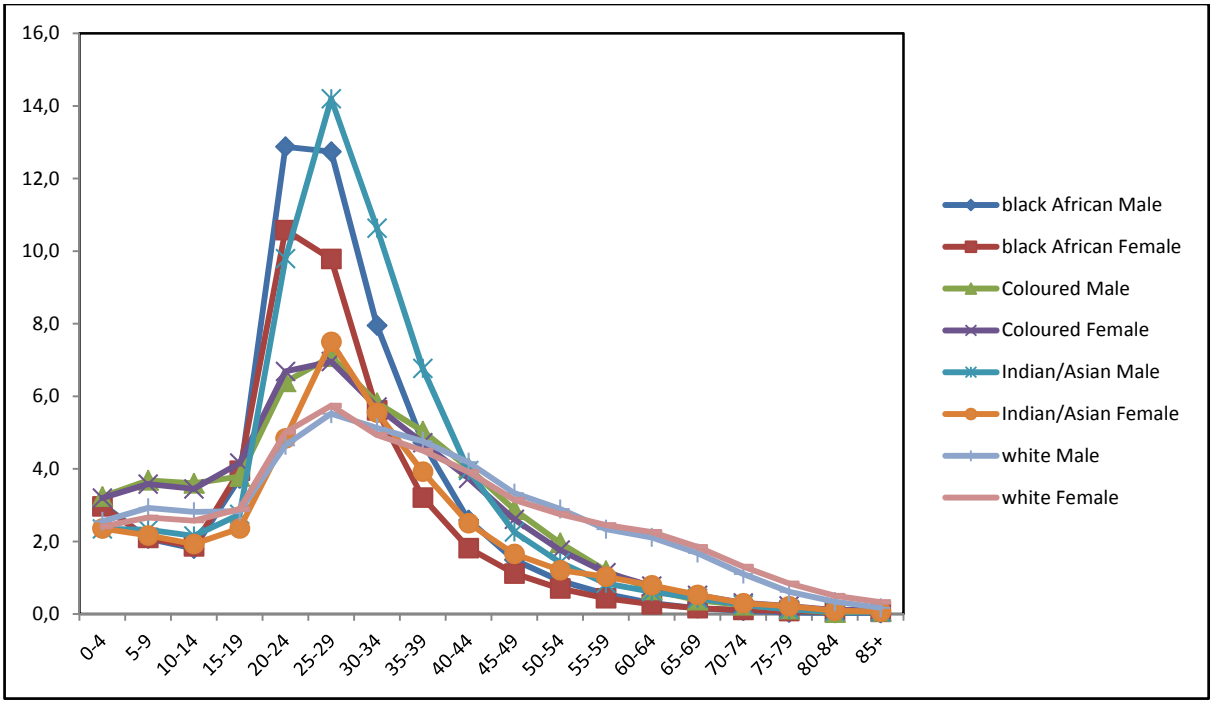
Province of enumeration	Total population	Non-migrants	Immi-grants	In-migrants	Out-migrants	Net migration	IRR in-migration	IRR out-migration	Migration effective-ness index
Eastern Cape	**6 440 841**	6 273 270	35 791	167 571	489 434	-321 863	38,9	165,4	-49
Free State	**2 666 287**	2 532 474	33 757	133 813	154 836	-21 023	75	126,4	-7,3
Gauteng	**11 999 957**	10 494 494	481 383	1 505 463	413 931	1 091 532	187,5	75,1	56,9
KwaZulu-Natal	**10 122 877**	9 840 702	74 168	282 175	306 121	-23 946	41,7	65,8	-4,1
Limpopo	**5 327 299**	5 102 662	99 764	224 637	401 353	-176 716	63	164	-28,2
Mpumalanga	**3 987 233**	3 728 436	72 296	258 797	183 919	74 878	97	100,4	16,9
North West	**3 442 074**	3 151 061	75 555	291 013	172 451	118 562	126,4	109	25,6
Northern Cape	**1 122 958**	1 055 390	7 081	67 568	70 047	-2 479	89,9	135,8	-1,8
Western Cape	**5 638 690**	5 174 710	110 495	463 98	139 745	324 235	123	53,9	53,7
Total	**50 748 216**	**47 353 199**	**990 290**	**3 395 017**	**2 331 837**				

Source: Census 2011: Migration Dynamics in South Africa
Note: Only household population was used. Unspecified information on period of movement has been excluded

Migration effectiveness was calculated by expressing net migration as a proportion of migration turnover, where turnover was the sum of gross inflows and outflows. Migration effectiveness can also have positive and negative values like net migration. In addition, it offers a measure of the extent to which net migration redistributes the population. Table 8.3 shows that Eastern Cape and Limpopo had the highest net out-migration representation of the turnover (with 49% and 28,2%, respectively). KwaZulu-Natal and Northern Cape experienced the lowest net out-migration representation of the turnover (with 4,1% and 1,8%, respectively), while Gauteng and Western Cape had the highest positive net migration representation of the turnover (with 56,9% and 53,7%, respectively).

Net migration is the difference between in-migration and out-migration, and can take on a negative and a positive value, depending on the direction of the migration. According to Table 8.3, Gauteng had the highest positive net migration, which means that a lot of people who migrate to Gauteng were from other provinces. Gauteng was followed by Western Cape and North West. On the other hand, Eastern Cape had the highest negative net migration of all the provinces, which means a lot more people migrated out of the Eastern Cape when compared to other provinces. Limpopo followed closely on the Eastern Cape. Northern Cape has the lowest negative net migration, while Free State had the lowest positive net migration compared to other provinces.

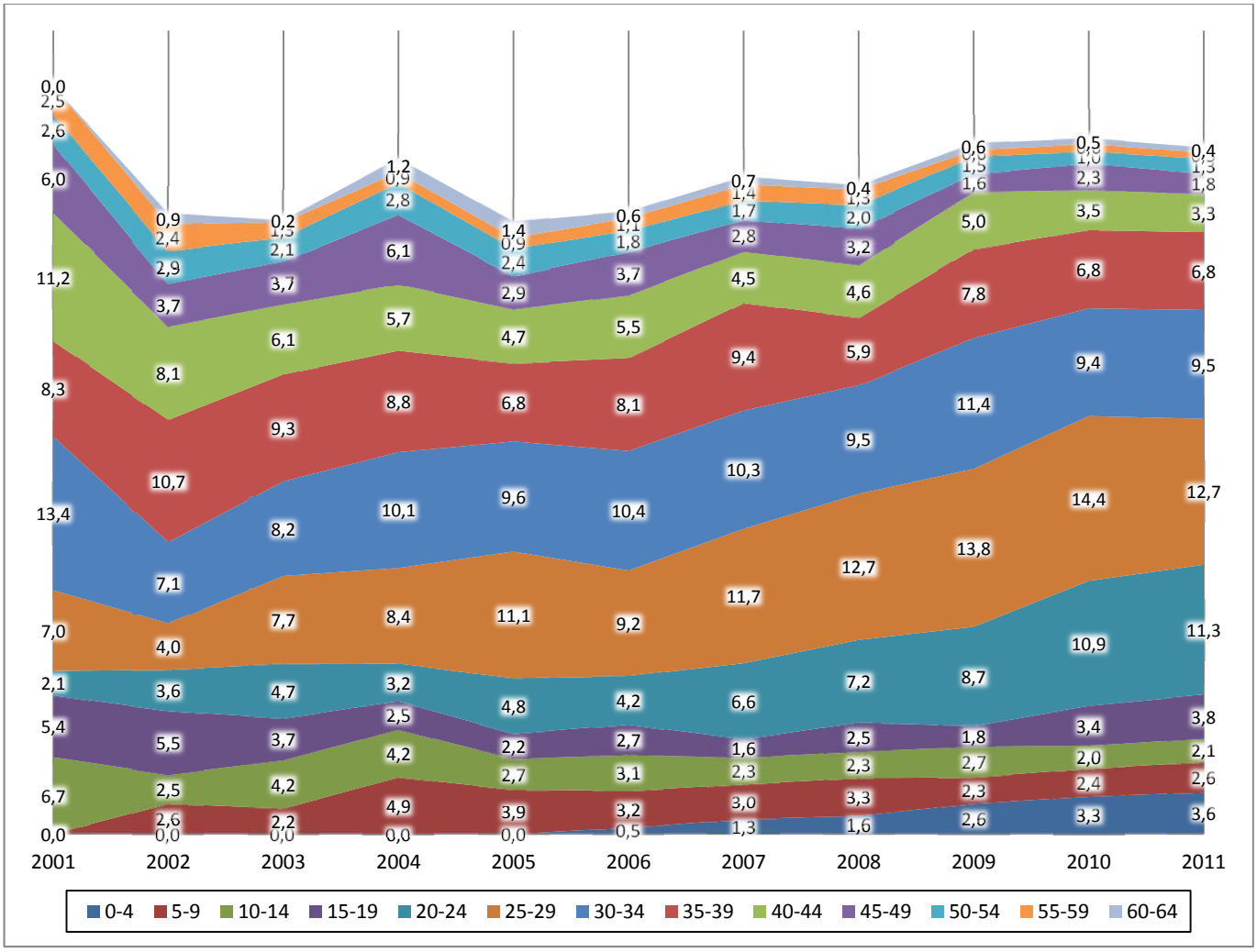
Figure 8.2: Distribution of migrants by age, sex and population group, 2011



Source: Census 2011: Migration Dynamics in South Africa

One of the most important and unique features of the South African landscape is the continued difference between the different population groups for most socio-economic and demographic phenomena. Figure 8.2 shows that all population groups experienced a migratory peak for young adults. At age 25–29, the Indian/Asian population had higher proportions of migrants, while at age groups 20–24 and 25–29, black African males were most likely to migrate. Migration peaked for all population groups around similar age groups. At age groups 65–69 and 85 and older, migration dropped to insignificantly low levels for most groups, except white males and females. In the case of the latter, this may signify locational changes after retirement.

Figure 8.3: Distribution of Indian/Asian male migrants, 2001 - 2011



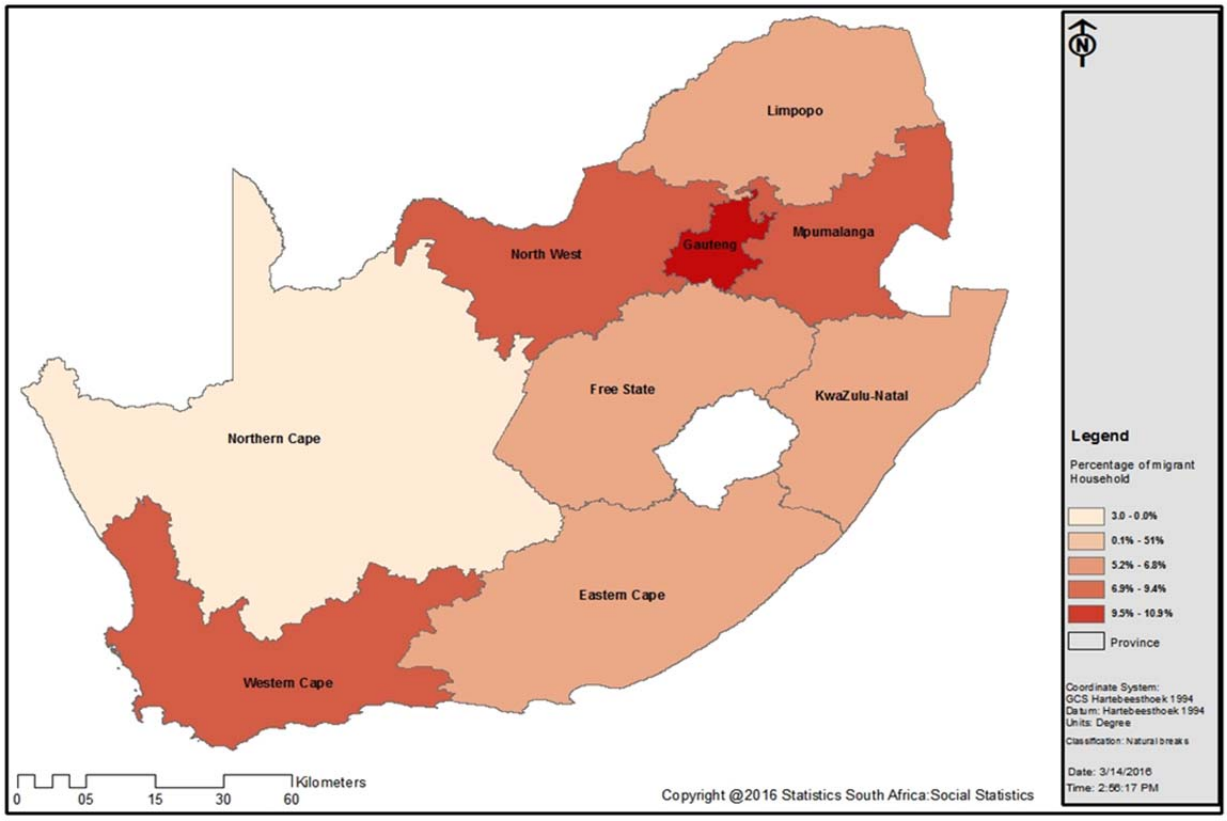
Source: Census 2011

Figure 8.3 focuses on the migratory patterns of Indian/Asian males between the age group '0-4' and '60-64' years of age. This analysis sought to further understand the rise in the Indian/Asian male population group, specifically in relation to the time period of its origin. Figure 8.2 showed that according to Census 2011 the age group '25-29' of this population group migrated more than any other population and age group in South Africa.

The migration patterns of Indian/Asian males in the age group '25-29' shows an upward trend between 2003 and 2011. The increase in this age group was the largest, in percentage terms, when compared with the patterns of other age groups. In 2011 this age group accounted for roughly 13% of the total Indian/Asian male migrant population, the largest proportion of this group.

Importantly, age groups '20-24';'25-29' also experienced an increasing trend, while the increases in the age group '0-4' point to increasing migration of new parents with their young children to seek greener pastures. Males in the age groups '40-44' and '45-49' became less likely to travel between 2001 and 2011.

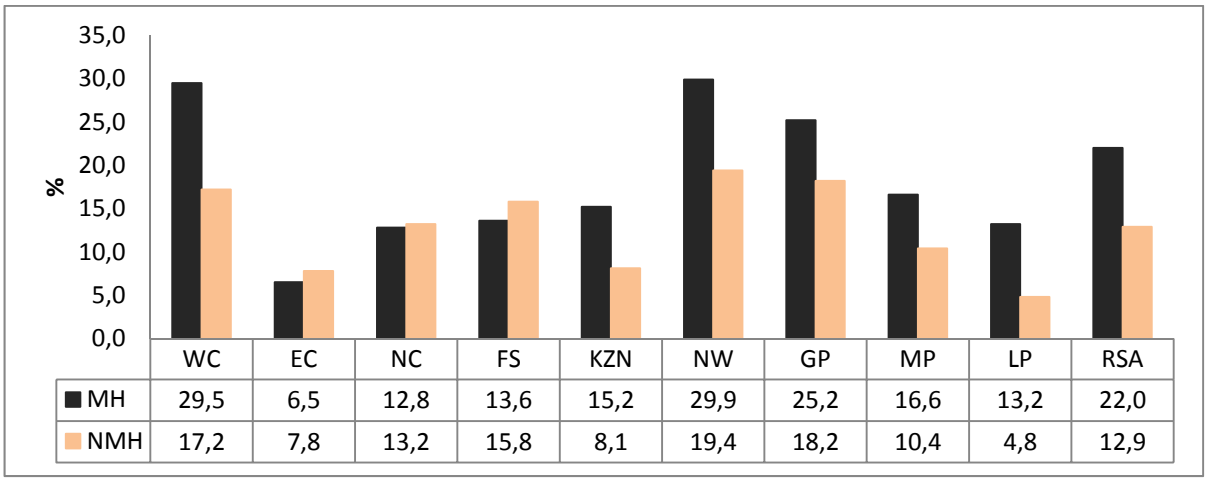
Map 8.2: Percentage distribution of migrant households in South Africa, 2011



Source: Census 2011: Migration Dynamics in South Africa

Map 8.2 demonstrates that Gauteng was the main migration destination province, followed by Western Cape. Gauteng and Western Cape had the largest proportion of migrant households (with 10,9% and 9,4%, respectively), whereas KwaZulu-Natal (3,0%) and Eastern Cape (3,7%) had the lowest proportion of migrant households.

Figure 8.4: Percentage distribution of migrant and non-migrant households by informal dwellings and province, 2011



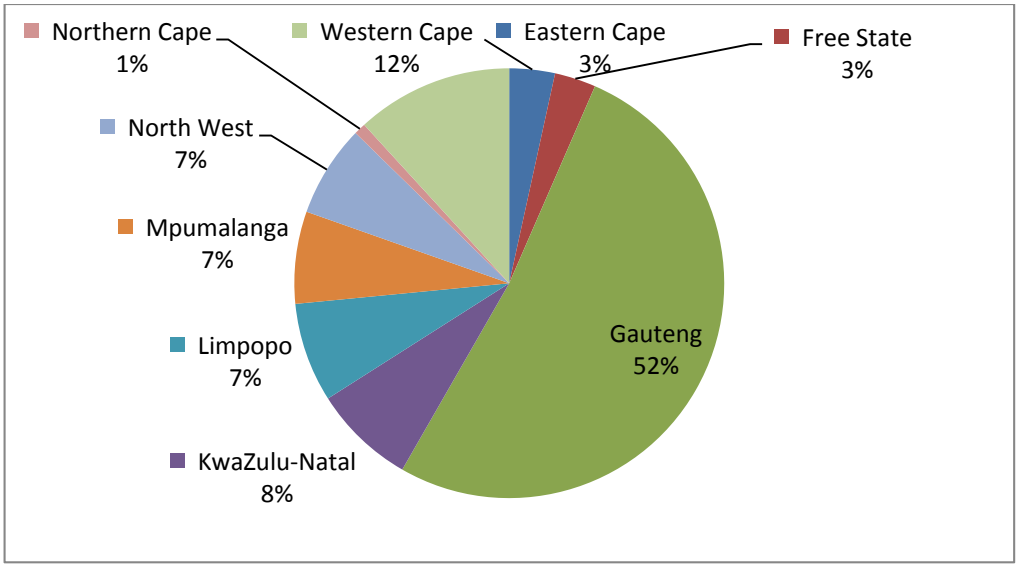
	WC	EC	NC	FS	KZN	NW	GP	MP	LP	RSA
MH	29,5	6,5	12,8	13,6	15,2	29,9	25,2	16,6	13,2	22,0
NMH	17,2	7,8	13,2	15,8	8,1	19,4	18,2	10,4	4,8	12,9

Note: MH = Migrant household and NMH = Non-migrant household
Source: Census 2011: Migration Dynamics in South Africa

As indicated in Figure 8.3, migrant households (22,0%) were more likely to reside in informal dwellings than non-migrant households (12,9%). Western Cape, KwaZulu-Natal, North West, Gauteng, Mpumalanga and Limpopo all had the same pattern. The only exceptions were Eastern Cape and Free State where there was a higher proportion of non-migrant households residing in informal dwellings than migrant households. The percentages of migrant households and non-migrant households living in informal dwellings in Northern Cape were the same (13%).

8.4 International migration

Figure 8.5: Distribution of immigrants by province of residence, 2011



Source: Census 2011: Migration Dynamics in South Africa

According to Figure 8.4, Gauteng has the highest percentage of international immigrants with 52%, followed by Western Cape (12%) and KwaZulu-Natal (8%). Limpopo, Mpumalanga and North West (the latter three provinces each have 7% international immigrants), Eastern Cape (3%), Free State (3%) and Northern Cape (1%) had the lowest percentage of international immigrants. Most of the immigrants tend to migrate to Gauteng in search of job opportunities.

Table 8.4 on the next page shows that most residents of South African municipalities were non-migrants (91,7%), followed by internal migrants (5,3%), and immigrants (1,5%). Most of the non-migrants reside in the core metro areas (32,5%) and large towns (17,9%), whilst internal migrants (2,3%) and immigrants (0,8%) mostly found themselves in the core metro areas.

Table 8.4: Municipal settlement type by migrant status: Males and females, all population groups, 2011

	Destination local municipality type – 2011													
	Core metro		Secondary city		Large town		Small town		Mostly rural		Unknown		Total	
	N	% of total population	N	% of total population	N	% of total population	N	% of total population	N	% of total population	N	% of total population	N	% of total population
Internal migrants	1 150 327	2,3%	452 812	0,9%	591 009	1,2%	279 666	0,6%	216 682	0,4%	~	~	2 690 495	5,3%
Immigrants	416 859	0,8%	103 264	0,2%	112 312	0,2%	81 059	0,2%	26 529	0,1%	~	~	740 023	1,5%
Total migrants	1 567 186	3,1%	556 076	1,1%	703 320	1,4%	360 725	0,7%	243 211	0,5%	~	~	3 430 518	6,7%
Non-migrant	16 546 394	32,5%	6 725 989	13,2%	9 117 552	17,9%	6 925 877	13,6%	7 389 657	14,5%	~	~	46 705 469	91,7%
Unspecified	396 621	0,8%	108 433	0,2%	100 588	0,2%	46 478	0,1%	31 482	0,1%	141 859	0,3%	825 461	1,2%
Total population	18 510 201	36,3%	7 390 499	14,5%	9 921 461	19,5%	7 333 079	14,4%	7 664 350	15,0%	141 859	0,3%	50 961 448	100,0%

Source: Census 2011: Migration Dynamics in South Africa

8.5 Summary and conclusion

A good understanding of migration and population growth patterns is necessary for effective urban planning and service delivery. This section, using information from the Migration Dynamics in South Africa: Census 2011 report published in 2016, showed that Gauteng had the most gains in terms of lifetime migrants, followed by Western Cape. Eastern Cape had the least lifetime migrants and lost a significant number of its population that migrated to other provinces. In 2011, 10,9% of the population of Gauteng consisted of lifetime migrants, followed by 9,4% in Western Cape.

The increase in population trends is also reflected in the steep growth in the number of households living in Gauteng. The proportional contribution of this province to the total number of households in South Africa increased from 25% in 2002 to 29% in 2014. KwaZulu-Natal contributed a further 17% of households to the total, and Western Cape and Eastern Cape contributed a total of 11% each. Even though black African males aged 25–29 were most likely to migrate, the age group 25–29 is the peak age range for migration amongst all population groups. Furthermore, females were less likely to migrate than males in all population groups. Migration amongst white males and females gradually taper off towards the age of 85. In all other population groups, limited migratory movement takes place after the age of 55 years.

9. General housing and tenure status profile

9.1 Introduction

The NDP 2030 envisions the establishment of viable, socially and economically integrated communities, situated in areas with progressive accessibility to economic, health, educational and social amenities. It furthermore sets the goal of ensuring that households have access to permanent residential structures with secure tenure that provides privacy and protection against the elements. These structures should also have access to potable water, adequate sanitary facilities (including waste disposal) and domestic electricity supply.

This section of the report will provide a general overview of progress made over time in this regard, with specific reference to the types of dwellings households occupy, land tenure status, the socio-economic and demographic profiles of households occupying these dwellings, and aspects such as the number of rooms and value of the dwelling.

9.2 Access to and changes in dwelling type occupancy

Table 9.1: Percentage of the types of dwellings households occupied 5 years ago compared to current dwelling types, 2009 and 2013

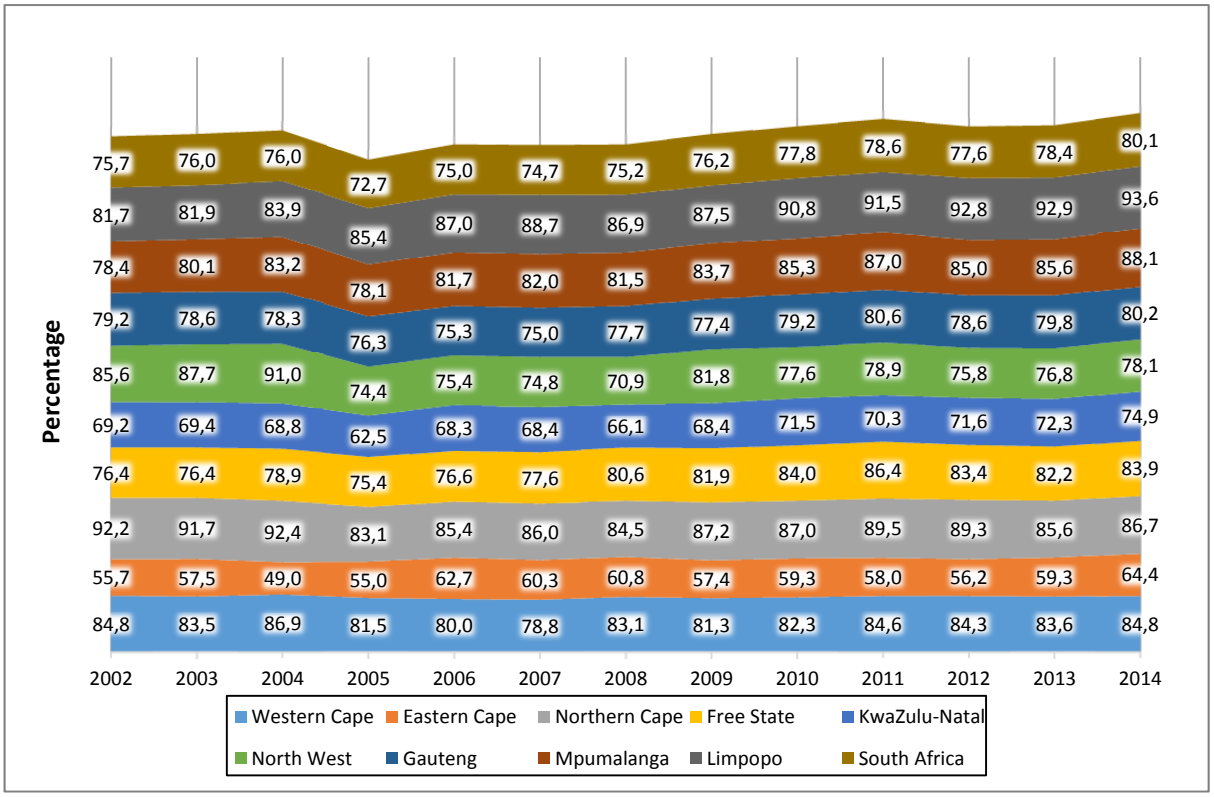
	2009					2013				
Type of dwelling occupied 5 years ago	**Formal dwelling type**	**Informal dwelling: backyard**	**Informal dwelling: settlement**	**Traditional dwelling type**	**Caravan/tent and other dwelling type**	**Formal dwelling type**	**Informal dwelling: backyard**	**Informal dwelling: settlement**	**Traditional dwelling type**	**Caravan/tent and other dwelling type**
Formal dwelling type	89,5	4,4	2,1	1,0	5,8	91,0	11,2	6,9	1,4	25,7
Informal dwelling: backyard	0,8	83,5	0,8	*	1,5	1,0	74,2	1,6	0,1	0,4
Informal dwelling: settlement	1,5	0,5	89,2	0,1	*	1,7	2,6	82,2	0,1	*
Traditional dwelling type	1,3	0,3	0,4	93,6	0,7	1,3	1,0	1,5	94,8	2,2
Caravan/tent and other dwelling type	0,1	0,2	*	0,2	75,8	0,2	0,3	*	0,1	55,8
Unspecified	6,8	11,1	7,5	5,2	16,2	4,9	10,6	7,8	3,5	15,8
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

Source: GHS 2009 and 2014

*Unweighted numbers of 3 or less are too low to provide reliable estimates

Table 9.1 shows that in 2009, 89,5% households reported that they occupied a formal dwelling type and that they also occupied a formal dwelling five years earlier. When comparing the five-year period between 2009 and 2013, three per cent of households indicated that they used to live in informal dwellings (backyard or settlements) five years previously, but were currently living in formal dwellings. A further 18,1% were living in informal dwellings (backyard or settlement) in 2013, but used to live in formal dwellings five years previously.

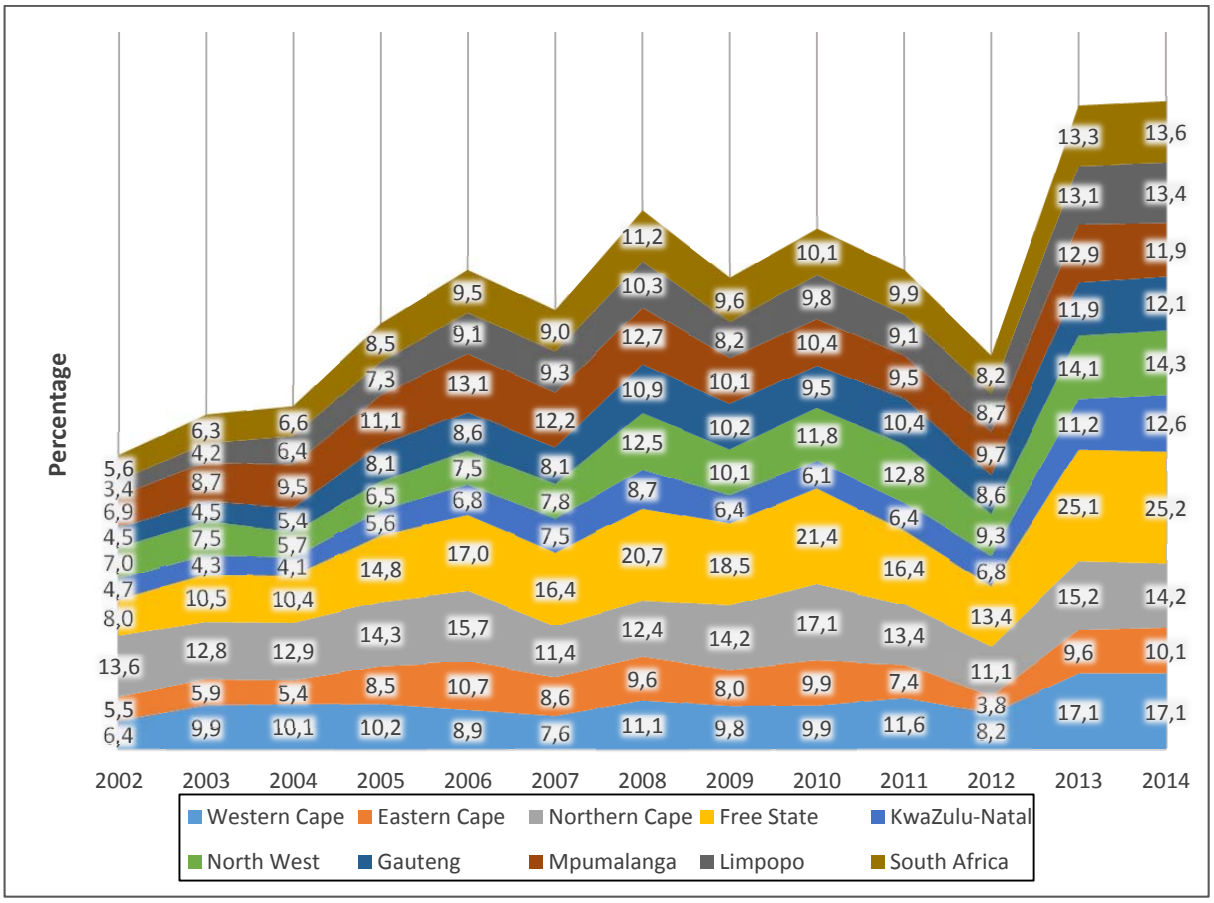
Figure 9.1: Percentage distribution of households living in formal dwellings by province, 2002–2014



Source: GHS 2002-2014

Generally, the percentage of households who live in formal dwellings increased across all provinces during the reference period, with the biggest improvement found in Limpopo. The only two provinces where the percentage of households living in formal dwellings decreased, were Northern Cape and North West. This may be as a result of a combination of boundary changes (Northern Cape gained some traditional areas from North West) as well as the adoption of the Mineral and Petroleum Resources Development Act (MPRDA) and the South African Mining Charter in 2002, which had the unintended consequences that workers receiving 'living out' housing allowances instead of accommodation, opted to live in informal dwellings rather than to invest in rental or other formal housing.

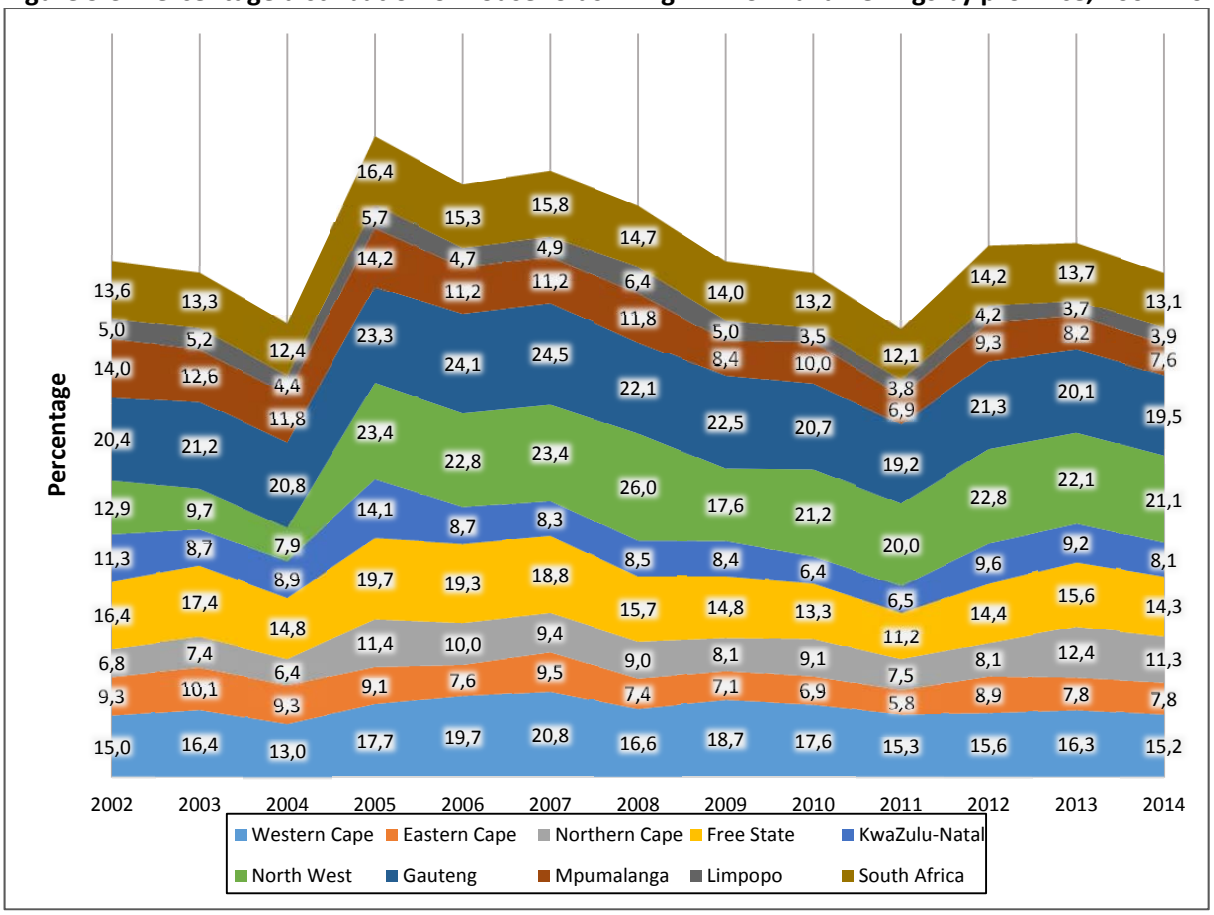
Figure 9.2: Percentage distribution of households where at least one member has received a government housing subsidy/RDP housing, 2002–2014



Source: GHS 2002-2014

Figure 9.2 confirms that nationally, the percentage distribution of households who received a government housing subsidy/RDP housing has increased from 5,6% in 2002 to 13,6% in 2014. Residents of Free State and Western Cape were most likely to benefit from a government housing subsidy/RDP housing. Of the two provinces, the most significant increase during the reference period was found in Free State with an increase from 8,0% in 2002 to 25,2% in 2014. The reasons for the dip in 2012 are unclear as one would expect a cumulative increase over time.

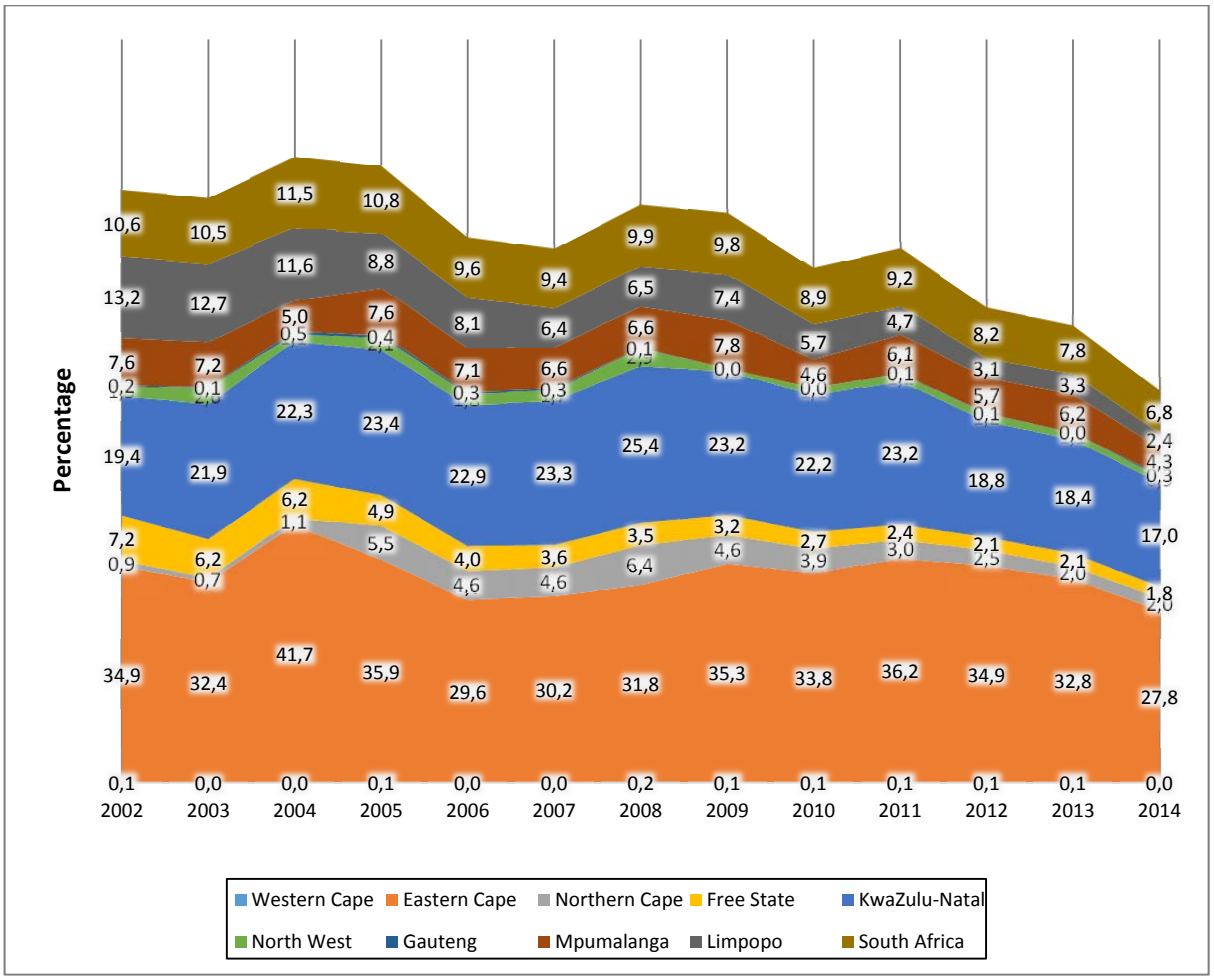
Figure 9.3: Percentage distribution of households living in informal dwellings by province, 2002–2014



Source: GHS 2002-2014

Between 2002 and 2014, households living in informal dwellings in South Africa decreased slightly from 13,6% to 13,1% with a peak of 16,4% in 2006. Limpopo consistently had the lowest percentages of households living in informal dwellings. North West experienced a significant increase in the percentage of households living in informal dwellings from 12,9% in 2004 to 21,1% in 2014.

Figure 9.4: Percentage distribution of households living in traditional dwellings by province, 2002–2014



Source: GHS 2002-2014

According to Figure 9.4 there has been an overall decline in the percentage of households that live in structures built with traditional material between 2002 and 2014. This decline could be a result of households' choice of building materials for their dwellings, which has recently tended to be based on formal building materials such as cement and bricks. Migratory patterns also reflect a move by households from rural areas to urban areas, which could account for the increase in households in informal dwellings in urban centres accompanied by a decrease in households living in traditional dwellings.

The Eastern Cape and KwaZulu-Natal had the highest percentage of households living in traditional dwellings when compared to other provinces. However, the percentage of households living in traditional dwellings has been constant in Gauteng and Western Cape, while there has been a decline in Free State from 7,2% to 1,8%. The percentage distribution of households living in traditional dwellings in North West and Mpumalanga has been fluctuating over time with no definite trends.

9.3 Household size and number of rooms

Table 9.2: Average size of households by type of dwelling, 2002–2014

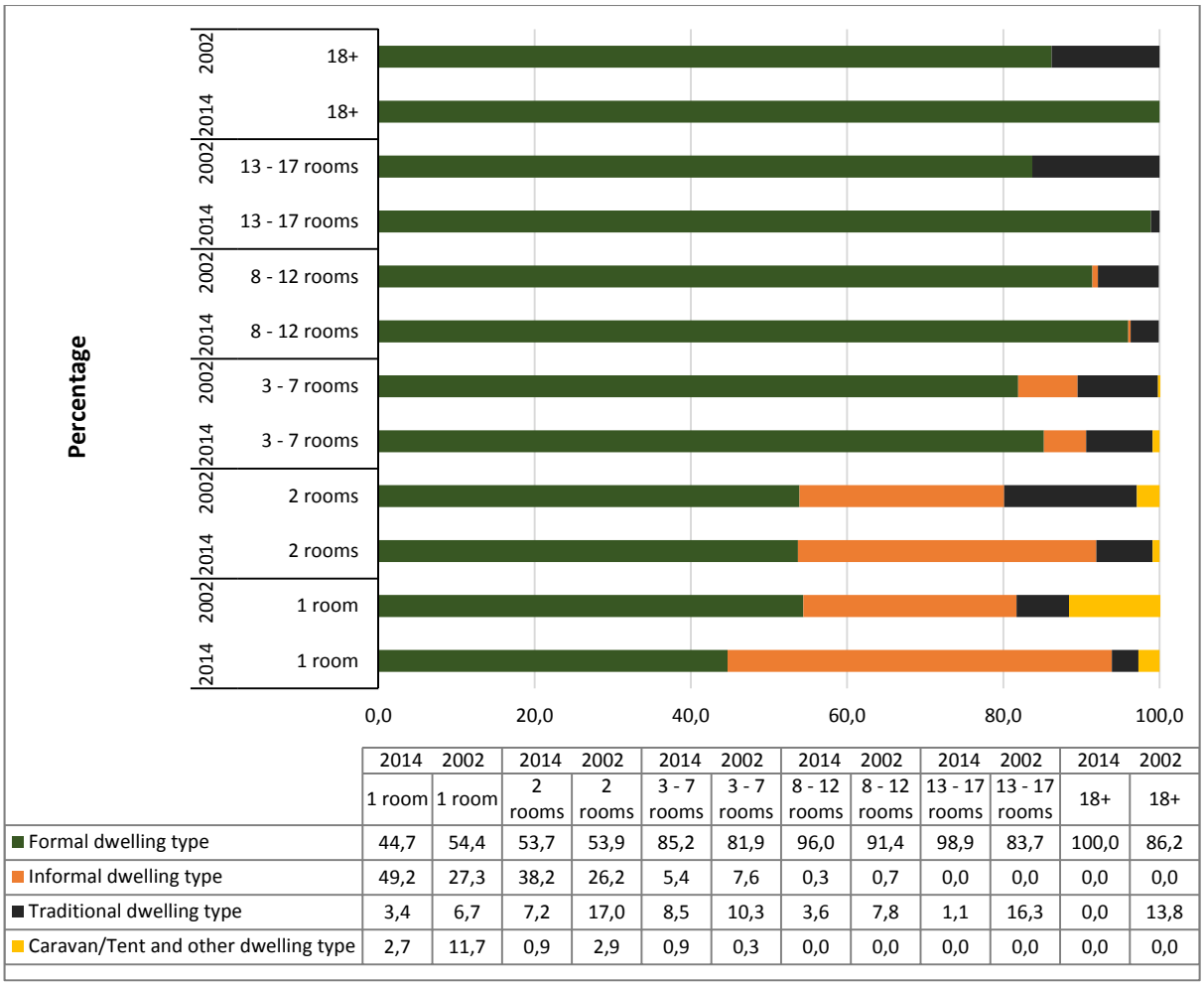
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Formal dwellings	4,0	3,9	3,9	3,9	3,8	3,8	3,9	3,5	3,6	3,5	3,5	3,5	3,5
Informal dwelling: backyard	4,3	4,7	4,7	4,1	3,8	3,9	4,0	2,6	2,6	2,4	2,4	2,3	2,3
Informal dwelling: settlement	4,2	4,1	4,4	4,0	3,9	3,6	3,9	2,8	2,8	2,7	2,8	2,8	2,7
Traditional dwellings	4,0	3,7	3,7	3,6	3,6	3,5	3,7	4,4	4,6	4,3	4,2	4,3	4,3
Caravan/tent and other dwellings	3,7	3,9	4,0	4,0	3,3	3,2	4,0	2,5	1,8	1,9	1,4	1,6	2,0
South Africa	**4,0**	**4,0**	**3,9**	**3,9**	**3,8**	**3,7**	**3,9**	**3,4**	**3,5**	**3,5**	**3,4**	**3,4**	**3,4**

Source: GHS 2002-2014

Table 9.2 summarises the average size of households in South Africa by type of dwelling. The average household size decreased from 4 in 2002 to 3,4 in 2014. In 2014, the average household size for individuals living in traditional dwellings was 4,3, the average household size for individuals living in formal dwellings was a little lower at 3,5 and for those living in informal settlements the average household size was 2,7. The lowest average household size was found for caravan/tent and other dwelling types with an average of 2,0.

The average size for households living in informal dwellings and in caravans and tents dropped somewhat sharply between 2008 and 2009. While this could be as a result of a shift in the position of the question in the questionnaire in 2009, the stability shown from 2009 onwards may point to a change in the family structure of households who live in these dwellings. In the case of caravan/tent and other dwellings the sub sample is too small to adequately reflect changes in average household size.

Figure 9.5: Percentage distribution of number of rooms by type of dwelling, 2002 and 2014



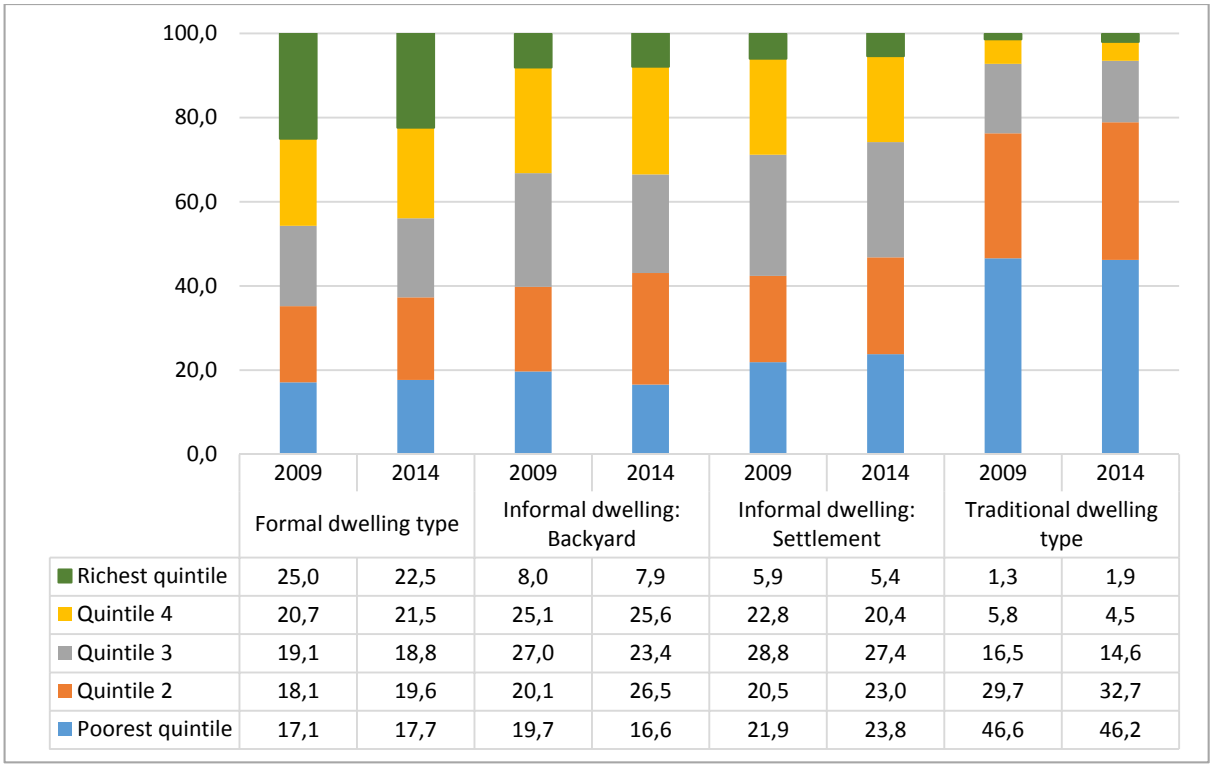
	2014	2002	2014	2002	2014	2002	2014	2002	2014	2002	2014	2002
	1 room	1 room	2 rooms	2 rooms	3 - 7 rooms	3 - 7 rooms	8 - 12 rooms	8 - 12 rooms	13 - 17 rooms	13 - 17 rooms	18+	18+
Formal dwelling type	44,7	54,4	53,7	53,9	85,2	81,9	96,0	91,4	98,9	83,7	100,0	86,2
Informal dwelling type	49,2	27,3	38,2	26,2	5,4	7,6	0,3	0,7	0,0	0,0	0,0	0,0
Traditional dwelling type	3,4	6,7	7,2	17,0	8,5	10,3	3,6	7,8	1,1	16,3	0,0	13,8
Caravan/Tent and other dwelling type	2,7	11,7	0,9	2,9	0,9	0,3	0,0	0,0	0,0	0,0	0,0	0,0

Source: GHS 2002 and 2014

Figure 9.5 shows that more households occupied single-room, formal type of dwellings in 2002 when compared to 2014. Over time there has been a gradual shift for formal dwellings towards more rooms per dwelling, whereas one and two-room houses were increasingly found in informal housing. Only households who live in formal and traditional dwellings reported that they occupy dwelling units that have eighteen rooms or more in 2014.

9.4 Household type, socio-economic characteristics of households and expenditure on housing

Figure 9.6: Percentage distribution of household per capita income quintile by type of dwelling, 2009 and 2014



	2009	2014	2009	2014	2009	2014	2009	2014
	Formal dwelling type		Informal dwelling: Backyard		Informal dwelling: Settlement		Traditional dwelling type	
Richest quintile	25,0	22,5	8,0	7,9	5,9	5,4	1,3	1,9
Quintile 4	20,7	21,5	25,1	25,6	22,8	20,4	5,8	4,5
Quintile 3	19,1	18,8	27,0	23,4	28,8	27,4	16,5	14,6
Quintile 2	18,1	19,6	20,1	26,5	20,5	23,0	29,7	32,7
Poorest quintile	17,1	17,7	19,7	16,6	21,9	23,8	46,6	46,2

Source: GHS 2009 and 2014

According to Figure 9.6, households living in formal dwellings were more likely to be from the richest quintile, with a quarter from this quintile being recorded in 2009 and 22,5% in 2014. In 2014 households living in traditional dwellings were more likely to be from the poorest quintile and quintile 2, with percentages of 46,2% and 32,7%, respectively.

Informal dwellings were most likely to be occupied by quintile 3 households in 2009 and 2014, with percentages of 27% in 2009, declining to 23,4% in 2014 for households living in backyard informal dwellings and 28,8% (2009) declining to 27,4% (2014) for households occupying informal dwellings in a settlement.

Table 9.3: Percentage of the household head's age and population group by type of dwelling, 2002 and 2014

		2002	2014	2002	2014	2002	2014	2002	2014
		Formal dwelling type		Informal dwelling: Backyard		Informal dwelling: Settlement		Traditional dwelling type	
15 - 17	Black African	0,4	0,2	0,3	*	0,2	0,3	2,0	0,6
	Coloured	0,0	0,0	*	*	*	*	*	*
	White	*	0,0	*	*	*	*	*	*
18 - 34	Black African	20,8	19,7	48,6	43,5	37,0	39,0	17,9	20,4
	Coloured	2,5	1,2	2,8	2,0	0,7	0,7	0,0	0,0
	Indian/Asian	0,8	0,5	*	*	*	*	0,0	*
	White	3,8	2,0	*	0,1	*	*	*	*
35 - 44	Black African	16,5	19,4	21,5	28,6	27,7	32,1	19,5	18,9
	Coloured	2,8	2,0	1,7	2,5	1,2	0,4	0,1	0,0
	Indian/Asian	1,0	0,7	*	0,0	0,0	*	*	*
	White	4,8	2,1	*	0,1	*	*	*	0,3
45 - 54	Black African	13,5	15,9	12,9	14,3	18,2	15,4	19,7	18,3
	Coloured	2,2	2,3	1,1	1,1	1,1	0,6	0,1	*
	Indian/Asian	0,8	0,7	*	*	*	0,2	*	0,1
	White	4,2	2,9	*	*	0,0	*	0,0	0,0
55 - 64	Black African	8,3	11,1	6,8	5,1	8,3	7,1	19,0	18,6
	Coloured	1,3	1,6	1,4	0,4	0,3	0,4	0,1	0,0
	Indian/Asian	0,6	0,5	0,1	*	0,1	0,0	0,0	0,0
	White	4,1	2,9	*	*	*	*	*	0,1
65+	Black African	7,3	9,7	2,8	1,9	4,4	3,2	21,5	22,6
	Coloured	1,0	1,1	0,2	0,2	0,5	0,3	0,0	*
	Indian/Asian	0,3	0,4	*	*	0,0	0,1	*	*
	White	3,0	3,1	*	0,0	0,0	*	*	*
Total		**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

Source: GHS 2002 and 2014

Generally, the observed household head age trends indicate that those aged 45 years and older were less likely to occupy informal dwellings and more likely to occupy formal dwellings in 2014 than they were in 2002. During this period, the percentage of household heads aged 45 and older and living in formal dwellings increased from 46,5% to 52,2%, while those finding themselves in informal dwellings decreased from 25,2% to 23,2% for backyard informal dwellings and 33% to 27,5% for informal dwellings in settlements. Thus, the data show that the situation in terms of formalisation of dwellings has improved for households headed by persons 45 years and older, but it deteriorated for those classified as youth between 2002 and 2014.

Table 9.4: Dwelling type and tenure status by value of the dwelling (per cent), 2014

Indicator	Estimated value of the dwelling								
	Less than R50 000	Between R50 001-R250 000	Between R250 001-R500 000	Between R500 001-R1 000 000	Between R1 000 001-R1 500 000	Between R1 500 001-R2 000 000	Between R2 000 001-R3 000 000	More than R3 000 000	Total
RDP or state subsidised dwelling									
Yes	37,6	53,3	6,6	1,0	0,2	0,3	1,0	0,0	100,0
No	38,5	24,4	14,2	11,6	4,0	2,5	2,2	2,5	100,0
Dwelling type									
Formal	25,3	33,9	16,3	12,5	4,3	2,8	2,3	2,7	100,0
Traditional	72,9	24,4	1,6	0,2	0,1	0,0	0,8	0,0	100,0
Informal	94,8	4,0	0,3	0,1	0,1	0,1	0,7	0,0	100,0
Other	60,9	22,4	12,4	1,4	0,0	0,0	3,0	0,0	100,0
Tenure status									
Rented from private individual	55,4	15,2	10,2	10,6	2,9	2,4	2,1	1,2	100,0
Rented from other, incl. SHI	15,8	29,6	22,4	17,6	6,7	3,4	2,0	2,5	100,0
Owned but not yet paid of fully to bank/financial institution	0,9	4,4	20,1	37,3	13,3	9,3	6,7	8,0	100,0
Owned but not yet paid fully to private lender	8,2	12,7	22,7	24,8	8,5	7,9	1,5	13,6	100,0
Owned and fully paid off	34,9	36,8	13,8	7,3	2,7	1,5	1,5	1,6	100,0
Occupied rent-free	59,7	27,9	7,4	2,6	0,6	0,3	1,0	0,5	100,0
Other	50,2	32,4	3,0	6,1	0,8	0,0	6,8	0,7	100,0

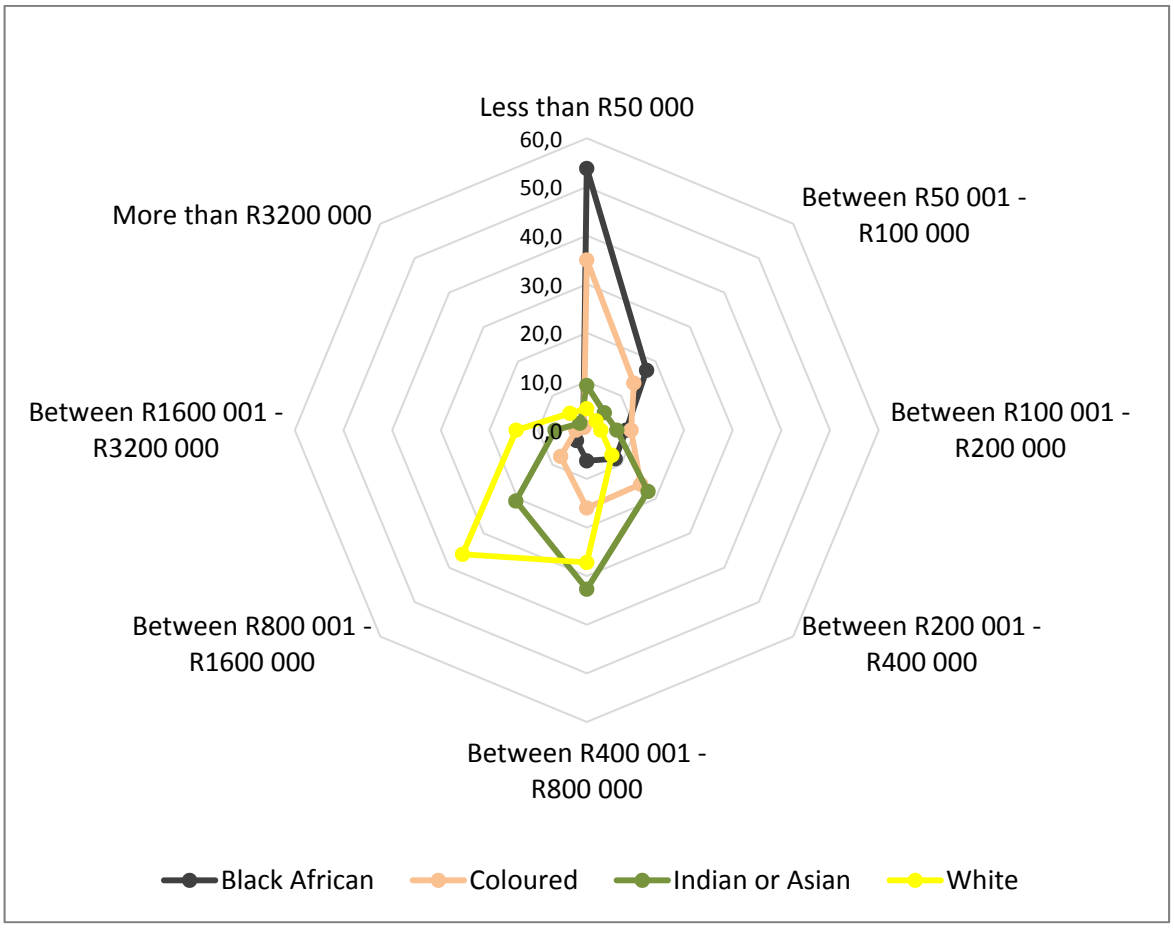
* Do not know or unspecified values were excluded from percentages

Source: GHS 2014

More than half (53,3%) of RDP/state subsidised housing were valued at between R50 000 and R250 000, whereas a further 37,6% are worth less than R50 000. According to Table 9.4 Informal (94,8%) and traditional dwellings (72,9%) were overwhelmingly valued at less than R50 000, while three quarters (75,5%) of formal dwellings were priced below R500 000.

The table also indicates that private rental stock is significantly skewed (55,4%) towards properties values at less than R50 000, whereas rentals from other entities such as municipalities and social housing entities tend to cover the price range R50 000 to R500 000 (52%).

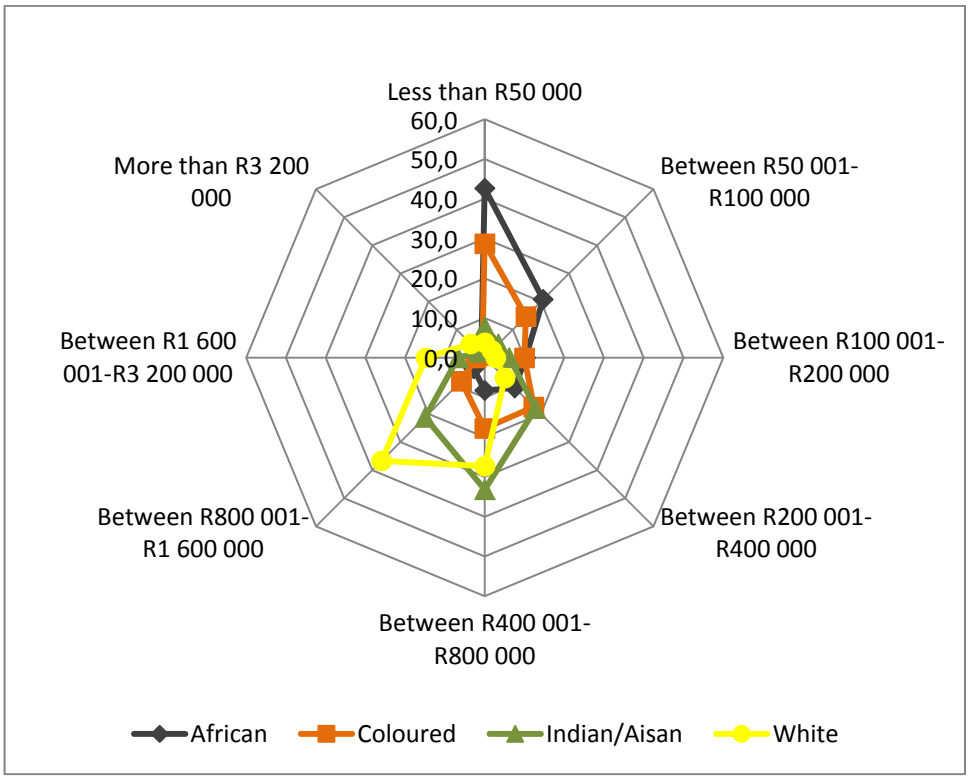
Figure 9.7: Percentage distribution of the household head's population group by the value of property of their households, Census 2011



Source: Census 2011

Figure 9.7 presents information on the distribution of the property value by population group of the household head. The figure shows that 53,8% of black Africans and a third of the coloured population (35,0%) lived in dwellings with a property value of less than R50 000, while most whites (82,7%) and Asians/Indians (61,8%) lived in properties valued at R400 000 or more.

Figure 9.8: Percentage distribution of the household head's population group occupying formal dwellings by the value of household property, Census 2011

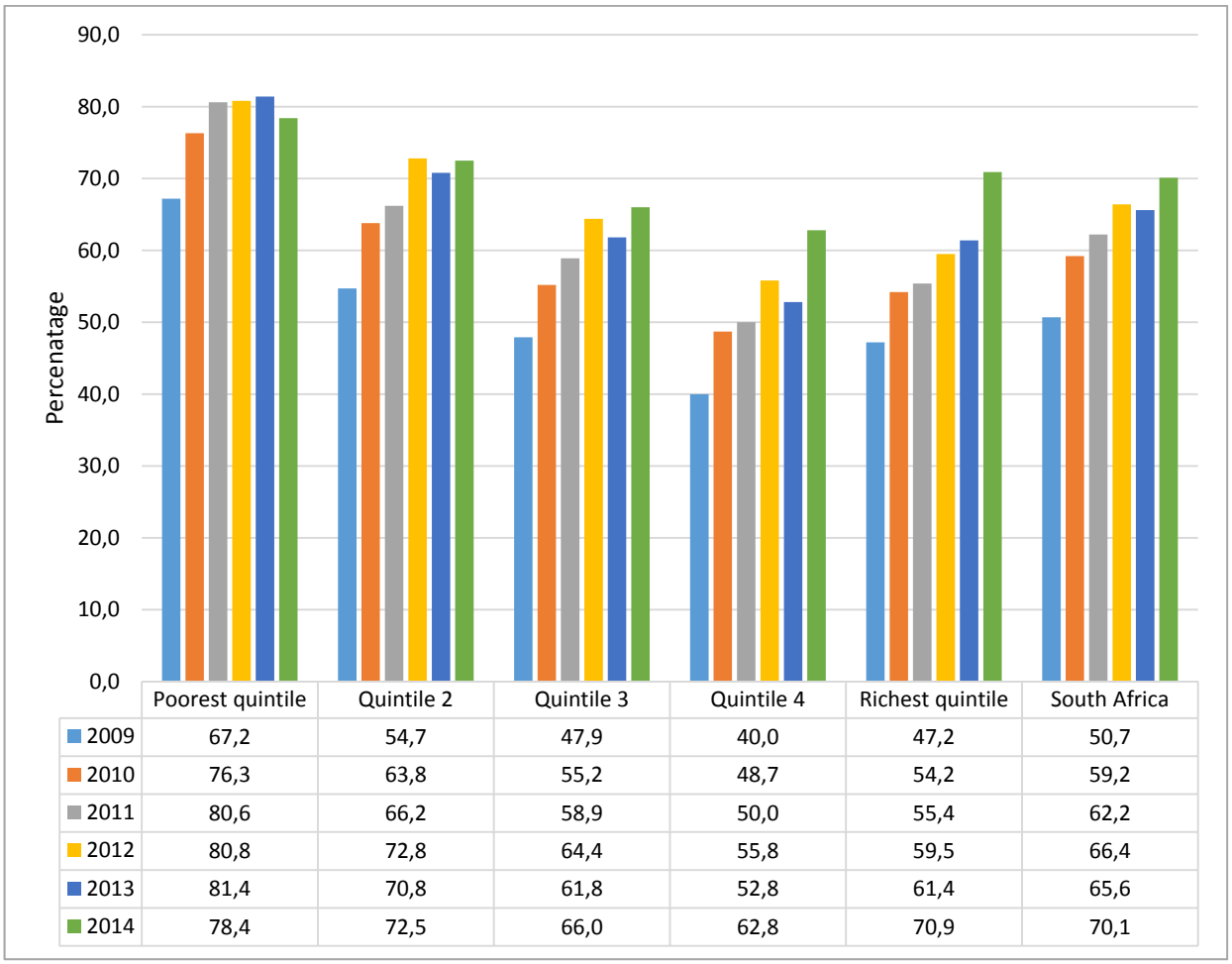


Source: Census 2011

In contrast to Figure 9.7 which reflects property values for all dwelling types, Figure 9.8 only presents information on the distribution of the property values of formal dwellings by the population group of the household head. The figure shows that in comparison with Figure 9.7, the distribution of property values of formal dwellings per population group follows the same pattern, with most black Africans and coloureds in the lower price ranges and whites and Indians/Asians in the higher price ranges.

One of the differences between the two graphs is that the percentage of black Africans and coloureds who live in properties valued at R50 000 or less were lower for formal dwellings than for all dwelling types. This is the result of the exclusion of informal and traditional dwellings from Figure 9.9. Slightly more than four in ten (42,6%) black Africans and 28,7% of coloured households (28,7%) lived in formal dwellings with a property value of less than R50 000, while most white (83,8%) and Asians/Indian (63,1%) households lived in properties valued at R400 000 or more.

Figure 9.9: Percentage distribution of households experiencing challenges with housing affordability, GHS 2009–2014

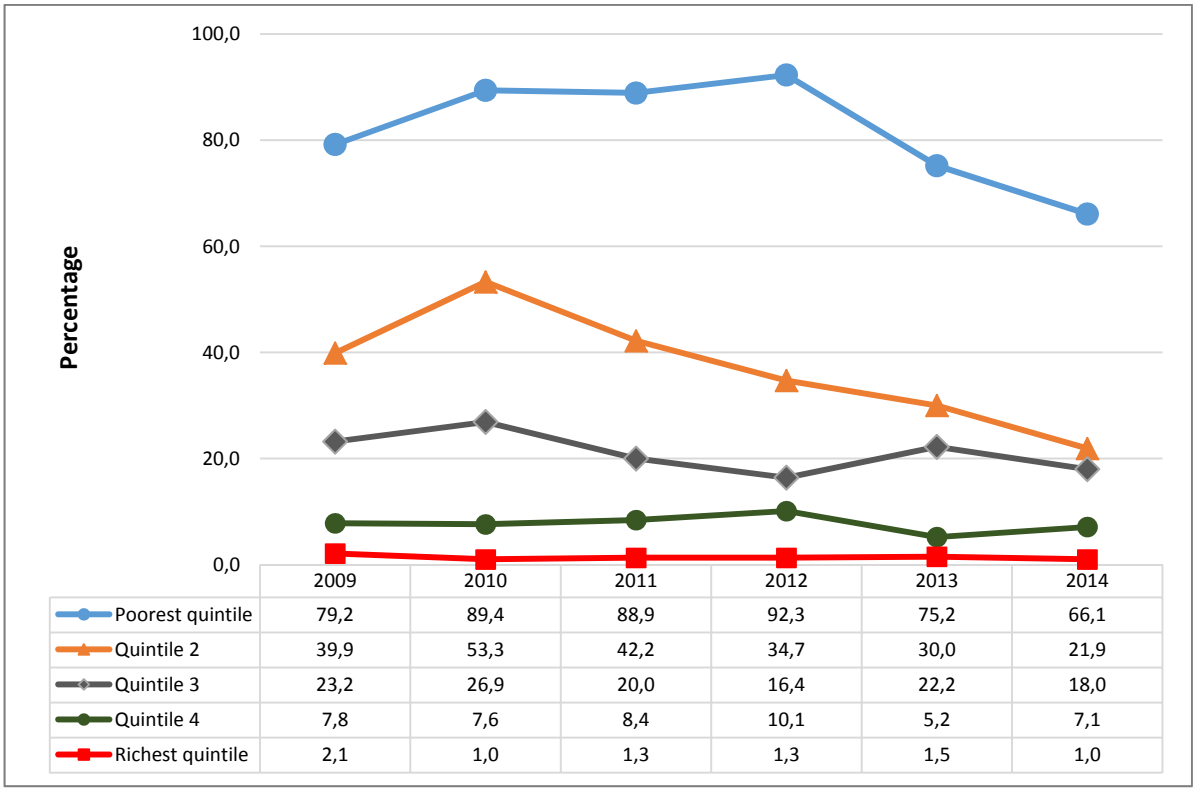


	Poorest quintile	Quintile 2	Quintile 3	Quintile 4	Richest quintile	South Africa
2009	67,2	54,7	47,9	40,0	47,2	50,7
2010	76,3	63,8	55,2	48,7	54,2	59,2
2011	80,6	66,2	58,9	50,0	55,4	62,2
2012	80,8	72,8	64,4	55,8	59,5	66,4
2013	81,4	70,8	61,8	52,8	61,4	65,6
2014	78,4	72,5	66,0	62,8	70,9	70,1

Source: GHS 2009-2014

Since 2009, more and more South Africans have been experiencing problems with the affordability of housing. The percentage of South Africans who said that they have problems increased from 50,7% in 2009 to 70,1% in 2014. As expected poorer households were significantly more likely to have problems than richer households: in 2014, 78,4% of households from the poorest quintile experienced problems compared to 70,9% in the richest quintile.

Figure 9.10: Percentage distribution of households whose rent/mortgage costs were greater than fifty per cent of household income, 2009–2014



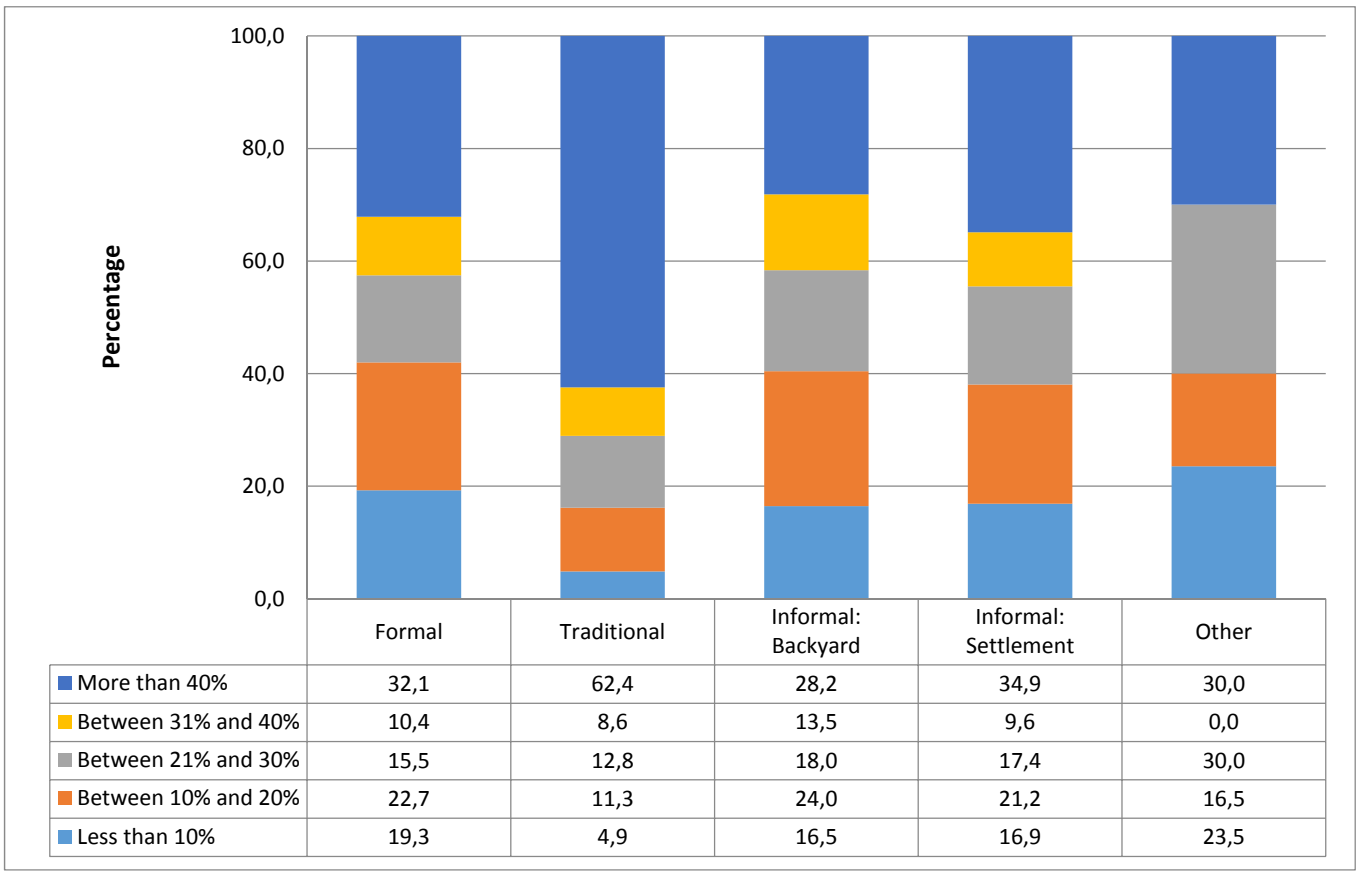
	2009	2010	2011	2012	2013	2014
Poorest quintile	79,2	89,4	88,9	92,3	75,2	66,1
Quintile 2	39,9	53,3	42,2	34,7	30,0	21,9
Quintile 3	23,2	26,9	20,0	16,4	22,2	18,0
Quintile 4	7,8	7,6	8,4	10,1	5,2	7,1
Richest quintile	2,1	1,0	1,3	1,3	1,5	1,0

Source: GHS 2009-2014

Figure 9.10 shows that between 2009 and 2014, most income quintiles experienced a decline in the percentage of households who spent more than 50% of their household income on rent/mortgage costs. In both 2009 and 2014, households from the poorest quintile were most likely to use more than 50% of their income on rent/mortgage payments (with 79,2% in 2009 and 66,1% in 2014), followed by quintile 2 (with 39,9% in 2009 and 21,9% in 2014).

Even though the poorest quintile also showed a general decline, the percentage of households with these cost profiles rose to a high of 92,3% in 2012. Households from the richest quintile were least likely to fall into this category (with two per cent in 2009).

Figure 9.11: Percentage of households by the monthly household income per capita spent on public transport to work, 2013



	Formal	Traditional	Informal: Backyard	Informal: Settlement	Other
More than 40%	32,1	62,4	28,2	34,9	30,0
Between 31% and 40%	10,4	8,6	13,5	9,6	0,0
Between 21% and 30%	15,5	12,8	18,0	17,4	30,0
Between 10% and 20%	22,7	11,3	24,0	21,2	16,5
Less than 10%	19,3	4,9	16,5	16,9	23,5

Source: NHTS 2013

Figure 9.11 illustrates that six out of ten households living in traditional dwellings spent more than 40% of their monthly household income on public transport to work. A relatively lower percentage of households in formal (32%); informal dwellings in backyards (28%) and informal settlements (35%) however spent as much of their household income on public transport.

For almost two out of ten households in formal dwellings, public transport costs to places of employment accounted for less than ten per cent, and this was the case for roughly seventeen per cent of households in both types of informal dwellings. About five per cent of households in traditional dwellings spent a less than double-digit percentage on public transport to work.

Table 9.5: Dwelling type and tenure status by age of dwelling (Per cent), 2014

	Age of the dwelling*								
	0-5 years	6-10 years	11-20 years	21-30 years	31-40 years	41-50 years	51-70 years	Older than 70 years	Total
RDP or state subsidised dwelling									
Yes	15,4	25,7	38,9	10,6	4,2	2,7	1,8	0,7	100,0
No	10,6	16,5	24,4	19,5	12,2	8,3	6,7	1,7	100,0
Dwelling type									
Formal	9,7	16,8	27,0	18,9	12,0	7,6	6,2	1,7	100,0
Traditional	6,9	12,3	24,7	20,9	13,1	13,1	7,2	1,9	100,0
Informal	25,1	30,7	29,6	10,7	1,9	0,7	1,3	0,1	100,0
Other	17,1	10,3	9,8	4,6	9,9	17,5	28,3	2,5	100,0
Tenure status									
Rented from private individual	25,0	22,1	20,3	12,6	8,0	5,0	5,7	1,5	100,0
Rented from other, incl. SHI	7,7	11,7	17,9	15,6	20,9	15,7	8,4	2,1	100,0
Owned but not yet paid of fully to bank/financial institution	2,3	14,2	25,0	24,9	13,9	8,7	8,8	2,3	100,0
Owned but not yet paid fully to private lender	6,9	21,4	19,9	23,0	15,0	6,5	5,5	1,7	100,0
Owned and fully paid off	8,6	17,4	28,7	19,4	11,7	7,8	5,0	1,5	100,0
Occupied rent-free	16,3	20,5	29,0	12,6	6,6	5,7	8,0	1,3	100,0
Other	38,3	22,0	20,6	8,2	3,8	3,1	3,9	0,0	100,0

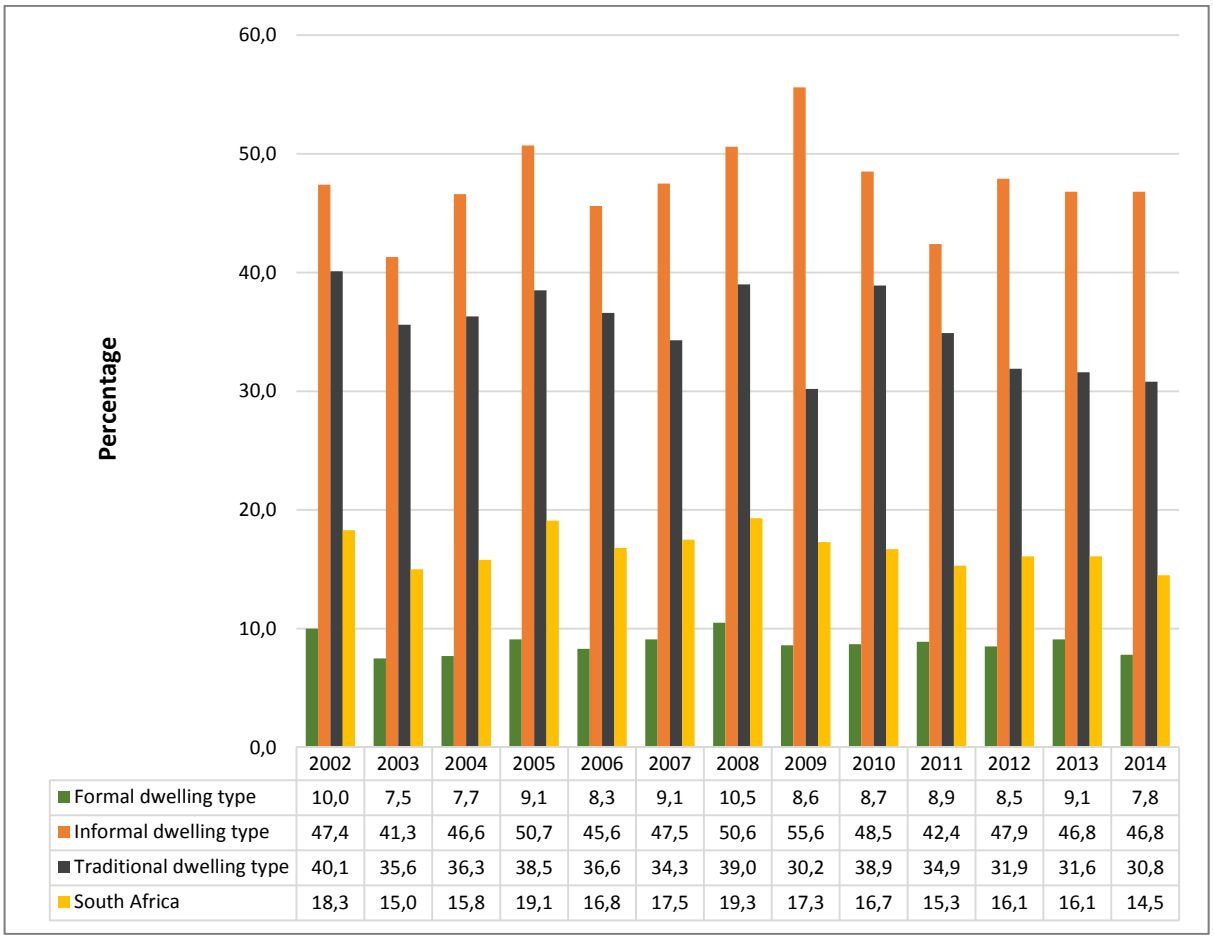
* Do not know or unspecified age is excluded from percentages

Source: GHS 2014

Approximately four out of ten RDP/state subsidised houses fall in the 11-20 year age bracket, whilst 41,1% are 10 years or younger. Slightly more than half (55,8%) of the informal dwellings are aged between 0 and 10 years, while 58,7% of traditional dwellings are aged between 11 and 40 years.

According to Table 9.5 most housing stock, regardless of tenure status, are less than 40 years old. Two thirds (65,5%) of the dwellings that are owned and fully paid off are between 6 and 30 years old. Dwellings less than 5 years old have the highest likelihood to be rented from private individuals. Private rental stock generally tend to be between 0 and 20 years old (67,4% of the cases). Housing rental stock from other entities such as municipalities and social housing institutions generally tend to be spread between the 11-50 years age categories (70,1%).

Figure 9.12: Percentage distribution of households who described their roof and walls as weak or very weak, 2002–2014



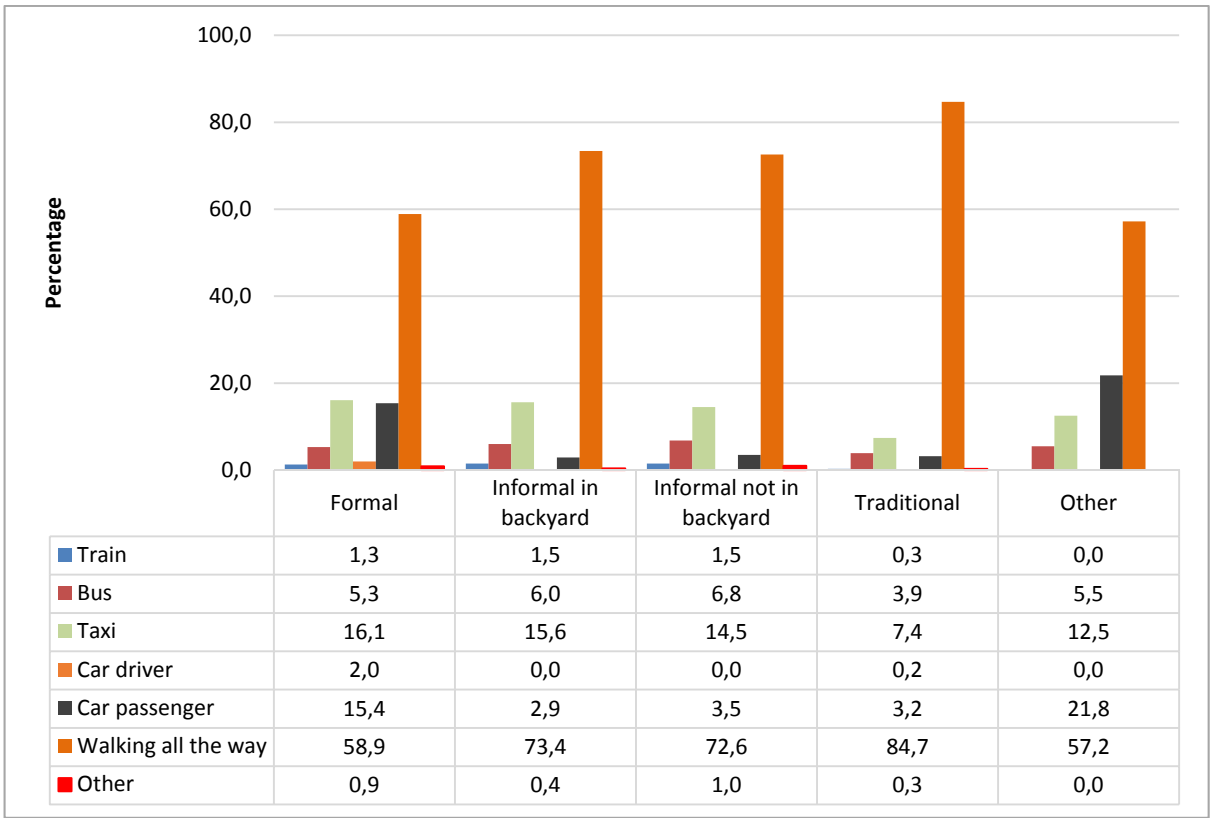
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Formal dwelling type	10,0	7,5	7,7	9,1	8,3	9,1	10,5	8,6	8,7	8,9	8,5	9,1	7,8
Informal dwelling type	47,4	41,3	46,6	50,7	45,6	47,5	50,6	55,6	48,5	42,4	47,9	46,8	46,8
Traditional dwelling type	40,1	35,6	36,3	38,5	36,6	34,3	39,0	30,2	38,9	34,9	31,9	31,6	30,8
South Africa	18,3	15,0	15,8	19,1	16,8	17,5	19,3	17,3	16,7	15,3	16,1	16,1	14,5

Source: GHS 2002-2014

The percentage of South African households who described their roof and walls as being weak or very weak, declined from 18,3% in 2002 to 14,5% in 2014. Between 2002 and 2014, informal dwellings had the highest percentage of households who described their roof and walls as being weak or very weak. In 2014, 46,8% of households living in informal dwellings and 30,8% of households living in traditional dwellings described their roof and walls as being weak or very weak. As expected, households living in formal dwellings were the least likely to have problems with their roofs and walls.

9.5 Travel arrangements and travel times for different dwelling types

Figure 9.13: Percentage distribution of learners in different dwelling types by main mode of travel to school, 2014



	Formal	Informal in backyard	Informal not in backyard	Traditional	Other
Train	1,3	1,5	1,5	0,3	0,0
Bus	5,3	6,0	6,8	3,9	5,5
Taxi	16,1	15,6	14,5	7,4	12,5
Car driver	2,0	0,0	0,0	0,2	0,0
Car passenger	15,4	2,9	3,5	3,2	21,8
Walking all the way	58,9	73,4	72,6	84,7	57,2
Other	0,9	0,4	1,0	0,3	0,0

Source: NHTS 2013

Figure 9.13 presents the percentages of learners in different dwelling types by the main mode of travel that they used to get to school in 2014. It shows that the majority of learners were walking to school in all dwelling types in South Africa. The highest percentage of learners who reported to be walking to school were observed in traditional dwelling types (84,7%) and the lowest lived in 'Other' and formal dwelling types (57,2% and 58,9%, respectively). The majority of learners who reported to travel by car as a passenger could also be found in 'Other' (21,8%) and formal dwelling types (15,4%). Leaners in traditional dwelling types were less likely to travel to school using taxis (7,4%) than all other dwelling types (formal – 16,1%, informal: backyard – 15,6% informal: settlement – 14,5% and other dwelling types –12,5%).

Table 9.6: Learners average travel time in minutes by dwelling type and main mode of travel, 2013

Dwelling type	Main mode							Total
	Train	Bus	Taxi	Car driver	Car passenger	Walking all the way	Other	
Formal	74	62	48	42	31	28	36	46
Informal in backyard	76	60	45	45	41	26	40	48
Informal not in backyard	73	60	51	44	40	30	41	48
Traditional	77	64	55	63	51	39	52	57
Other	90	63	59	30	40	26	53	52

'Other' includes caravan
Source: NHTS 2013

According to Table 9.6 learners who reside in formal dwellings travel an average of 46 minutes to school, whereas those who are living in informal dwelling types travel an average of 48 minutes to school. Learners in traditional dwelling types (57 minutes) spent the longest amount of time to get to school. Travel by train was the mode of transport requiring the longest travel time in all the dwelling types, while the shortest time travelled (73 minutes on average) when using this mode of transport was observed in informal settlements. Learners in all dwelling types were travelling an average of an hour to get to school when using a bus.

Table 9.7: Workers average travel time in minutes by dwelling type and main mode of travel, 2013

Dwelling type	Main mode							Total
	Train	Bus	Taxi	Car driver	Car passenger	Walking all the way	Other	
Formal	90	81	55	43	44	32	47	56
Informal in backyard	98	75	61	50	54	43	41	60
Informal in settlements	91	80	60	47	54	39	57	61
Traditional	104	75	62	49	58	44	54	64
Other	107	58	81	39	29	30	20	52

Source: NHTS 2013

Workers who reside in formal dwellings (Table 9.7) travel an average of 56 minutes to work, whereas those who are living in informal dwelling types travel about an hour. Workers in traditional dwelling types spent the longest amount of time (64 minutes) to get to their place of work. Travel by train was the mode of transport requiring the longest travel time (an average of 98 minutes) in all dwelling types, and the shortest time travelled (91 minutes) when using this particular mode of transport was observed in informal settlements. Workers in informal settlements were travelling an average of an hour and a half to their place of work when using trains, while those who were using a bus travelled an average of 80 minutes to their place of work.

9.6 Summary and conclusion

The formalisation of dwelling arrangements and tenure status is one of the targets of both the NDP 2030 and the BNG policy document. The data presented in this section indicate that the percentage of households occupying formal dwellings increased across all provinces, with the most significant increases between 2002 and 2014 observed in Limpopo. Nationally, the percentage of households living in formal dwellings increased from 76% to 80% during the reference period, whilst in Limpopo, the increase was from 82% to 94%. These changes do not necessarily mean a change or improvement for all households from informal/traditional to formal. An analysis of recall data about the kind of dwelling households lived in five years previously shows that as many as 18,1% of South African households were living in informal dwellings in 2013, but five years previously they were living in formal dwellings. This could represent households whose socio-economic conditions deteriorated during that time, but also migrants or newly established households who were living elsewhere or with parents in formal dwellings five years previously. A further 3% of households indicated that they had been living in informal dwellings five years previously, but were currently living in formal dwellings.

When investigating this phenomenon further it was found that there was a decline in formal homeownership during the reference period for the age group 18–34 years. This may relate to the introduction of the Credit Control Act, which made it more difficult for individuals to obtain a home loan without a deposit. The percentage of households across all income groups who feel that they have problems with the affordability of housing increased from 56,7% to 75,1% during the reference period. Putting the value of the dwellings occupied by South African households under consideration, stark differences between population groups begin to emerge. More than half of the black African population lived in dwellings that were valued at less than R50 000, whereas most Indians/Asians and whites lived in properties valued at R400 000 or more. RDP/state subsidised housing were generally (90,9%) valued at less than R250 000. Nearly four (37,6%) in ten were valued at less R50 000. Private rental stock is significantly skewed (55,4%) towards properties with values less than R50 000, whereas rentals from other entities such as municipalities and social housing entities tend to cover the price range R50 000 to R500 000 (52%).

Traditional dwellings have on average 4,3 people per dwelling, whilst formal dwellings host 3,5 household members on average. Between 2002 and 2014 there has been shift in more rooms per dwelling for formal housing whereas there has been a shift in informal housing from multiple to 1 to 2 rooms.

Informal dwellings were generally occupied by an even spread of households between quintiles 1 and 4, whilst traditional dwellings were most likely to be occupied by quintile 1 and 2 households. As can be expected, quintile 5 (wealthiest quintile) households were most likely to live in formal dwellings, although as many as 18% of quintile 1 households lived in formal dwellings in 2014. More than 6 in 10 households in the poorest quintile spent more than 50% of their income on their rent/mortgage costs.

10. Tenure status

10.1 Introduction

Tenure security is an important facet of the adequate housing concept as well as the ICESCR. The vulnerability of households, especially poor households, increases significantly if they do not have assurances about their continued access to housing. Since 1994, several laws have been introduced to safeguard and improve tenure status. These include, amongst others, the Extension of Security of Tenure Act (Act No. 62 of 1997) and the Rental Housing Act (Act No. 50 of 1999).

10.2 Provincial homeownership rates

Table 10.1: Number of households and the homeownership rate by province, Census 2001 and Census 2011

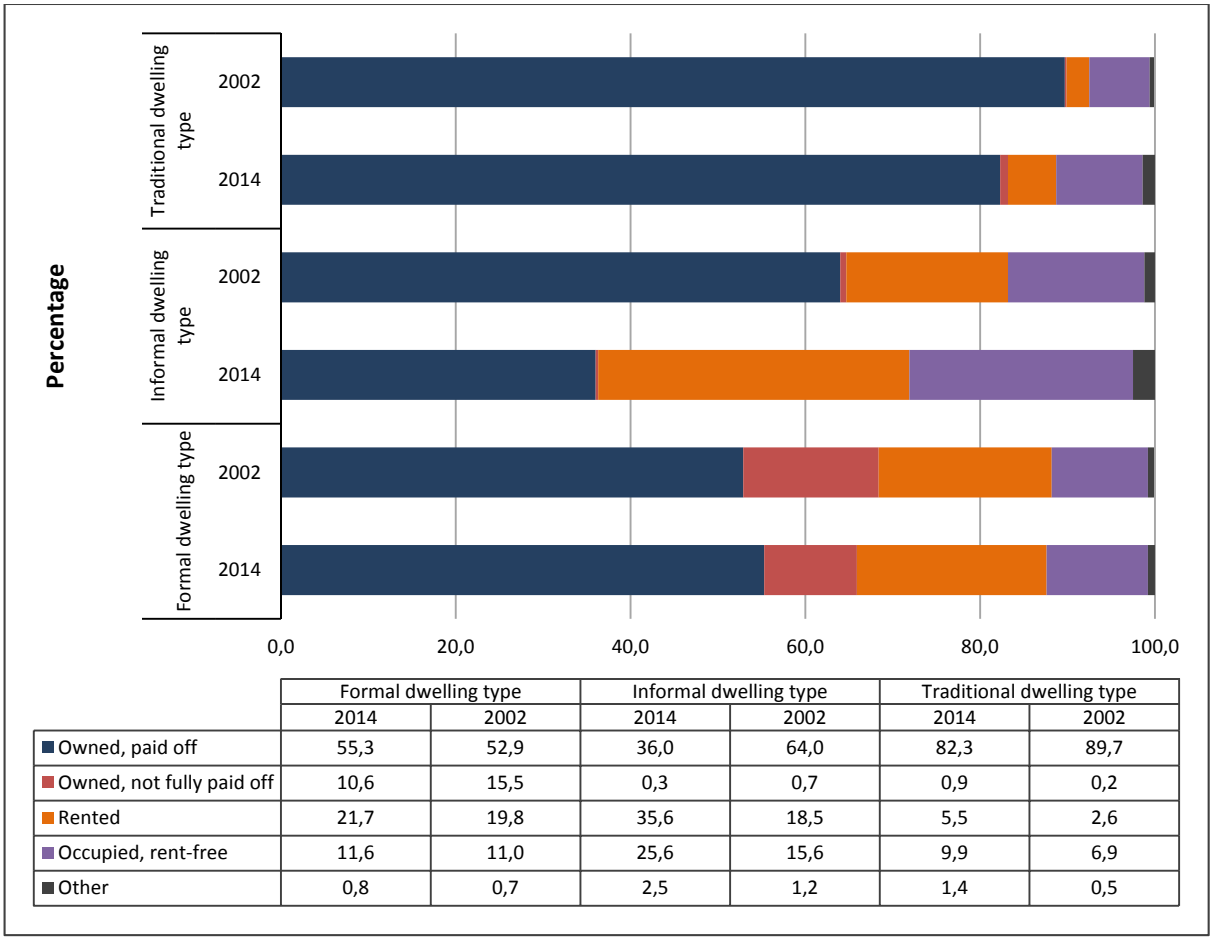
	2001				2011			
	Owner occupied	Renter occupied	Total	Home-ownership rate	Owner occupied	Renter occupied	Total	Home-ownership rate
Eastern Cape	846 487	635 153	1 481 640	57,1%	1 006 143	681 242	1 687 385	59,6%
Free State	415 098	318 204	733 302	56,6%	499 520	323 796	823 316	60,7%
Gauteng	1 448 309	1 342 962	2 791 270	51,9%	1 731 127	2 177 895	3 909 022	44,3%
KwaZulu-Natal	1 201 100	916 174	2 117 274	56,7%	1 398 660	1 140 769	2 539 429	55,1%
Limpopo	661 827	455 990	1 117 818	59,2%	817 757	600 344	1 418 102	57,7%
Mpumalanga	474 629	310 795	785 424	60,4%	639 748	435 740	1 075 488	59,5%
North West	441 892	318 696	760 588	58,1%	556 520	505 495	1 062 015	52,4%
Northern Cape	148 919	96 167	245 086	60,8%	166 084	135 322	301 405	55,1%
Western Cape	672 614	500 690	1 173 304	57,3%	856 781	777 219	1 634 000	52,4%
South Africa	**6 310 873**	**4 894 832**	**11 205 705**	**56,3%**	**7 672 339**	**6 777 822**	**14 450 161**	**53,1%**

Source: Census 2001 and Census 2011

According to census data, homeownership rates have decreased between 2001 and 2011. It is important to note that the census only measured homeownership for the dwelling occupied at the point of enumeration on census night. Migrants who maintain dual residences did not report on their tenure status at their place of origin, unless they were at that location at the time of the census.

In 2001, the homeownership rate for the entire country was 56,3% compared to 53,1% in 2011. Even though there was an overall decline in ownership rates, this was not true for all provinces. For example, ownership rates increased in Eastern Cape and Free State. Residents of Gauteng were the least likely to own their houses with household ownership rates of 44,3% in 2011, while Free State had the highest rate at 60,7% in 2011.

Figure 10.1: Percentage distribution of tenure status by type of dwelling, 2002 and 2014



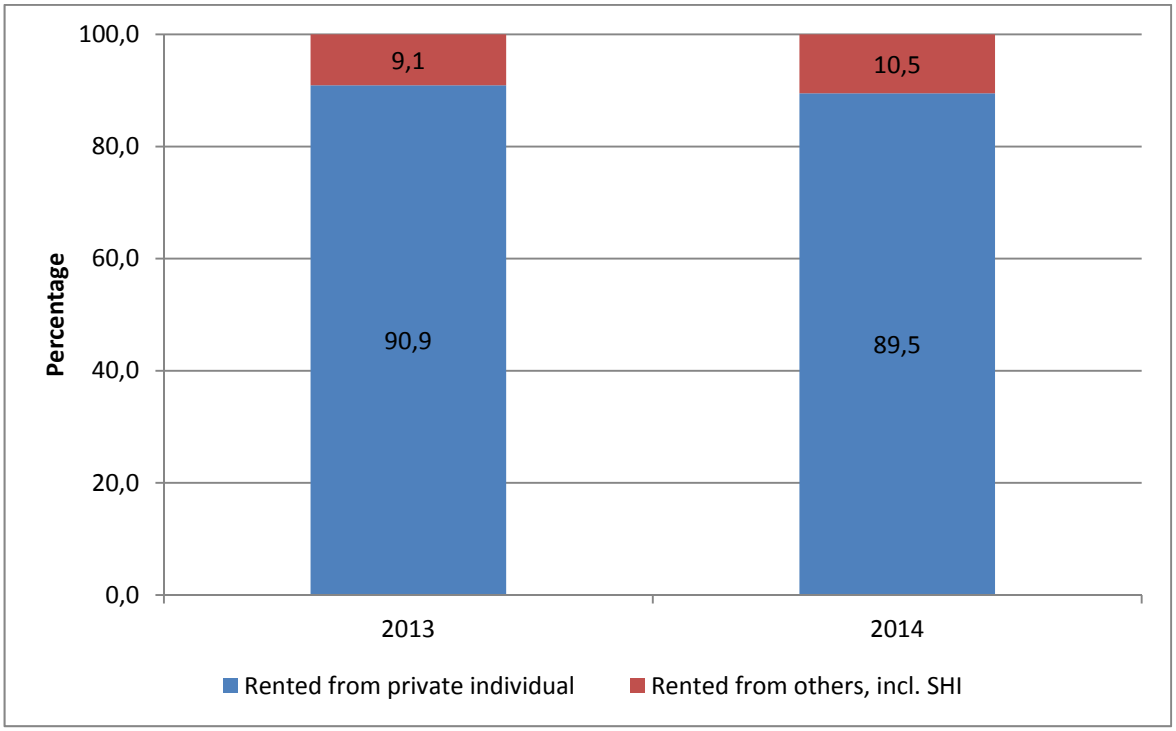
	Formal dwelling type		Informal dwelling type		Traditional dwelling type	
	2014	2002	2014	2002	2014	2002
Owned, paid off	55,3	52,9	36,0	64,0	82,3	89,7
Owned, not fully paid off	10,6	15,5	0,3	0,7	0,9	0,2
Rented	21,7	19,8	35,6	18,5	5,5	2,6
Occupied, rent-free	11,6	11,0	25,6	15,6	9,9	6,9
Other	0,8	0,7	2,5	1,2	1,4	0,5

Source: GHS 2002 and 2014

Even though GHS data has the same gap as census data in relation to dual residence, similar trends have been observed in the two data sources. Figure 10.1 shows an increase between 2002 and 2014 in the percentage of households living in formal dwellings that were owned and paid off, but a decrease in relation to informal and traditional dwellings. The percentage of households who lived in formal dwellings that were owned, but not fully paid off declined between 2002 and 2014 from 15,5% to 10,6%.

House rentals in general increased between 2002 and 2014. Renting of formal dwellings increased from 19,8% in 2002 to 21,7% in 2014, whilst renting in the informal sector nearly doubled from 18,5% to 35,6% during the same period. Although at a much lower scale, renting of traditional dwellings also doubled over the reference period from 2,6% to 5,5%.

Figure 10.2: Percentage distribution of rentals from private individuals versus other kinds of entities, 2013 and 2014

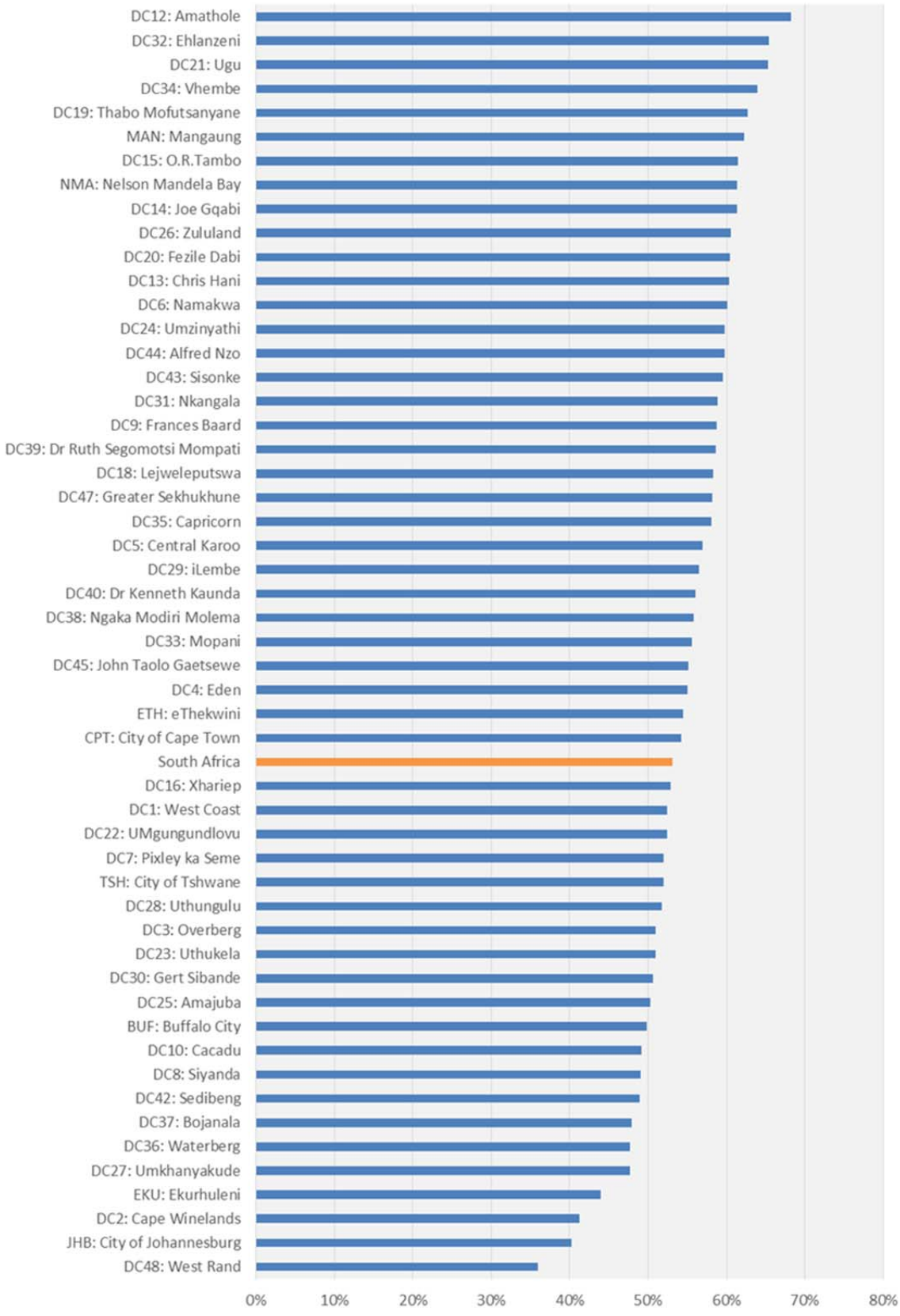


Source: GHS 2013 and 2014

In 2013, a question was included in the questionnaire that separates rentals from private individuals and rentals from other entities, such as for example the Social Housing Institutions (SHI). The data suggest that in 2014 approximately 10,5% of housing rentals were accessed from entities other than private individuals, with a slight increase between 2013 and 2014 in that segment (see Figure 10.2). Rentals from entities other than private individuals were negligible.

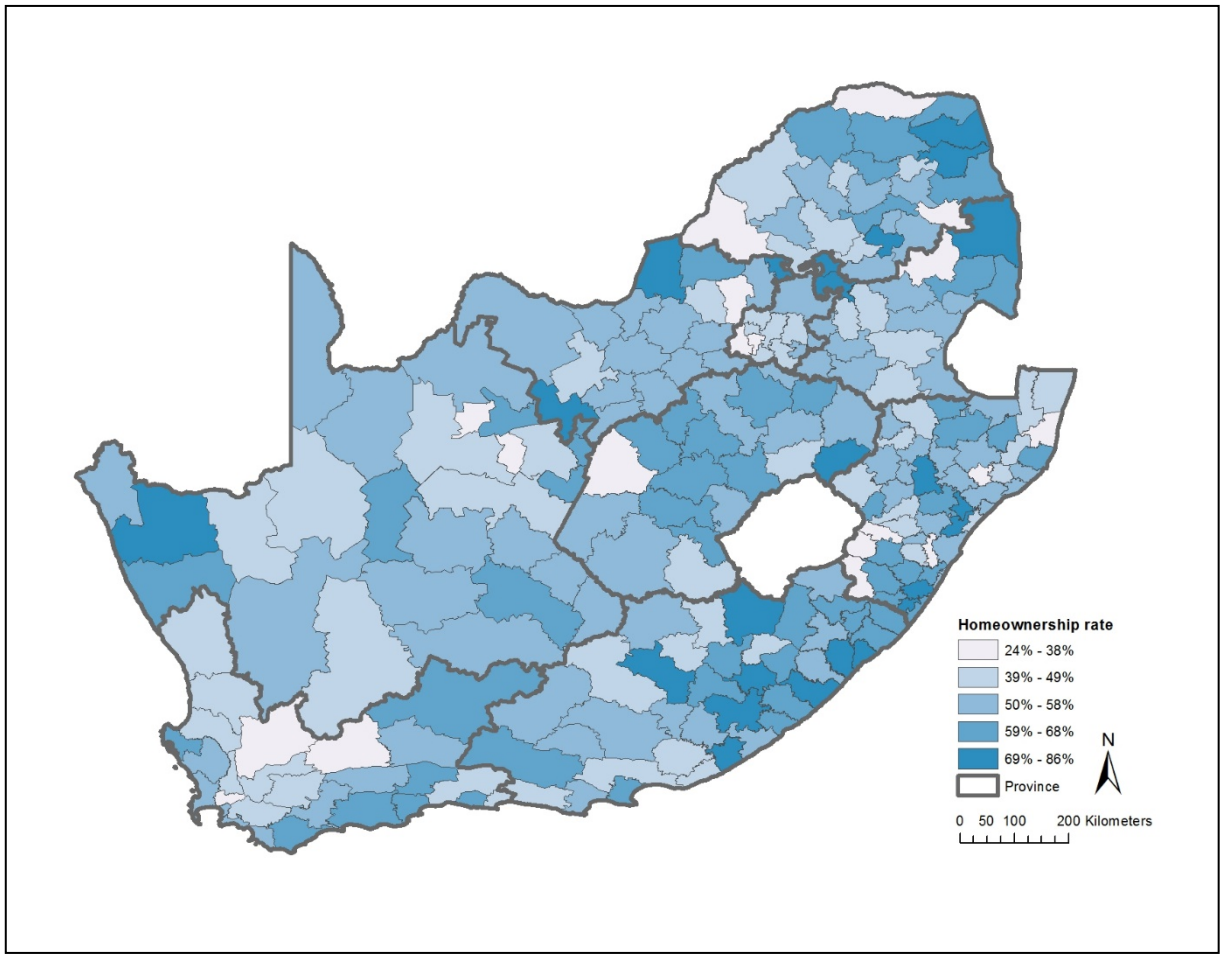
According to Census 2011 data (Figure 10.3) home ownership was highest in municipalities characterised by large tracts of land regulated by traditional land tenure systems in Eastern Cape, Limpopo, KwaZulu-Natal and Free State. Even though the occupants of these dwellings consider themselves to be the owners of these dwellings and it is true that the structure often belongs to them, the land on which it is constructed remains the property of the traditional authority. Under certain circumstances it can be alienated by the traditional authority and tenure is therefore not 100% secure or protected. Informal dwelling ownership is even more insecure. Even though their owners may consider them owned if the material with which it was constructed belongs to them. However, the land on which these dwellings have been constructed usually does not belong the inhabitants of the informal dwelling and this part of ownership can be very insecure. This is especially true if it does not form part of a site and service scheme and was constructed illegally on land belonging to another individual or entity.

Figure 10.3: Homeownership rates per district municipality, Census 2011



Source: Census 2011

Map 10.1: Homeownership rates by local municipality, Census 2011



Map 10.1 confirms the findings depicted in Figure 10.3. The highest home ownership rates are found in municipalities that are characterised by traditional tenure systems as evidenced from the distribution of these areas across Eastern Cape, KwaZulu-Natal and Limpopo.

Table 10.2: Homeownership rates per municipality (top 10 and bottom 10)

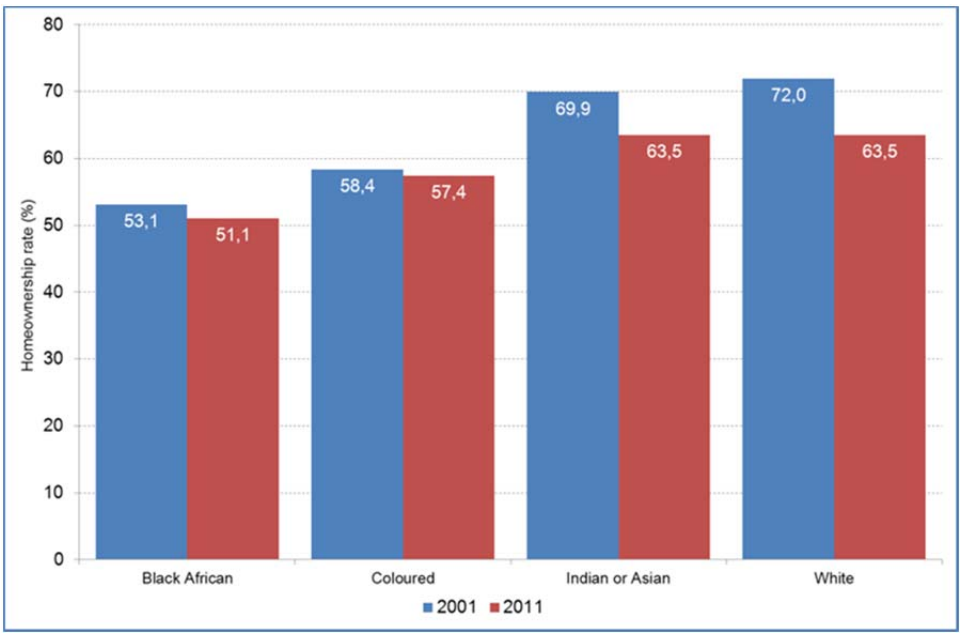
	Rank	Municipality	Province	Ownership rate
Highest ownership rates	1	Ezingoleni	KwaZulu-Natal	86,0
	2	Dr JS Moroka	Mpumalanga	82,4
	3	Maphumulo	KwaZulu-Natal	80,9
	4	Ndwedwe	KwaZulu-Natal	80,5
	5	Ngqushwa	Eastern Cape	78,8
	6	Umzumbe	KwaZulu-Natal	77,0
	7	Thembisile Hani	Mpumalanga	76,1
	8	Mbhashe	Eastern Cape	73,6
	9	Moretele	North West	73,1
	10	Port St Johns	Eastern Cape	72,9
Lowest ownership rates	225	Witzenberg	Western Cape	34,5
	226	Tokologo	Free State	31,6
	227	Rustenburg	North West	31,4
	228	Musina	Limpopo	31,3
	229	The Big 5 False Bay	KwaZulu-Natal	30,7
	230	Merafong City	Gauteng	29,8
	231	Mkhambathini	KwaZulu-Natal	26,5
	232	Westonaria	Gauteng	26,0
	233	Maruleng	Limpopo	24,7
	234	Thabazimbi	Limpopo	24,4

Source: Census 2011

Homeownership rates were highest in municipalities in KwaZulu-Natal, Eastern Cape and Mpumalanga where there are relatively high percentages of traditional land tenure arrangements. Tenure is usually secure once land is ceded by the traditional authority for use and construction of a dwelling. For poor households this is often the only way to have some form tenure security outside of direct state support. Lowest ownership rates were mostly found in municipalities in Gauteng, Limpopo and KwaZulu-Natal. Many of these areas are centred around mining or industrial complexes that have expanded rapidly over the decade under review and where land for settlement is relatively scarce and of high value.

10.3 Demographic characteristics of the household head

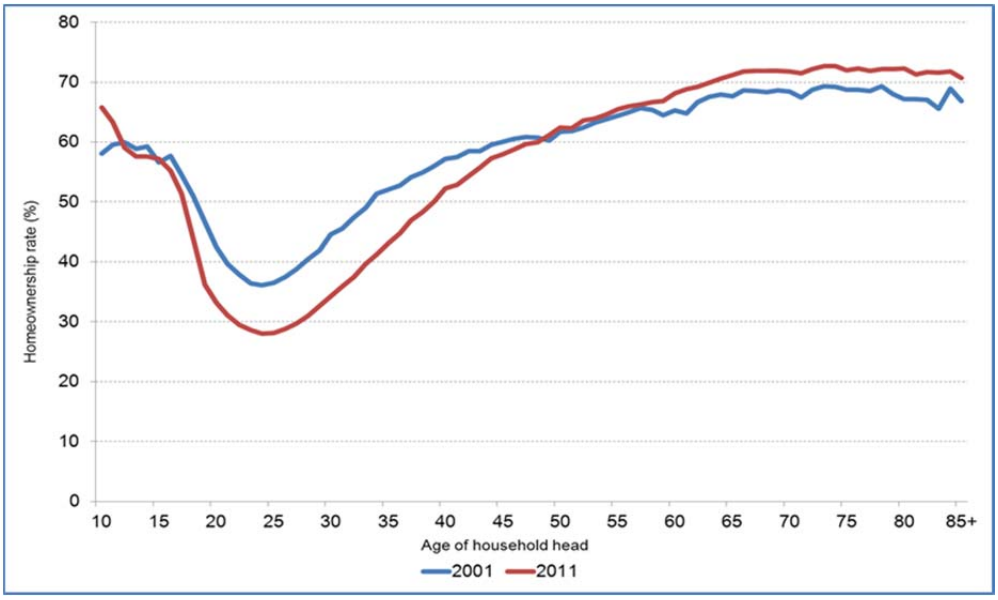
Figure 10.4: Homeownership rate by population group of household head, Census 2001 and Census 2011



Source: Census 2001 and 2011

In 2011 homeownership rates were highest amongst households headed by white (63,5%) and Indian/Asian household heads (63,5%) and lowest amongst black African household heads (51,1%). Figure 10.4 also shows that, as previously indicated, homeownership rates declined between 2001 and 2011 and that this affected all population groups. However, when looking at the magnitude of decline it becomes evident that households headed by white household heads and Indian/Asian household heads were the most likely to be affected, with a 8,5 percentage points decline for households headed by whites and a 6,4 percentage points decline for Indians/Asians.

Figure 10.5: Homeownership rate by age of household head, Census 2001 and Census 2011

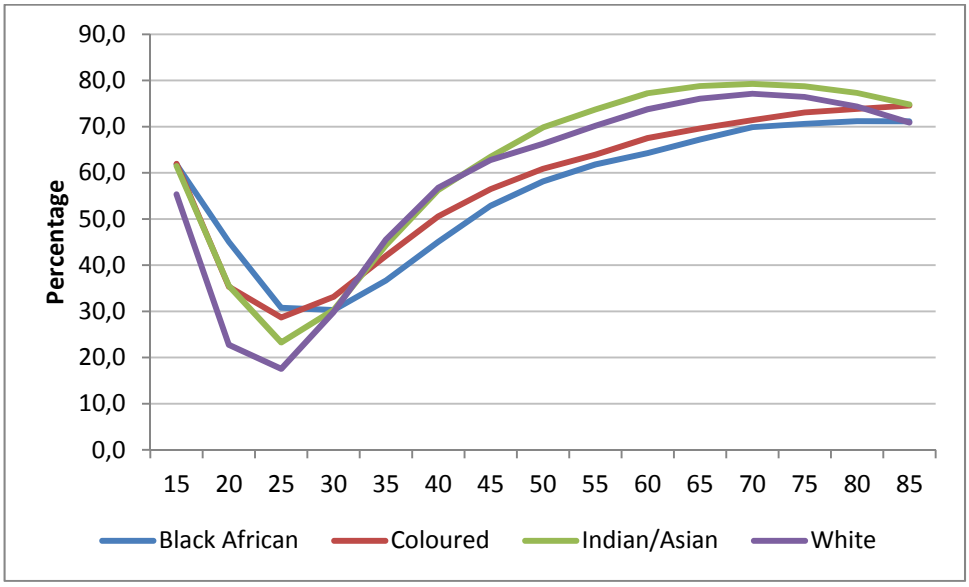


Source: Census 2001 and 2011

According to Figure 10.5, homeownership rates increase with age. It also shows that even though ownership rates have declined between Census 2001 and Census 2011, the situation of household heads 50 years and older has actually improved. It was primarily amongst households headed by individuals younger than 45 years where there has been a decline. This may be attributed to the stricter controls introduced on the issuing of home loans that came into effect in 2005 after the National Credit Act (Act No. 35 of 2005) was passed. This Act was part of a comprehensive legislation overhaul designed to protect the consumer in the credit market, but one of its other impacts was also that it became more difficult to obtain a home loan without the necessary deposit.

The relatively high ownership rates found amongst households headed by individuals younger than 20 years of age is more likely a reflection of dual residence and labour migration rather than ownership by teenagers per se. The census methodology of enumerating all individuals who were at a particular dwelling on census night means that teenagers of families headed by migrant workers will be considered household heads if their parents were enumerated/living somewhere else at the time of the census. Thus, even though they lived in a property owned by the household and they were counted as the household heads because their parents were elsewhere at the time of the census, the property itself was not owned by them per se.

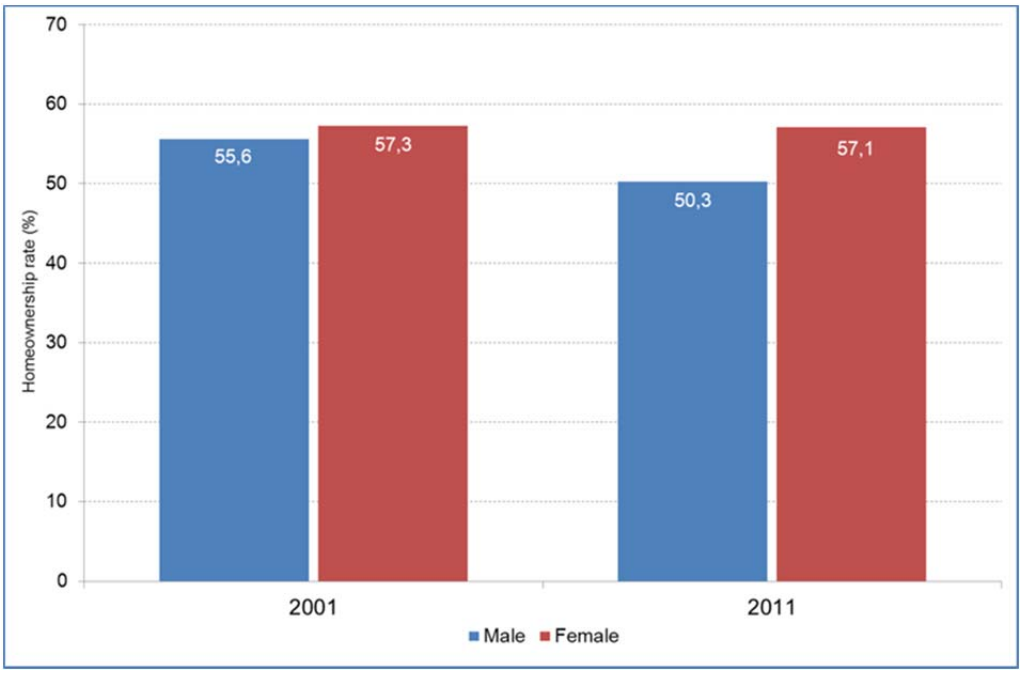
Figure 10.6: Homeownership rate by age and population group of the household head, Census 2011



Source: Census 2011

Until the age of 25 years black African household heads are more likely than any other population group to own their dwelling and white headed households the least (Figure 10.6). However, by the age of 35 years this situation begins to change with households headed by Indians/Asians and whites overtaking black Africans and coloureds. Amongst those 60 years and older ownership rates are highest amongst Indians/Asians and whites headed households. However, the gap between the population groups begins to narrow after age 70.

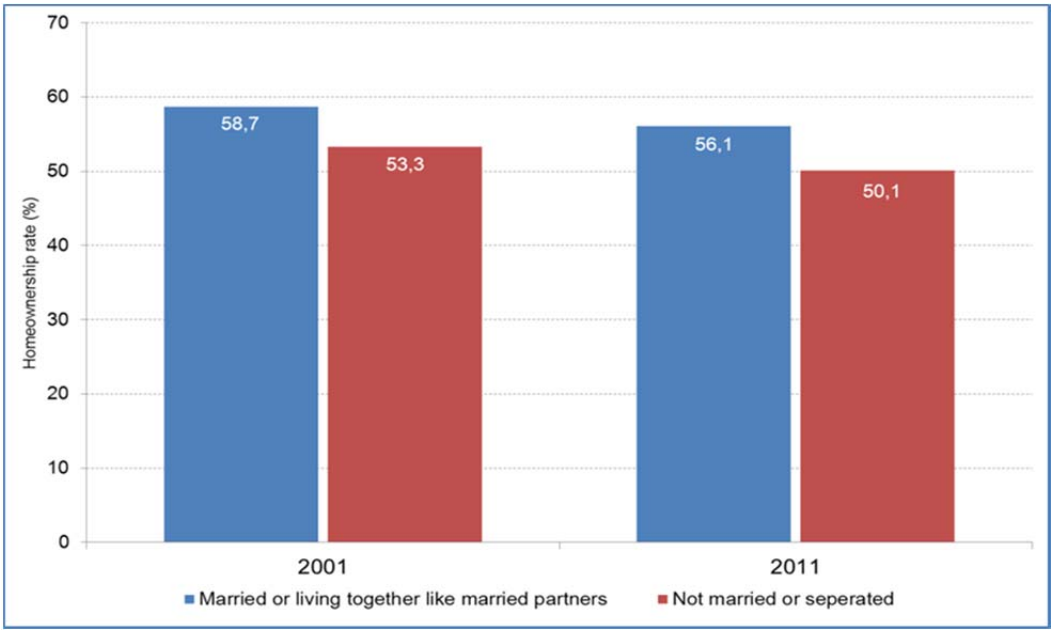
Figure 10.7: Homeownership rate by sex of the household head, Census 2001 and Census 2011



Source: Census 2001 and 2011

Figure 10.7 shows that homeownership rates were slightly higher for female-headed households than male-headed households and that the gap between male and female homeownership increased between 2001 and 2011 from 1,7 percentage points to 6,8 percentage points.

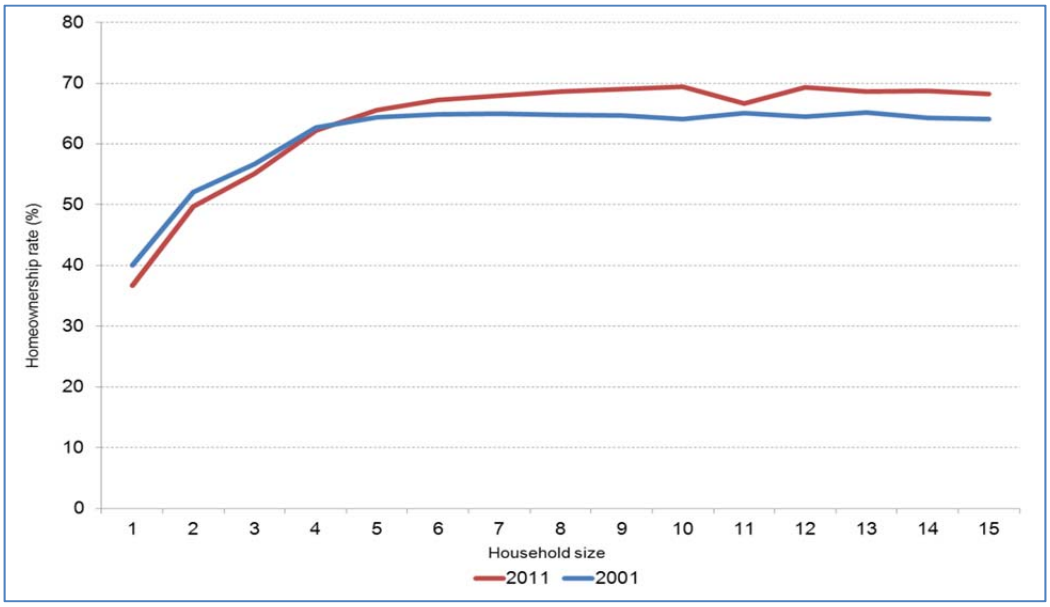
Figure 10.8: Homeownership rate by marital status, Census 2001 and Census 2011



Source: Census 2001 and 2011

Household heads who were married or living together were slightly more likely to own houses than their counterparts who were separated or not married (Figure 10.8). Both groups were equally affected by the decline in homeownership rates that took place between 2001 and 2011.

Figure 10.9: Homeownership rate by size of household, Census 2001 and Census 2011

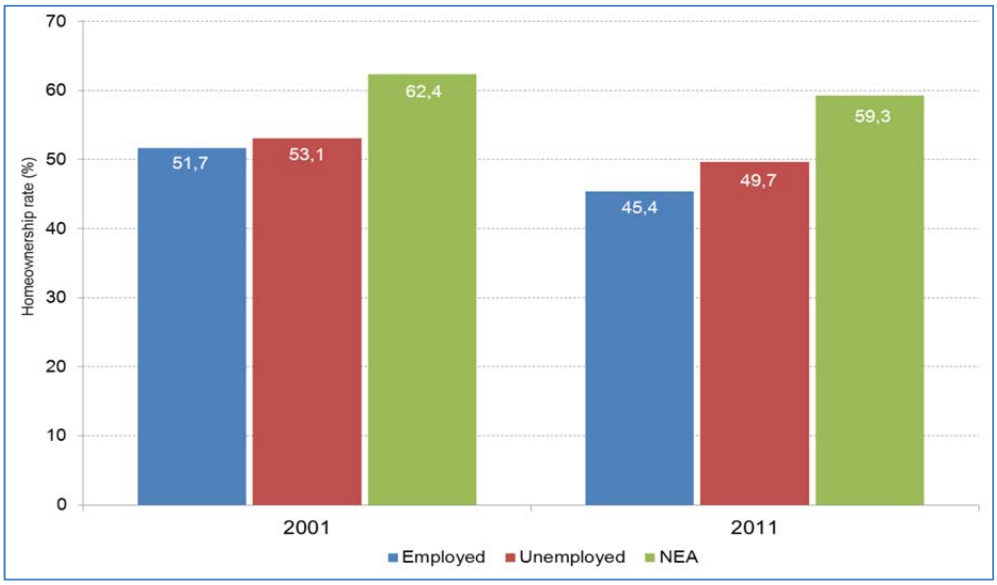


Source: Census 2001 and 2011

Figure 10.9 shows that homeownership rates for smaller households were lower in 2011 than they were in 2001. However, households consisting of four or more members were more likely in 2011 than in 2001 to own houses.

10.4 Employment and income status

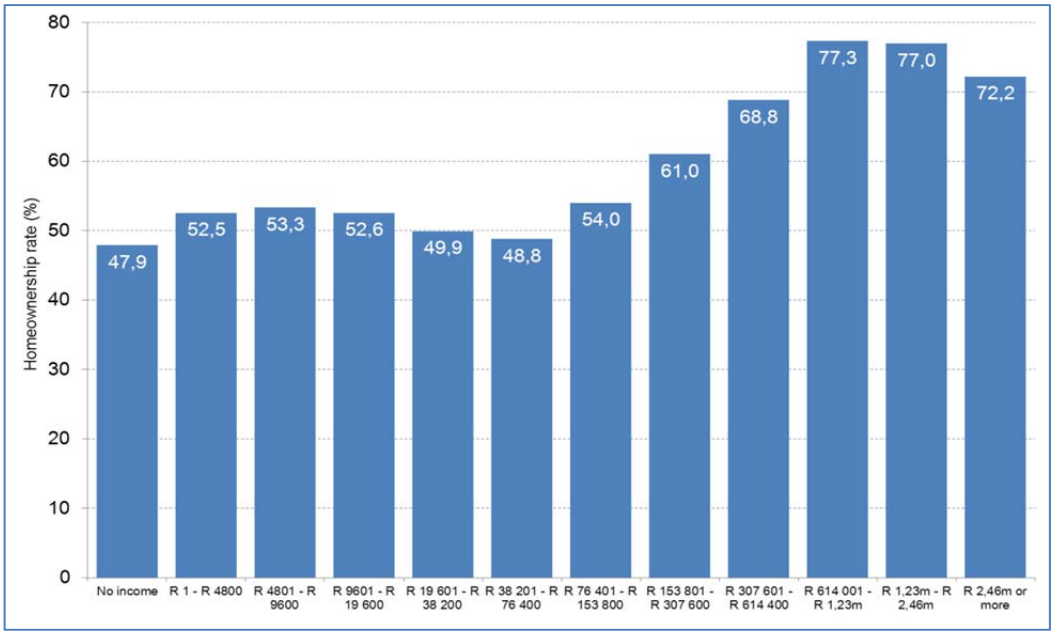
Figure 10.10: Homeownership rate by employment status of the household head, Census 2001 and Census 2011



Source: Census 2001 and 2011

According to Figure 10.10, homeownership rates were higher amongst unemployed and not economically active household heads than those who were employed.

Figure 10.11: Homeownership rates by annual household income, Census 2011

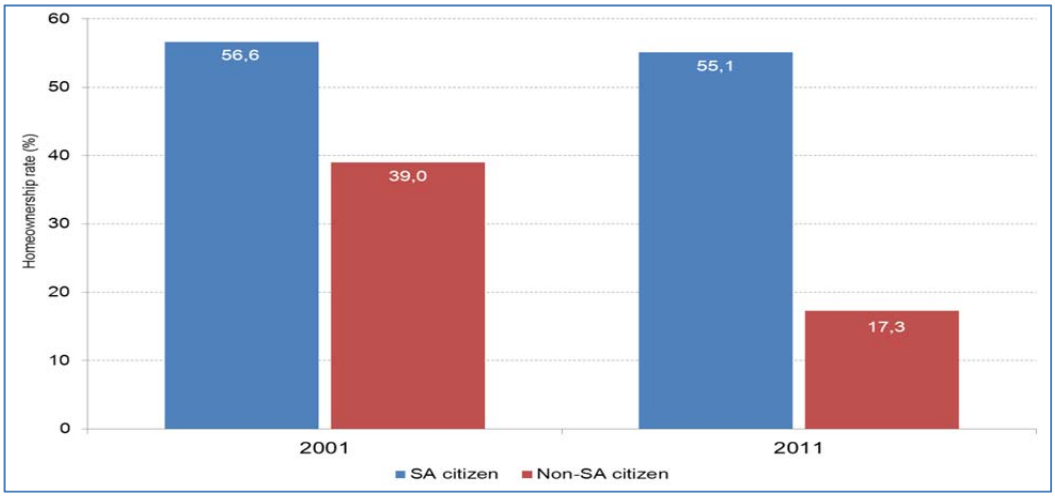


Source: Census 2011

The likelihood of owning a home increases with increased household income (Figure 10.11). However, as seen in Figure 10.11, that does not necessarily reflect employment status or income of the household head. As can be seen in the preceding graph, household heads that were employed were less likely to own homes than those who were not economically active or unemployed.

10.5 Citizenship and region of birth for non-South Africans

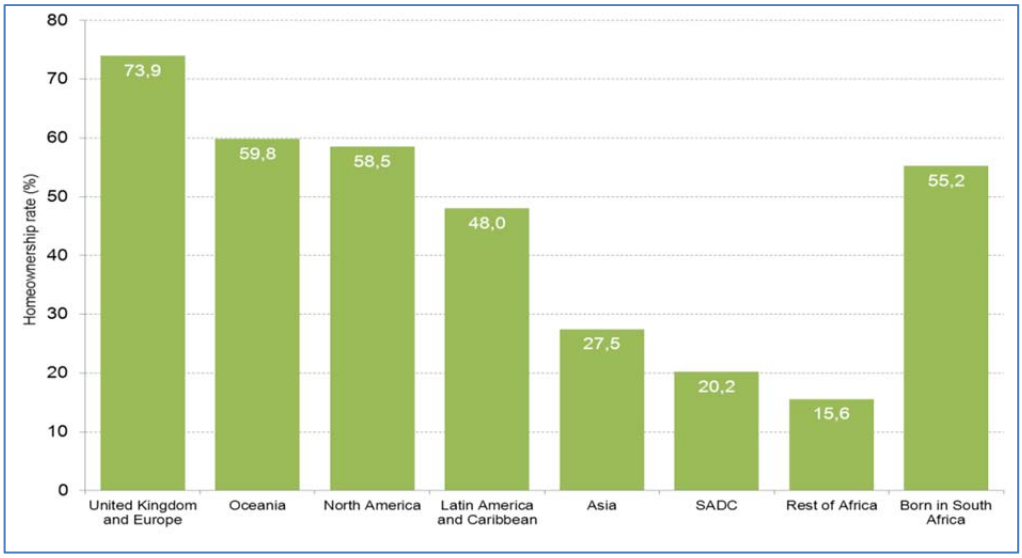
Figure 10.12: Homeownership rate by citizenship of the household head, Census 2001 and Census 2011



Source: Census 2001 and 2011

In both 2001 and 2011, non-citizens were significantly less likely than citizens to be homeowners, with a decline from 39% of non-citizens as homeowners in 2001 to 17,3% in 2011.

Figure 10.13: Homeownership rate by region of birth of the household head, Census 2011



Source: Census 2011

Household heads born in the United Kingdom and Europe, Oceania and North America were more likely than South African-born household heads to own their homes. More than seven out of ten household heads born in the United Kingdom and Europe owned their own homes.

Table 10.3 on the next page summarises the odds ratios that result from performing logistic regression on home ownership using GHS 2014 data. Households living in Mpumalanga (OR:1,6), Free State (OR:1,6) and Northern Cape (OR:1,5) were one and a half times more likely to be home owners than their counterparts in the Western Cape. Households living in other urban areas have similar odds to own their homes as inhabitants of metropolitan areas, but households living in rural areas were three times more likely to own their dwellings. Households living in traditional dwellings are1,8 times more likely as those living in formal dwellings to own their dwellings, whilst households living in informal dwellings in settlements are 1,5 times more likely. Households heads who are aged 60 years and older are 12,2 times and those aged 35-59 4,1 times more likely than youth (15-34 years) to own their dwellings, whilst female headed households are 1,2 times more likely than male headed households to own their dwellings. Having at least one employed household members has the same ownership odds as having no employed household member and whites and Asians/Indians are 1,3 times more likely than Africans to own their dwellings.

Table 10.3: Predictors of homeownership using logistics regression, 2014

Probability modelled	Ownership of dwelling	95% Wald	
Odds ratio			
Province		**Confidence limits**	
Western Cape (reference category)			
Eastern Cape	1,099	1,091	1,106
Northern Cape	1,515	1,497	1,534
Free State	1,548	1,534	1,561
KwaZulu-Natal	1,017	1,011	1,024
North West	1,127	1,118	1,136
Gauteng	1,062	1,056	1,068
Mpumalanga	1,580	1,567	1,593
Limpopo	1,193	1,183	1,204
Geographical location			
Metro (reference category)			
Non-Metro, Urban	1,069	1,064	1,073
Tribal area	3,506	3,484	3,529
Rural formal	0,429	0,425	0,432
Dwelling type			
Formal (reference category)			
Traditional	1,794	1,776	1,812
Informal: backyards	0,07	0,069	0,07
Informal: settlements	1,459	1,45	1,468
Household employment			
At least one household member employed (Reference group)			
No employed member in household	1,094	1,088	1,099
Per capita income quintile			
Poorest quintile (reference category)			
Quintile 2	0,513	0,51	0,517
Quintile 3	0,327	0,325	0,329
Quintile 4	0,236	0,234	0,237
Wealthiest quintile	0,233	0,231	0,234
Age of household head			
15–34 (reference category)			
35–59	4,115	4,101	4,129
60+	12,186	12,112	12,261
Population group of household head			
Black African (reference category)			
Coloured	1,169	1,162	1,176
Indian/Asian	1,261	1,25	1,271
White	1,311	1,305	1,318
Sex of household head			
Male (reference category)			
Female	1,205	1,201	1,209
Education level of household head			
No schooling (reference category)			
Less than grade 7	0,978	0,968	0,988
Grade 7	0,914	0,904	0,925
Less than grade 12	0,756	0,749	0,764
Grade 12	0,692	0,685	0,699
Post-grade 12	0,879	0,87	0,888

10.6 Summary and conclusion

Tenure security is an important tenet of socio-economic rights and the concept of adequate housing. The ownership of a property provides security beyond protection against the elements – not only can it be used to protect the household against financial shocks and stresses through its value as collateral, but that same characteristic can be used as collateral to invest in economic and livelihood opportunities towards improving the household's current and future wellbeing.

The section has found that homeownership rates have decreased between 2001 and 2011. This may partly be due to the fact that neither census nor household surveys are measuring multiple property ownership/occupation. Thus, households who migrate and maintain dual residences are only asked about the dwellings that they occupy at the survey point. Ownership rates did not decline across all provinces; they actually increased in Free State and Eastern Cape. The biggest decline was found in Gauteng (7,6 percentage points). According to GHS data, rental of formal dwellings increased from 20% to 22% between 2002 and 2014, whilst rental of informal dwellings nearly doubled from 19% to 36% during the same reference period.

Homeownership rates are highest amongst households headed by white and Indian/Asian household heads and lowest amongst black Africans. However, until the age of 25 years households headed by black Africans and coloureds are more likely to own their dwellings than their Indian/Asian and white counterparts.

Most of the decline in ownership rates between 2001 and 2011 can be attributed to a decline in ownership rates amongst youth aged 20–35. Ownership has actually increased amongst the elderly (60 years and older), which bodes well for this particular vulnerable group. Female-headed households are more likely to be homeowners, with an increasing gap between them and their male counterparts since 2001. Households with higher annual incomes are more likely to own homes than those with lower incomes or none. However, low-income households are not excluded from the homeownership market in that households headed by individuals who are not economically active or not employed are more likely to own their homes than those who have an employed household head. South African citizens are significantly more likely than non-citizens to own their dwellings. The likelihood that households headed by individuals born in the UK or Europe, Oceania or North America own homes were higher than that of South African-born household heads, with the proportion for those born in the UK and Europe the highest at 74%.

Odds ratio analysis shows that:

- households living in traditional dwellings and tribal areas are significantly more likely to own their dwellings than those living in formal dwellings and or urban/metropolitan areas
- household heads 35 years and older are significantly more likely to own their dwellings than those headed by youth (15-34 years).
- Whites and Indians/Asians are 1.3 times more likely to own their dwellings than Africans.

11. State-subsidised (RDP) housing

11.1 Introduction

Breaking New Ground: a comprehensive plan for the development of sustainable human settlements summarises the vision of the then Department of Housing (DOH, 2004) to promote the achievement of a non-racial, integrated society through the development of sustainable human settlements and quality housing.

Post-1994, the government has sought to facilitate access to adequate housing through a number of policy mechanisms. One of the most direct interventions was through state-subsidised housing. Even though this aspect, of what is essentially state provisioning, was heavily emphasized during the early years of democracy, policies and programmes have increasingly been developed to a point of recognising the importance of creating the conditions necessary for the state-subsidised housing market to operate normally as part of the broader non-subsidised housing market. This was seen as an important pre-condition for creating a growing and prosperous economy. Government was increasingly looking at creating mechanisms that would leverage the asset potential of housing and the role that housing can play in poverty alleviation (DOH, 2004).

Post-1994, the delivery of state-subsidised housing was accelerated by using a two-pronged approach:

- Subsidised housing for ownership was instituted in 1994 and initial delivery was done by means of the Reconstruction and Development Programme (RDP). The primary target at that point was to deliver one million housing units within five years.
- Subsidised housing for rental (social housing subsidy) was launched in 1996 and was aimed at assisting poor households to gain access to rental properties.

11.2 General overview

This section provides a general overview of the RDP/state-subsidised housing sector, the condition of the structure, tenure status and the extent to which this kind of housing has been used as collateral.

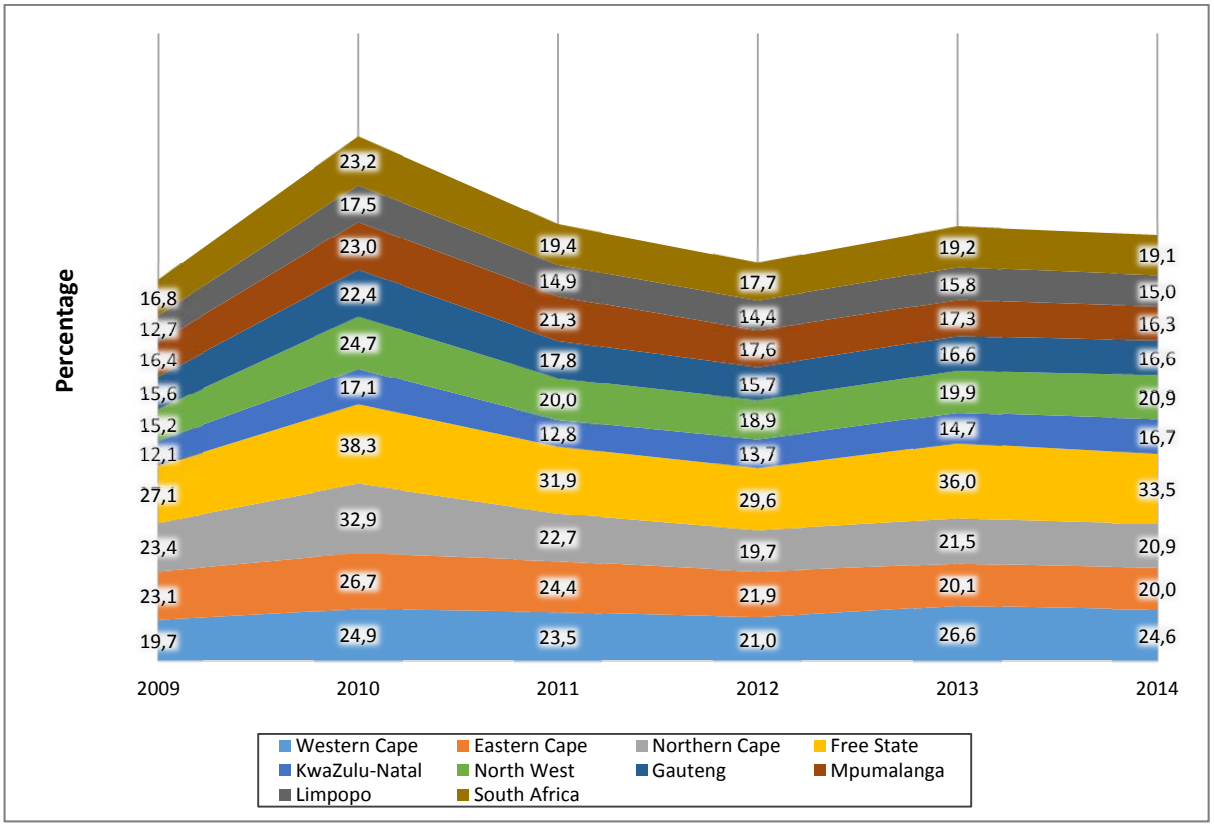
Map 11.1a: RDP housing development in the City of Tshwane, Nellmapius 2005

Tshwane image 2005

Map 11.1b: RDP housing development in the City of Tshwane, Nellmapius 2015

Digital globe imagery 2015

Figure 11.1: Percentage of households who live in a RDP/subsidised dwelling type as a proportion of all formal dwellings by province, 2009–2014

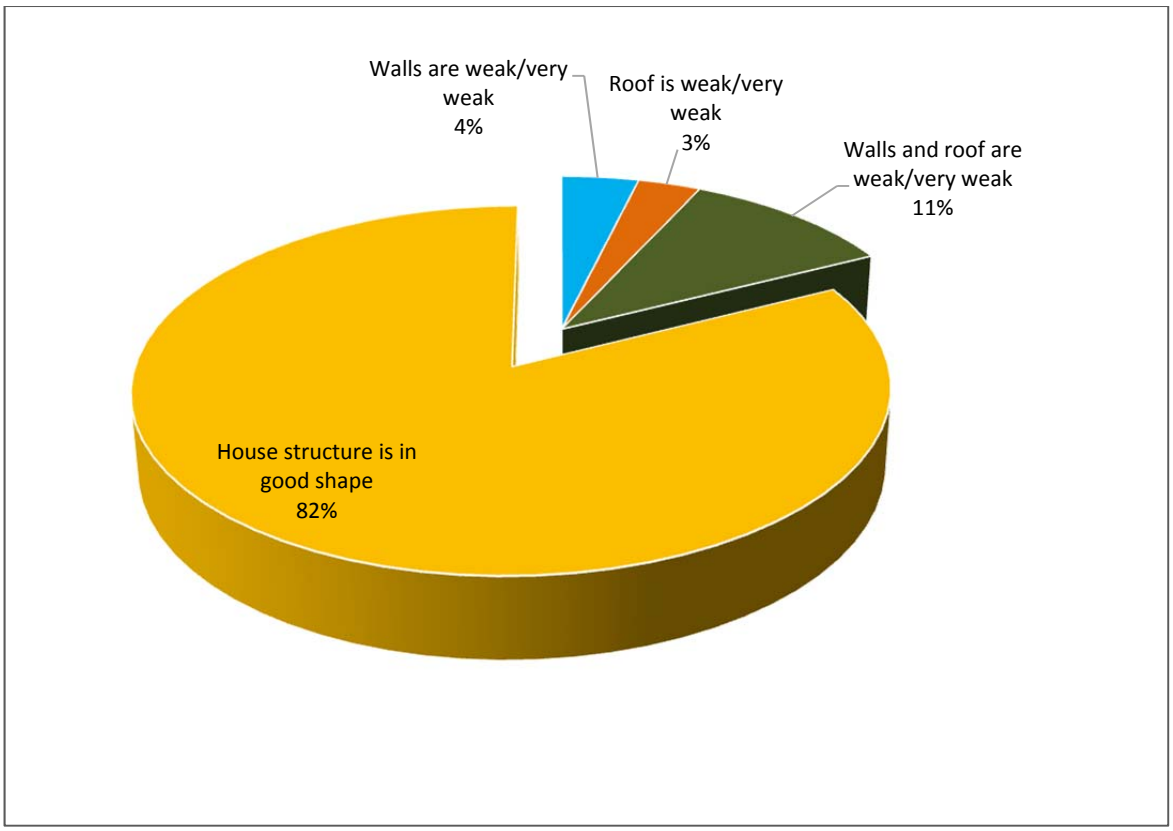


Source: GHS 2009-2014

Figure 11.1 shows that Free State had more households in RDP/subsidised dwellings as a percentage of all formal dwellings than any other province. RDP/subsidised dwelling types as a proportion of formal dwellings has increased from 16,8% in 2009 to 19,1% in 2014. KwaZulu-Natal was the least likely to have RDP/subsidised housing between 2009 and 2013, but was replaced by Limpopo in 2014 where only 15% of formal dwellings were RDP/subsidised dwellings.

The sudden spike in the percentage of households who live in RDP housing as a percentage of all formal dwellings in 2010 was as a result of a decline in the number of households who lived in formal non-RDP dwellings, which was used as the divisor to calculate these percentages. This reflects the impact of the 2008 global economic crises on home ownership and the occupation of formal dwellings.

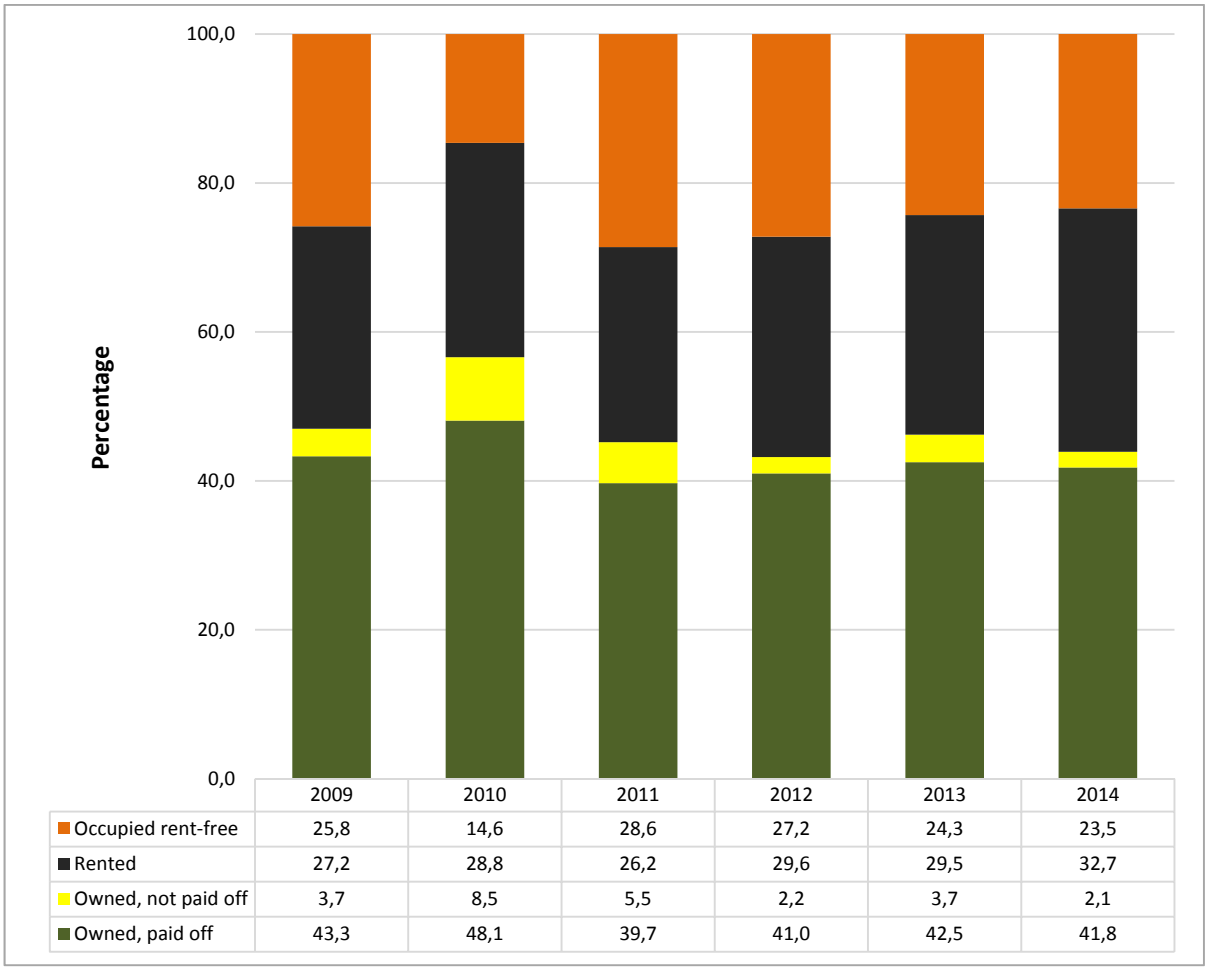
Figure 11.2: Percentage of households living in RDP/subsidised dwellings by condition of their structure, 2014



Source: GHS 2014

The figure above shows that the majority of households living in RDP housing reported that the condition of their structures was good. Only 11% felt that their walls and roofs were weak/very weak.

Figure 11.3: Percentage of households who were not the first occupants of an RDP/subsidised dwelling by tenure status, 2009–2014

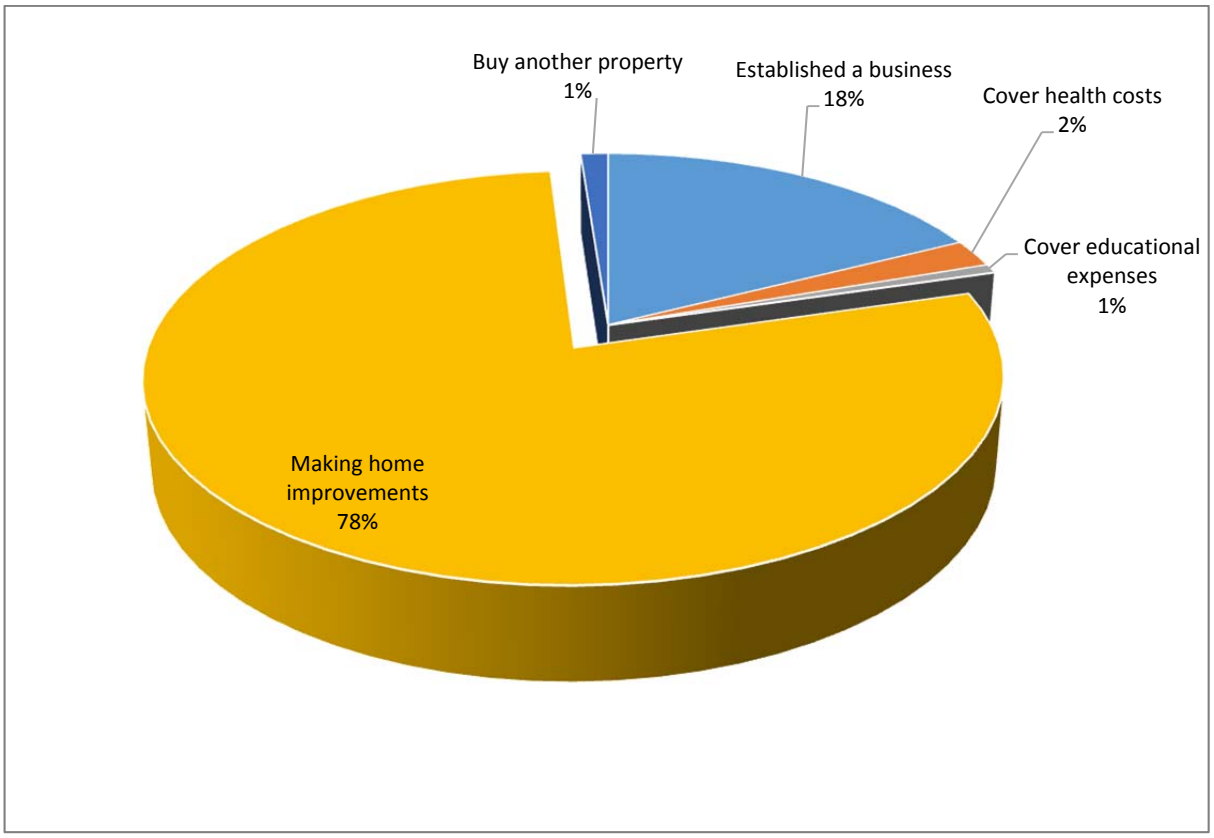


	2009	2010	2011	2012	2013	2014
Occupied rent-free	25,8	14,6	28,6	27,2	24,3	23,5
Rented	27,2	28,8	26,2	29,6	29,5	32,7
Owned, not paid off	3,7	8,5	5,5	2,2	3,7	2,1
Owned, paid off	43,3	48,1	39,7	41,0	42,5	41,8

Source: GHS 2009-2014

This figure shows the percentage of households that reported that they were not the first occupants of the RDP/state-subsidised houses in which they live mostly own those houses (41,8%). A further 32,7% rent the houses, whilst 23,5% occupy the houses rent-free. Rent-free occupation declined between 2009 and 2014 from 25,8% to 23,5%, while owned and paid off houses fluctuated but generally declined from 43,3% in 2009 to 41,8% 2014.

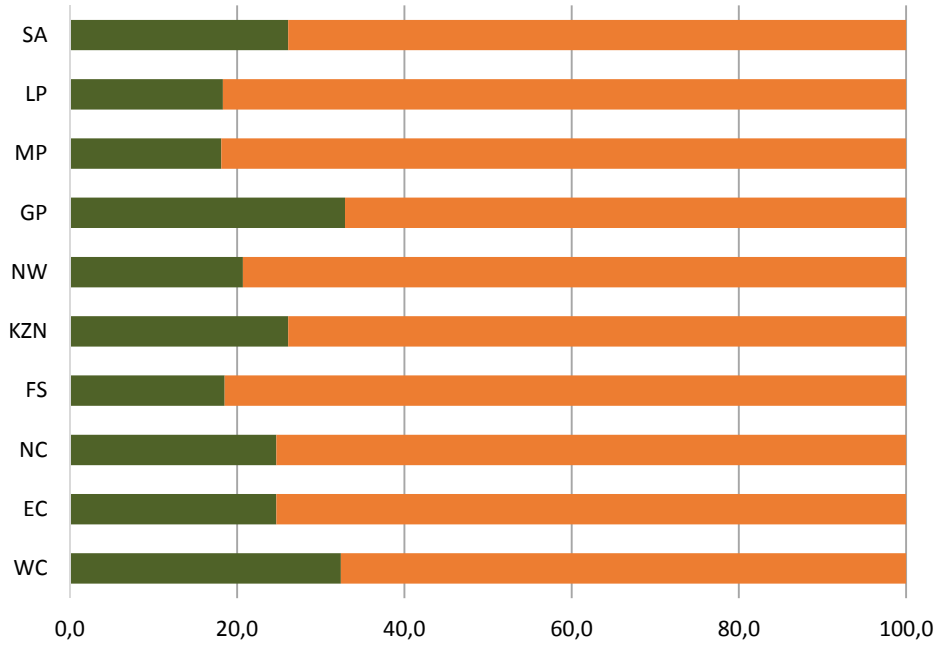
Figure 11.4: Percentage of households living in RDP/subsidised dwellings who have used their houses as security, 2014



Source: GHS 2014

More than three-quarters of households living in RDP/state-subsidised housing (78%) used their houses as security for making home improvements, while 18% used it to establish a business.

Figure 11.5: Percentage of households living in overcrowded conditions in RDP/subsidised dwellings, 2014



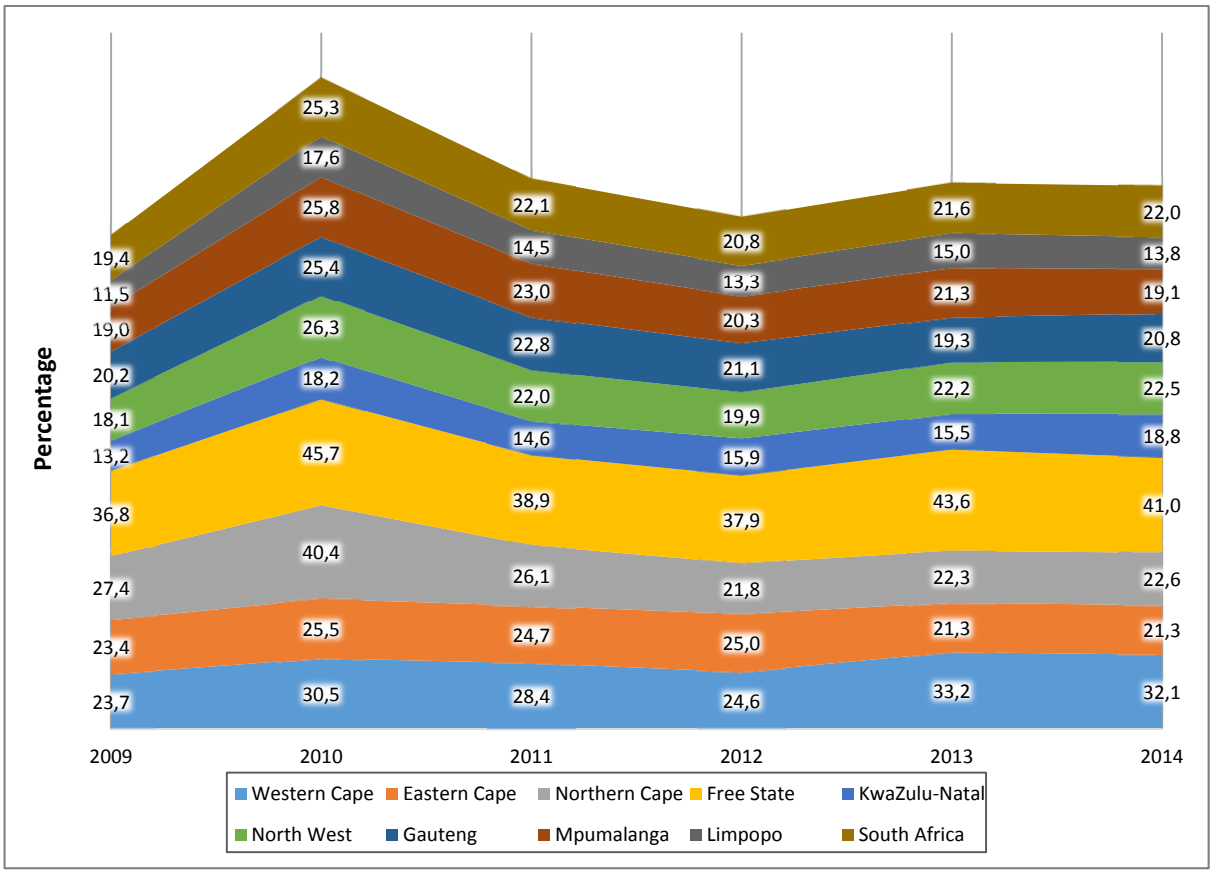
	WC	EC	NC	FS	KZN	NW	GP	MP	LP	SA
Household lives in overcrowded conditions	32,4	24,7	24,7	18,5	26,1	20,7	32,9	18,1	18,3	26,1
Household doesn't lives in overcrowded conditions	67,6	75,3	75,3	81,5	73,9	79,3	67,1	81,9	81,7	73,9

Source: GHS 2014

A household is defined to be living in overcrowded conditions if the ratio of persons to rooms within the dwelling unit is at least 2:1. Figure 11.5 shows that slightly more than a quarter of households occupying RDP/state-subsidised housing live in overcrowded conditions. Overcrowding was most likely to be found in Gauteng (32,9%), Western Cape (32,4%) and KwaZulu-Natal (26,1%).

11.3 Socio-economic characteristics of household living in RDP/state-subsidised housing

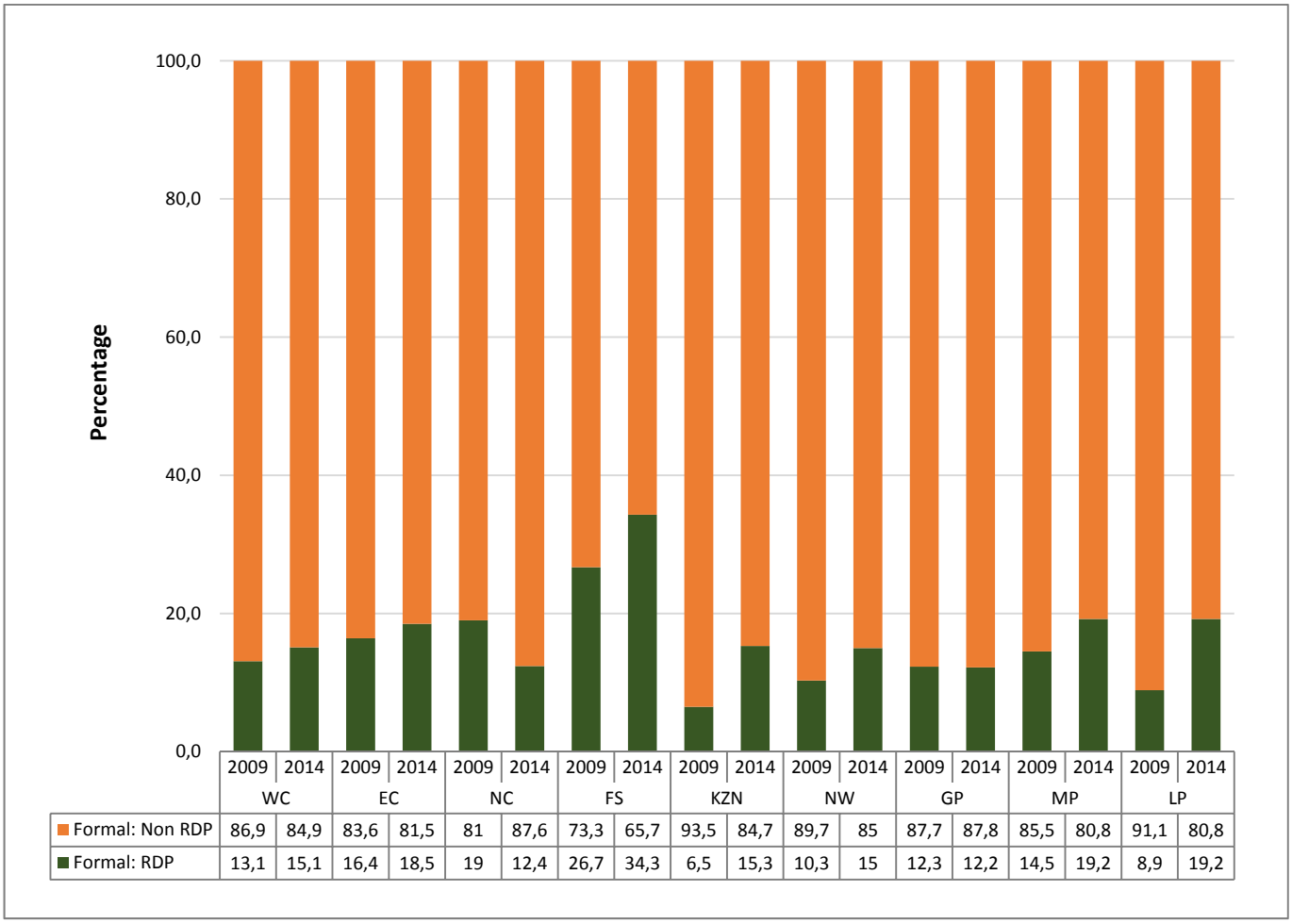
Figure 11.6: Percentage of female-headed households who live in an RDP/state-subsidised dwelling type as a proportion of all female-headed formal types of dwelling by province, 2009–2014



Source: GHS 2009-2014

Figure 11.6 shows that in 2014, of all the female-headed households in formal settlements in South Africa, Free State had the highest proportion of female-headed households that lived in RDP dwellings (41,0%), followed by Western Cape with 32,1%. In 2014, Limpopo had the lowest proportion of female-headed households that lived in RDP/state-subsidised housing (13, 8%). The most significant increases between 2009 and 2014 were found in Western Cape (8,4 percentage points) and KwaZulu-Natal (5,6 percentage points).

Figure 11.7: Percentage of elderly-headed (60 years and older) households who live in RDP/state-subsidised housing relative to elderly-headed households in other formal dwelling types by province, 2009 and 2014

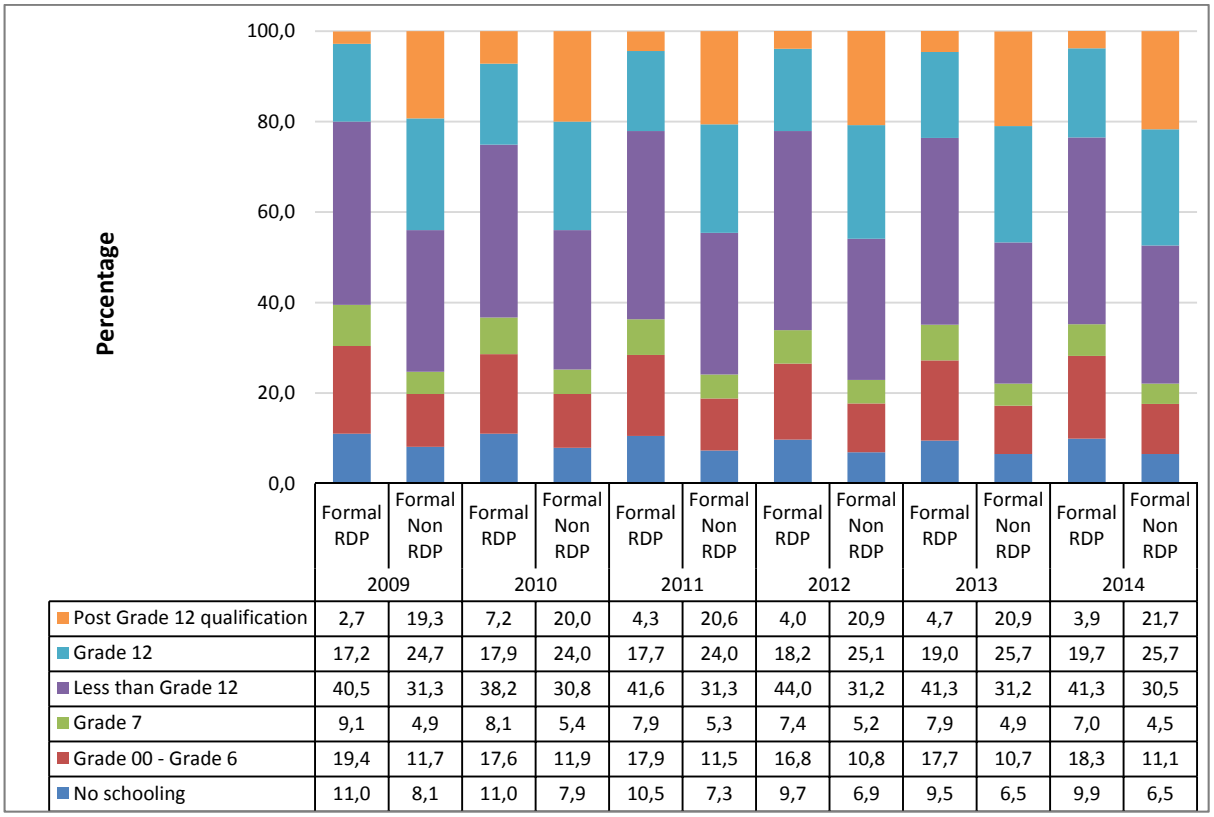


	2009	2014	2009	2014	2009	2014	2009	2014	2009	2014	2009	2014	2009	2014	2009	2014	2009	2014
	WC		EC		NC		FS		KZN		NW		GP		MP		LP	
Formal: Non RDP	86,9	84,9	83,6	81,5	81	87,6	73,3	65,7	93,5	84,7	89,7	85	87,7	87,8	85,5	80,8	91,1	80,8
Formal: RDP	13,1	15,1	16,4	18,5	19	12,4	26,7	34,3	6,5	15,3	10,3	15	12,3	12,2	14,5	19,2	8,9	19,2

Source: GHS 2009 and 2014

Figure 11.7 shows that most households headed by elderly persons lived in formal non-RDP dwelling types, rather than RDP/state-subsidised dwellings. In 2009, KwaZulu-Natal (7%) and Limpopo (9%) had the lowest proportions of elderly-headed households living in RDP dwellings compared to other provinces. The provinces with the highest proportion of elderly-headed households living in RDP dwellings in 2009 were Free State (27%) and Northern Cape (19%). In 2014, the provinces with the highest proportion of elderly-headed households living in such dwellings were Free State (34%), as well as Mpumalanga, Limpopo and Eastern Cape, equally with 19% of households.

Figure 11.8: Percentage of households living in an RDP/subsidised and non-RDP formal dwelling by highest educational level of the household head, 2009–2014



	2009		2010		2011		2012		2013		2014	
	Formal RDP	Formal Non RDP	Formal RDP	Formal Non RDP	Formal RDP	Formal Non RDP	Formal RDP	Formal Non RDP	Formal RDP	Formal Non RDP	Formal RDP	Formal Non RDP
Post Grade 12 qualification	2,7	19,3	7,2	20,0	4,3	20,6	4,0	20,9	4,7	20,9	3,9	21,7
Grade 12	17,2	24,7	17,9	24,0	17,7	24,0	18,2	25,1	19,0	25,7	19,7	25,7
Less than Grade 12	40,5	31,3	38,2	30,8	41,6	31,3	44,0	31,2	41,3	31,2	41,3	30,5
Grade 7	9,1	4,9	8,1	5,4	7,9	5,3	7,4	5,2	7,9	4,9	7,0	4,5
Grade 00 - Grade 6	19,4	11,7	17,6	11,9	17,9	11,5	16,8	10,8	17,7	10,7	18,3	11,1
No schooling	11,0	8,1	11,0	7,9	10,5	7,3	9,7	6,9	9,5	6,5	9,9	6,5

Source: GHS 2009-2014

Figure 11.8 indicates that the majority of households in formal dwelling types (RDP/subsidised v. non-RDP) were headed by individuals with less than grade 12 as their highest level of education. This has been a consistent pattern since 2009. The figure confirms that since 2009, RDP/subsidised dwellings were less likely to be headed by people with post-grade 12 qualifications, when compared to those that were living in formal non-RDP dwelling types. In 2014, 9,9% of households in RDP/subsidised dwelling types were headed by individuals who did not go to school, whereas only 6,5% of households in non-RDP dwellings had the same educational background.

Table 11.1 on the next page confirms that the highest percentage of children living in formal housing and that reported to be exposed to early childhood development (ECD) was observed in the age category 2–3 years. The table also shows that in 2014, there was no significant difference in the ECD exposure of children aged 2–3 years who were living in RDP/subsidised dwellings (32,6%) and those who were living in formal non-RDP dwellings (32 5%). The percentage of children aged 0–4 years who lived in RDP/subsidised dwelling types and who were exposed to ECD has increased from 50,3% in 2009 to 72,2% in 2014, and the percentage of those who were living in formal non-RDP dwellings increased from 46,7% in 2009 to 74,1% in 2014.

Table 11.1: Percentage of persons aged 0–4 years living in formal dwellings by exposure to early childhood development, 2009–2014

		2009		2010		2011		2012		2013		2014	
		Formal RDP	Formal non-RDP	Formal RDP	Formal non-RDP	Formal RDP	Formal non-RDP	Formal RDP	Formal non-RDP	Formal RDP	Formal non-RDP	Formal RDP	Formal non-RDP
Exposed to ECD	0 - 1 year old	13,9	13,3	22,3	21,3	22,6	20,3	28,1	29,4	24,8	24,2	23,2	23,8
	2 - 3 years old	23,7	20,3	29,8	29,2	29,6	32,1	36,7	36,1	31,8	33,4	32,6	32,5
	4 years old	12,8	13,2	15,7	17,7	16,1	16,6	17,3	20	18,1	19,1	16,5	17,9
	Total	**50,3**	**46,7**	**67,8**	**68,2**	**68,3**	**69**	**82,1**	**85,5**	**74,7**	**76,8**	**72,2**	**74,1**
Not exposed to ECD	0 - 1 year old	26,7	26,1	17,3	17,2	20,1	17,4	4,3	2,3	14,9	13,2	16,1	14,9
	2 - 3 years old	17,2	19,4	11,7	11	8,8	10,5	7,7	6,7	8,3	8	9,6	8,8
	4 years old	5,8	7,7	3,2	3,5	2,9	3,1	5,9	5,5	2,1	2,1	2	2,2
	Total	**49,7**	**53,3**	**32,2**	**31,8**	**31,7**	**31**	**17,9**	**14,5**	**25,3**	**23,2**	**27,8**	**25,9**
Total		**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

Source: GHS 2009-2014

Table 11.2: Percentage of households living in RDP/subsidised dwellings with at least one member employed, and the income quintile of the household, 2009 and 2014

	2009		2010		2011		2012		2013		2014	
	Formal RDP	Formal non-RDP	Formal RDP	Formal non-RDP	Formal RDP	Formal non-RDP	Formal RDP	Formal non-RDP	Formal RDP	Formal non-RDP	Formal RDP	Formal non-RDP
Employment status[2]												
At least one person employed in household	68,2	76,5	68,7	73,4	68,4	73,1	69,8	74,6	71,3	76,3	70,9	75,7
None employed in household	31,8	23,5	31,3	26,6	31,6	26,9	30,2	25,4	28,7	23,7	29,1	24,3
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**
HH income quintile												
Poorest quintile	26,5	15,0	23,5	15,2	25,1	15,6	27,5	15,4	26,9	14,8	28,5	15,1
Quintile 2	26,0	16,4	24,1	16,5	25,2	16,4	24,5	17,0	26,6	16,6	27,8	17,6
Quintile 3	23,9	18,1	23,2	18,5	23,1	18,5	23,4	18,3	25,6	17,8	23,9	17,5
Quintile 4	18,0	21,3	18,2	20,6	18,9	21,9	18,2	20,7	15,8	22,1	15,2	23,1
Richest quintile	5,5	29,1	10,9	29,2	7,7	27,6	6,4	28,6	5,1	28,7	4,7	26,7
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

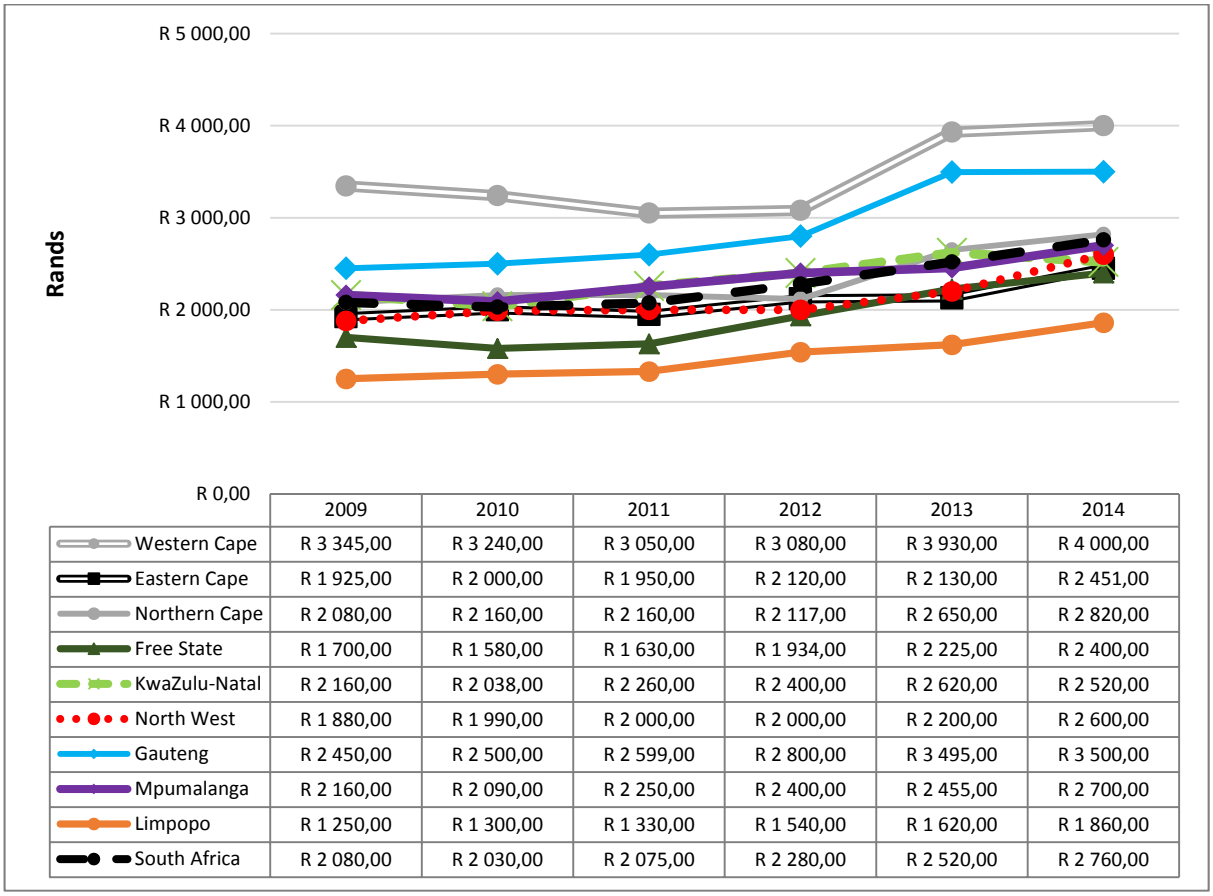
Source: GHS 2009-2014

[2] The early years of the time series did not include all the questions needed to calculate the official employment status. These figures are based on the percentages of individuals who worked during the 7 days preceding the survey.

Table 11.2 on the previous page shows that the percentage of households in RDP/subsidised dwellings that had at least one employed household member has increased from 68% in 2009 to about 71% in 2014. Meanwhile the percentage of households that lived in formal non-RDP dwellings with at least one person employed has remained relative consistent between 2009 and 2014 at approximately 24%.

The table further indicates that in 2014, 4,7% of households that reported to live in RDP/subsidised dwellings were in the highest income quintile as opposed to 27% of households that lived in formal non-RDP/subsidised dwellings. The table also shows that households from quintiles 1 and 2 were more likely to live in RDP/subsidised dwellings than in formal non-RDP dwellings. The percentage of households that reported to live in RDP/subsidised dwellings that were in quintile 1 increased from 26,5% in 2009 to 28,5% in 2014. Overall 8 in 10 households living in RDP formal housing are from quintiles 1 to 3, whilst half of the households living in formal non –RDP households are from quintiles 4 and 5.

Figure 11.9: Median income of households living in RDP/subsidised dwellings, 2009–2014

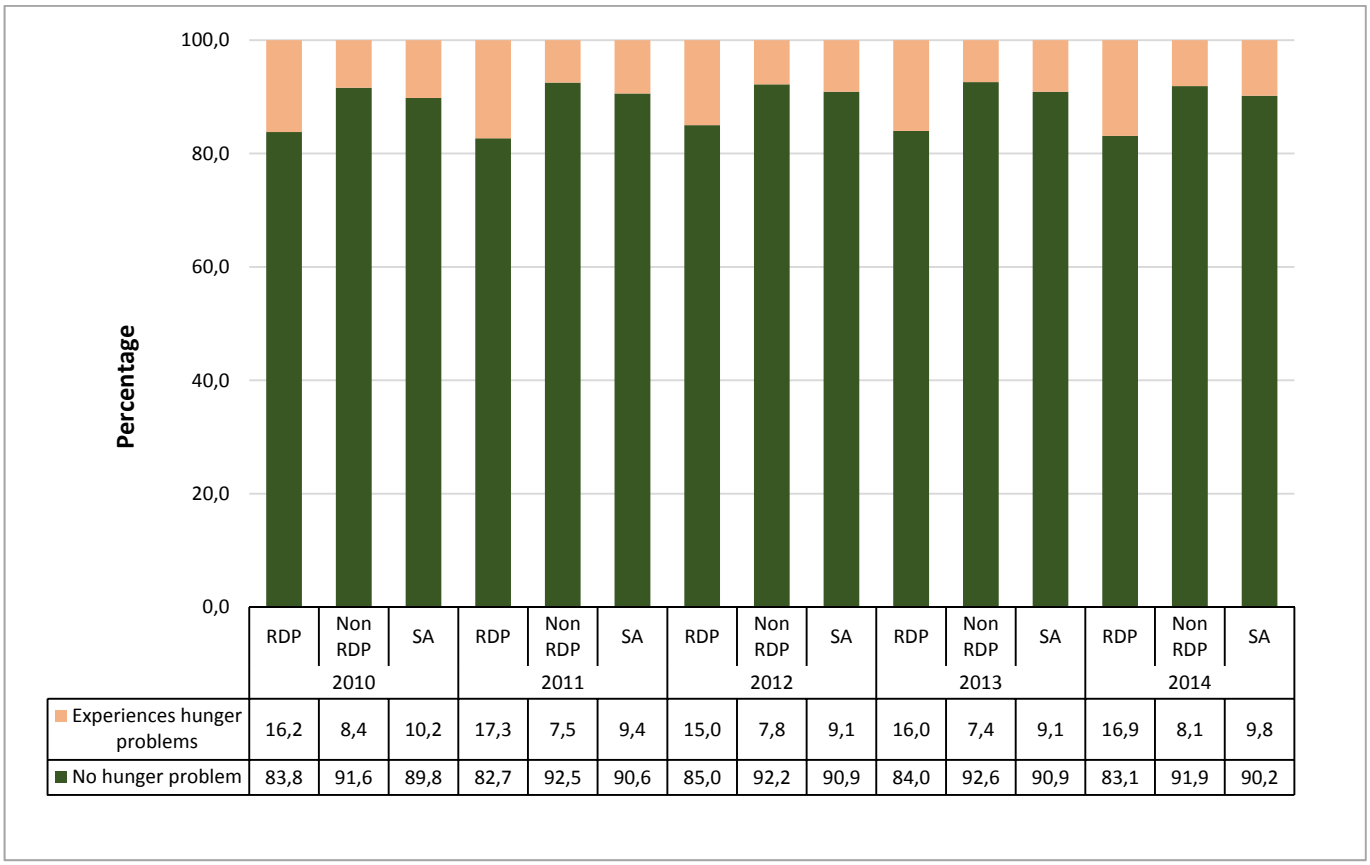


	2009	2010	2011	2012	2013	2014
Western Cape	R 3 345,00	R 3 240,00	R 3 050,00	R 3 080,00	R 3 930,00	R 4 000,00
Eastern Cape	R 1 925,00	R 2 000,00	R 1 950,00	R 2 120,00	R 2 130,00	R 2 451,00
Northern Cape	R 2 080,00	R 2 160,00	R 2 160,00	R 2 117,00	R 2 650,00	R 2 820,00
Free State	R 1 700,00	R 1 580,00	R 1 630,00	R 1 934,00	R 2 225,00	R 2 400,00
KwaZulu-Natal	R 2 160,00	R 2 038,00	R 2 260,00	R 2 400,00	R 2 620,00	R 2 520,00
North West	R 1 880,00	R 1 990,00	R 2 000,00	R 2 000,00	R 2 200,00	R 2 600,00
Gauteng	R 2 450,00	R 2 500,00	R 2 599,00	R 2 800,00	R 3 495,00	R 3 500,00
Mpumalanga	R 2 160,00	R 2 090,00	R 2 250,00	R 2 400,00	R 2 455,00	R 2 700,00
Limpopo	R 1 250,00	R 1 300,00	R 1 330,00	R 1 540,00	R 1 620,00	R 1 860,00
South Africa	R 2 080,00	R 2 030,00	R 2 075,00	R 2 280,00	R 2 520,00	R 2 760,00

Source: GHS 2009-2014

Figure 11.9 shows that there was an overall increase in the median income of households for RDP/subsidised dwellings, in the country from R2 080.00 in 2009 to R2 760.00 in 2014. Households living in RDP/subsidised dwellings in the Western Cape had the highest median income between 2009 and 2014. Median incomes in the province increased from R3 345.00 in 2009 to R4 000.00 in 2014. Western Cape was followed by Gauteng with median income increases from R2 450.00 in 2009 to R3 500.00 in 2014. Limpopo had the lowest median income of households throughout the years, albeit with increases over time. The lowest median income was R1 250.00 in 2009, which then increased to R1 860.00 in 2014.

Figure 11.10: Percentage of households with food security challenges living in RDP/subsidised and non-RDP dwellings, 2010-2014



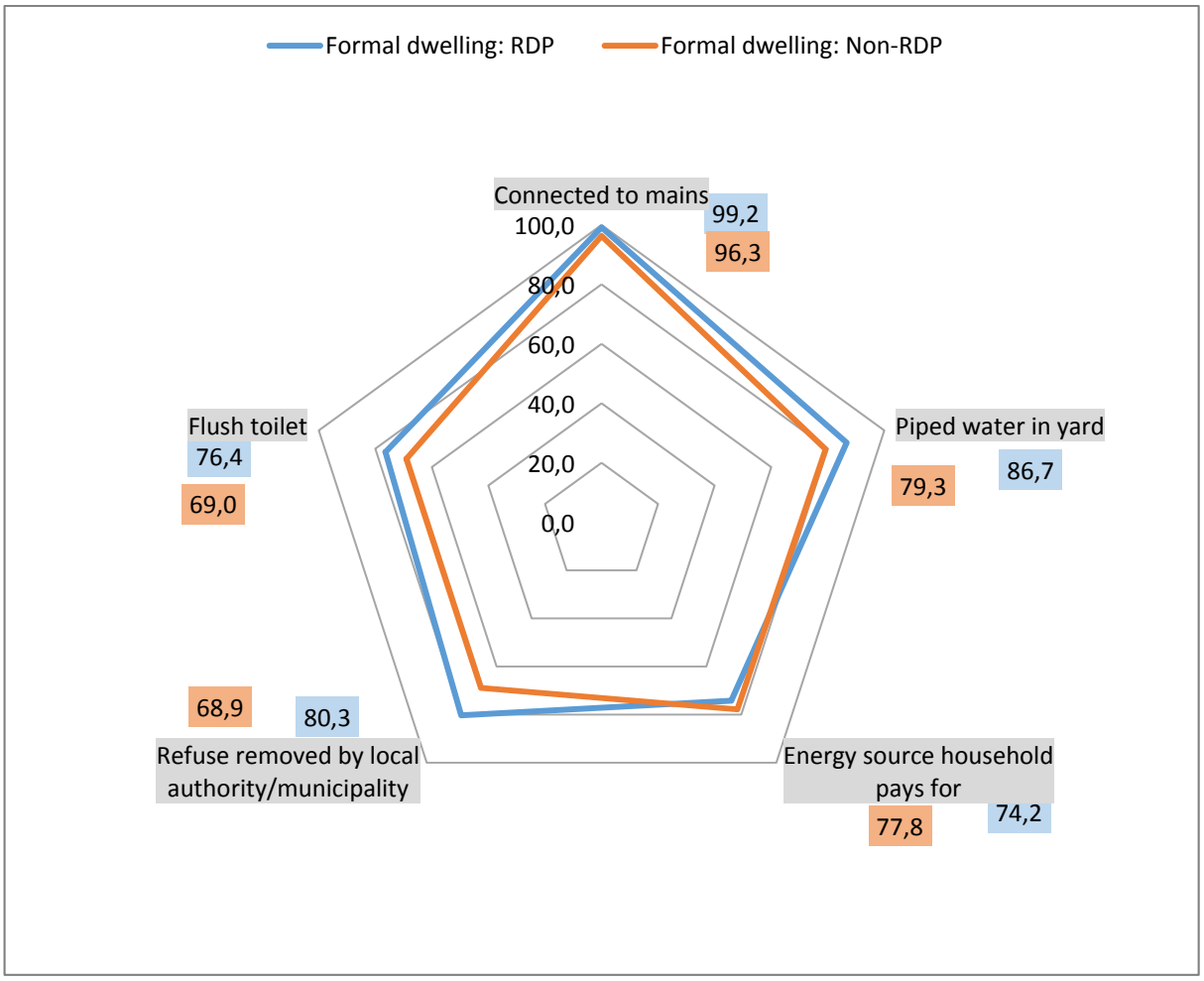
	RDP	Non RDP	SA	RDP	Non RDP	SA	RDP	Non RDP	SA	RDP	Non RDP	SA	RDP	Non RDP	SA
	2010			2011			2012			2013			2014		
Experiences hunger problems	16,2	8,4	10,2	17,3	7,5	9,4	15,0	7,8	9,1	16,0	7,4	9,1	16,9	8,1	9,8
No hunger problem	83,8	91,6	89,8	82,7	92,5	90,6	85,0	92,2	90,9	84,0	92,6	90,9	83,1	91,9	90,2

Source: GHS 2010-2014

According to Figure 11.10 households living in RDP houses are more likely to experience problems with hunger than households who do not live in RDP housing. The percentage of households in South Africa (10%) who experience hunger has remained stubbornly at the same proportions when one compares 2010 and 2014, however households in RDP housing showed a slight increase from roughly 16% in 2010 to nearly 17% in 2014.

11.4 Access to basic services

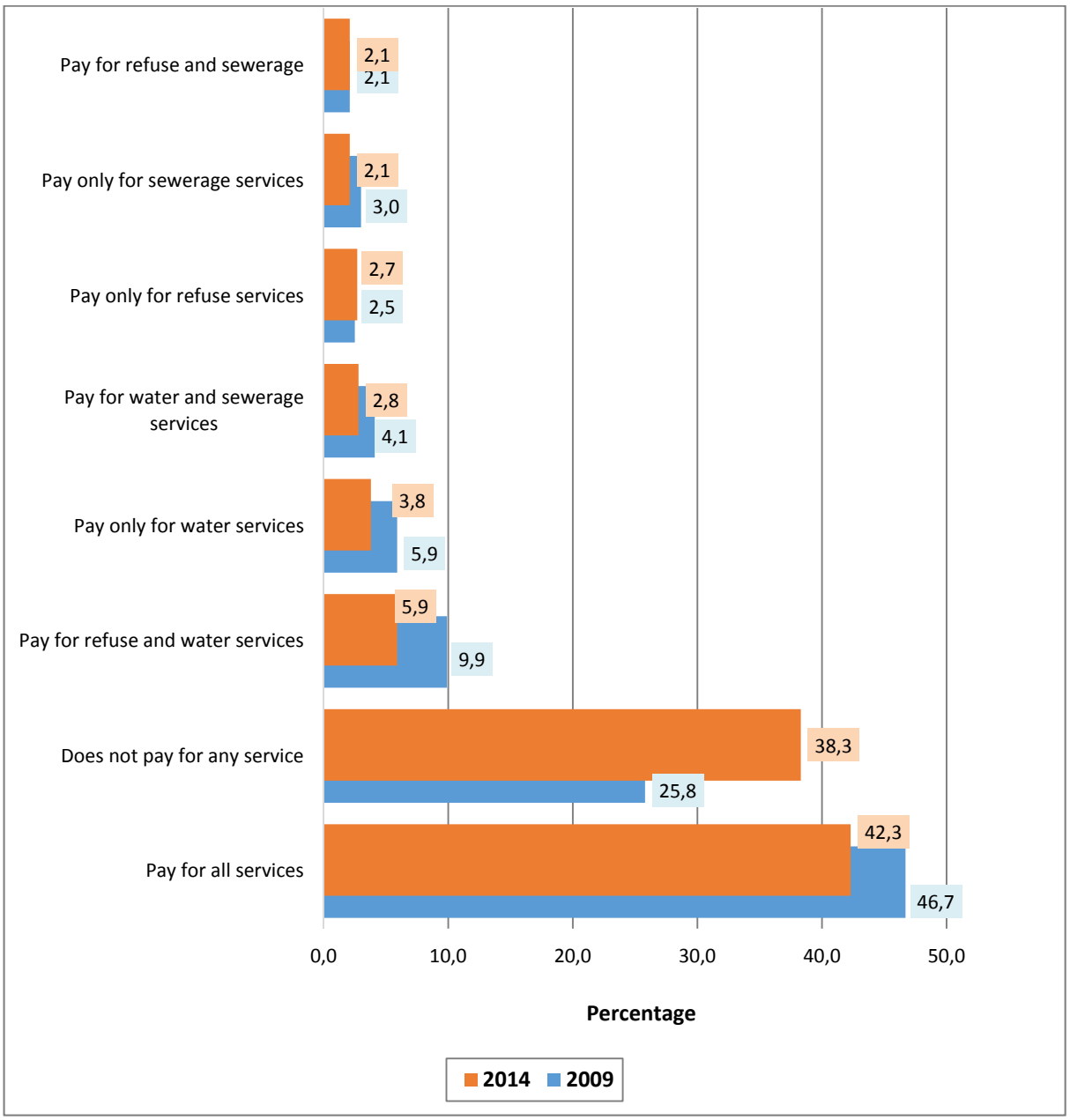
Figure 11.11: Percentage of households living in RDP/subsidised and non-RDP dwellings by services accessed, 2014



Source: GHS 2014

Households living in RDP/subsidised dwellings were more likely than households living in non-RDP dwellings to have access to services, as shown in Figure 11.11. The connection to mains (99,2%) was nearly universal for households living in RDP/subsidised dwellings, with households living in non-RDP formal dwellings following closely behind (96,3%). Nearly 86,7% of households living in RDP/subsidised dwellings had access to piped water in the yard compared to 79,3% of households living in non-RDP dwellings. Similar trends were observed for other services such as a connection to a flush toilet and refuse removal. Although households living in RDP/subsidised dwellings had greater access to services than households living in non-RDP dwellings, the latter were more likely to pay for their connection to an energy source such as electricity than the former.

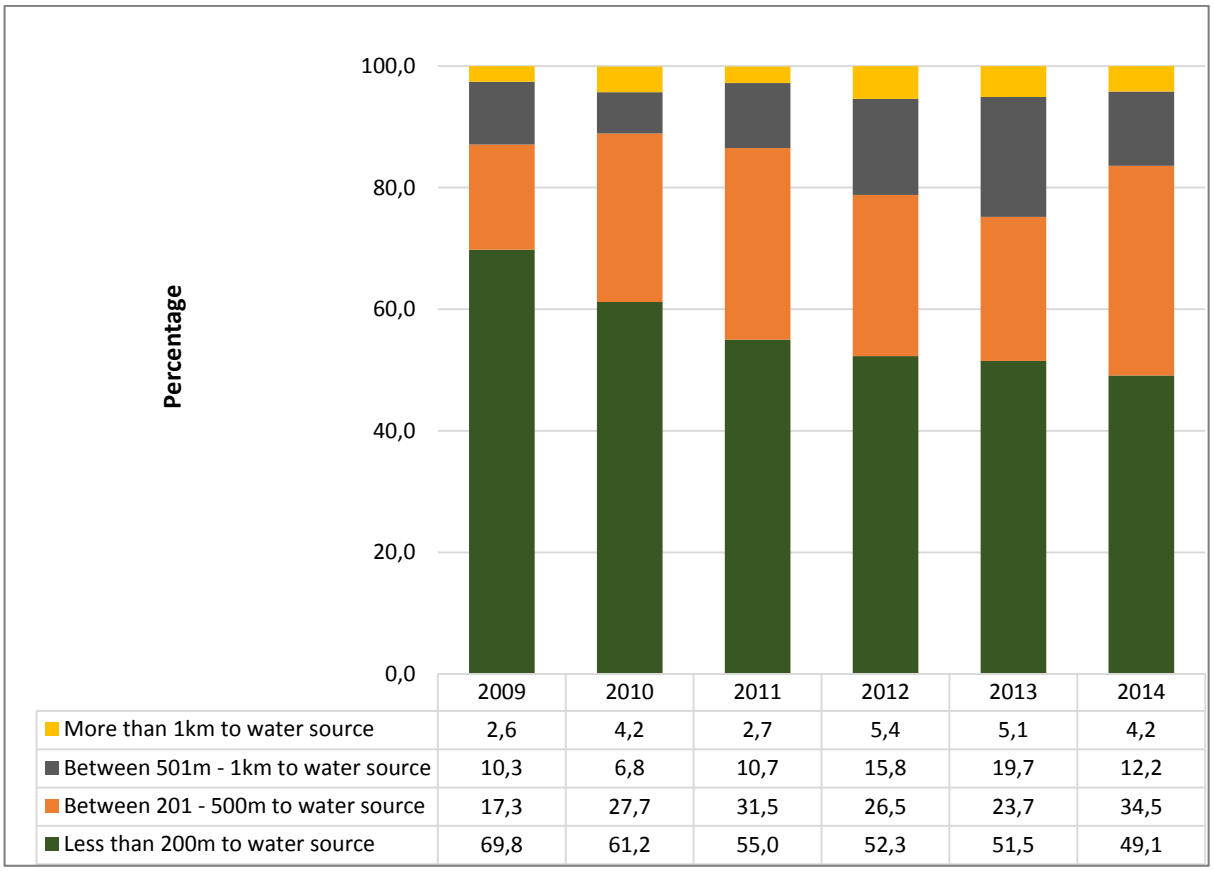
Figure 11.12: Percentage of households in formal RDP/subsidised dwellings by payment of basic services, 2009 and 2014



Source: GHS 2009 and 2014

Figure 11.12 shows that the percentage of households living in RDP/subsidised dwellings that reported to be paying for all basic services (water, sewerage and refuse removal) has decreased from 46,7% in 2009 to 42,3% in 2014. The percentage of households in RDP/subsidised dwellings that were paying for refuse only has decreased by only 0,2 percentage points between 2009 and 2014 (from 2,5% to 2,7% in 2014). Payment for only sewerage has decreased from 3% in 2009 to 2,1% in 2014, whereas payment for only water has decreased from 5,9% in 2009 to 3,8% in 2014. The percentage of households in RDP/subsidised dwellings that do not pay for any of these basic services has increased from 25,8% in 2009 to 38,3% in 2014.

Figure 11.13: Percentage of households living in RDP/subsidised dwellings by distance to water source, 2009–2014



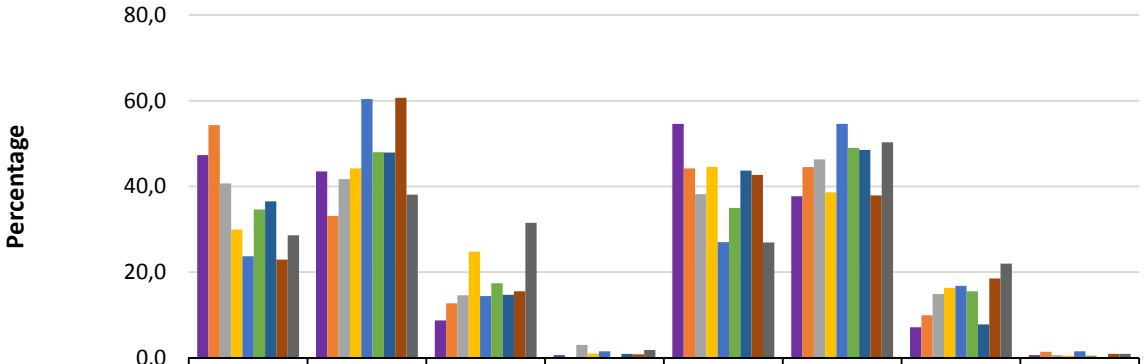
	2009	2010	2011	2012	2013	2014
More than 1km to water source	2,6	4,2	2,7	5,4	5,1	4,2
Between 501m - 1km to water source	10,3	6,8	10,7	15,8	19,7	12,2
Between 201 - 500m to water source	17,3	27,7	31,5	26,5	23,7	34,5
Less than 200m to water source	69,8	61,2	55,0	52,3	51,5	49,1

Source: GHS 2009-2014

The figure shows that the majority of households living in RDP/subsidised dwellings that reported to have access to water outside the yard have indicated that they needed to travel less than 200 m to get to their water source, whereas only 4,2% said that they needed to travel more than 1 km to get to their water source.

The percentage of households in RDP/subsidised dwellings that travelled more than 1 km to get to the water source has increased from 2,6% in 2009 to 4,2% in 2014, and the percentage of those who travelled more than 500 metres, but less than a kilometre increased from 10,3% to 12,2% during the same time period.

Figure 11.14: Percentage of households living in RDP/subsidised dwellings by the distance they travel to access the nearest health facility, 2009 and 2014



	2009				2014			
	Less than 15 minutes	15 - 29 minutes	30 - 89 minutes	90 minutes and more	Less than 15 minutes	15 - 29 minutes	30 - 89 minutes	90 minutes and more
Western Cape	47,3	43,5	8,7	0,6	54,6	37,7	7,1	0,6
Eastern Cape	54,3	33,1	12,7	0,0	44,2	44,5	9,9	1,4
Northern Cape	40,7	41,7	14,6	3,0	38,2	46,3	14,9	0,6
Free State	29,9	44,2	24,8	1,0	44,6	38,6	16,3	0,5
KwaZulu-Natal	23,7	60,4	14,4	1,5	27,0	54,6	16,8	1,5
North West	34,6	48,0	17,4	0,0	35,0	49,0	15,5	0,5
Gauteng	36,5	47,9	14,7	0,9	43,7	48,5	7,8	0,0
Mpumalanga	22,9	60,7	15,5	0,8	42,7	37,9	18,5	0,9
Limpopo	28,6	38,1	31,5	1,8	26,9	50,3	22,0	0,9

Source: GHS 2009 and 2014

The figure shows the percentage of households living in RDP/subsidised dwellings by the distance they needed to travel to access the nearest health facility. Most RDP/subsidised housing beneficiaries in all provinces travelled less than 30 minutes to access the nearest health facility. In 2014, RDP/subsidised housing beneficiaries in Limpopo and Mpumalanga were more likely to travel long distances to get to their nearest health facility than residents in all the other provinces (22% and 18,5%, respectively).

11.5 Summary and conclusion

The rate of housing provisioning of RDP/state-subsidised dwellings has surpassed that of the private sector between 2009 and 2014, given that the proportion of RDP/state-subsidised dwellings of all formal stock has increased during that period from 16,8% to 19,1%. In 2014, households in Limpopo were the least likely to live in a RDP/subsidised housing, as only 15% of formal dwellings were RDP/subsidised dwellings. Of all female-headed households who lived in formal dwellings, 22% lived in RDP housing. The provinces in which female-headed households living in formal dwellings were the most likely to live in an RDP/state-subsidised house, were Free State (41%) and Western Cape (32,1%). Free State had the largest proportion of elderly-headed households living in RDP housing. Approximately a third of all elderly-headed households that lived in formal dwellings found themselves in RDP housing.

Households living in formal RDP dwellings were more likely than those living in non-RDP formal dwellings to have access to services. For example, nearly 87% of households living in RDP dwellings had access to piped water in their yards compared to only approximately 80% of those living in non-RDP formal dwellings. The percentage of households living in formal RDP houses who paid for all basic services decreased from 47% in 2009 to 42% in 2014. Those that do not pay for any basic services increased from 26% in 2009 to 38% in 2014. In 2014, households living in formal non-RDP structures were more likely to be satisfied with the condition of their dwelling (89%) than households living in RDP formal structures (83%). More than three-quarters of households living in RDP/state-subsidised houses used their house as security to finance improvements, while 18% used it as collateral to establish a business.

A total of 47% of household heads living in formal, non-RDP dwellings, as opposed to 24% of household heads living in RDP/subsidised formal houses, had a highest level of education of grade 12 or higher in 2014. Furthermore, three-quarters of non-RDP/state-subsidised dwellings had at least one employed household member compared with 71% of households who lived in RDP/state-subsidised dwellings. The quintile distribution of households living in RDP and non-RDP formal dwellings shows a clear distinction between the two groups in that more than 50% of the non-RDP formal dwelling inhabitants are from quintiles 4 and 5. In the case of RDP formal dwellings, more than 80% are in household income quintiles 1 to 3. In 2010, 16% of households living in RDP dwellings indicated that they experienced food security problems compared to 17% in 2014. Nationally, approximately a quarter of households living in RDP/state-subsidised housing lived in overcrowded conditions. In some provinces such as Gauteng and Western Cape approximately a third of RDP/state-subsidised housing dwellers were living under circumstances that can be described as overcrowded.

12. Informal housing

12.1 Introduction

The proliferation of informal settlements is usually symptomatic of rapid urbanisation, as well as the inability of local government to provide adequate access to housing to the newcomers. In this respect, South Africa is no exception and according to the discussion document that underpins the most recent work towards an integrated urban development framework (DCOG, 2014) many townships and informal settlements act as poverty traps. Growth of informal settlements not only occurs in metropolitan areas. When the BNG initiative was published, it was already evident that the greatest growth in informal dwellings was taking place in secondary cities (DOH, 2004).

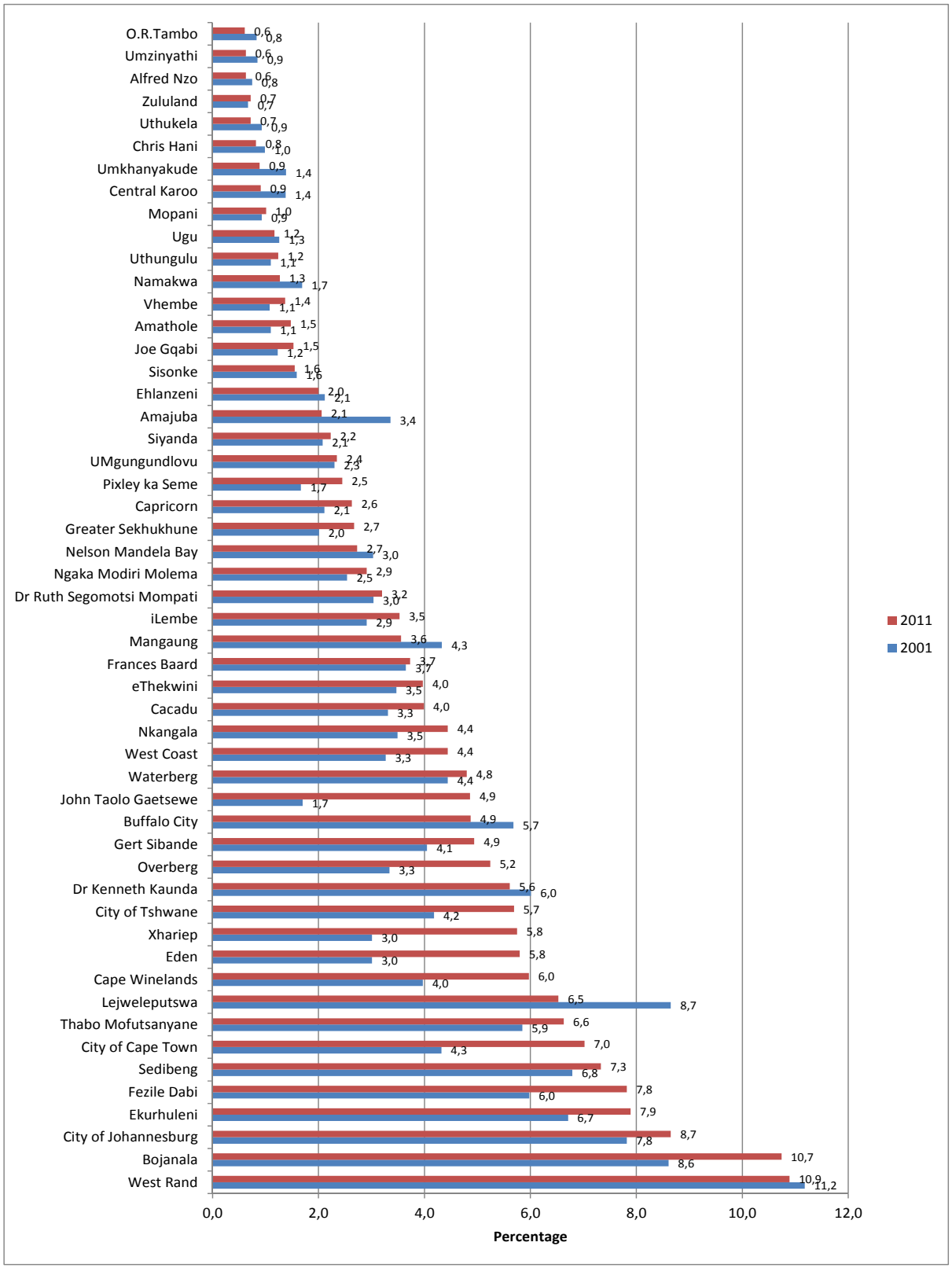
The first NUDF (DOH, 1996) regarded integrated planning, rebuilding and upgrading of informal settlements as central to the process of urban integration and undoing apartheid spatial forms. In the BNG, the progressive eradication of informal settlements is set as an overt target (DOH, 2004), with the phased in situ upgrading of existing settlements central to this plan. The draft Urban Development Framework of 2009 highlights that a more strategic approach with regard to informal settlements will be needed so that areas are developed in a proactive rather than a reactive manner (COGTA, 2009). It has also been pointed out that limited private and public resources that target centrally located rental, social and inner-city housing usually result in the rapid expansion of informal settlements and backyard formal dwellings. This in turn increases problems around adequate service delivery, resource allocation, integration and the implementation of local regulations (DHS, 2014; DCOG, 2014).

This section of the report will take a closer look at what happened over time in the informal housing sector, using census and GHS data. Both these data sources distinguish between informal dwellings in the backyard and informal dwellings that form part of settlements.

12.2 District council and municipal level overview of informal dwellings

Figure 12.1 on the next page shows that the district councils with the highest percentages of households living in informal dwellings in backyards were predominantly from Gauteng, Free State and Western Cape. District councils that were ranked the highest in both 2001 and 2011 were West Rand, Bojanala and the City of Johannesburg. During this time the most significant reduction in backyard informal dwellings was achieved in Lejweleputswa (Free State), whilst Bojanala (North West) achieved the most significant increase.

Figure 12.1: Percentage of households living in informal dwellings in the backyard per district council, 2001 and 2011



Source: Census 2001 and Census 2011

Table 12.1: Changes in the number of municipalities with informal dwellings in the backyard per province, 2001 and 2011

Province	Number of municipalities	Municipalities where more than 5% of dwellings are backyard informal dwellings		Average municipal rank based on % living in backyard informal dwellings	Provincial rank based on average municipal rank
		Number	Per cent		
KwaZulu-Natal	51	2	3,9	62	1
Eastern Cape	39	2	5,1	79	2
Limpopo	25	3	12,0	107	3
Northern Cape	27	1	3,7	110	4
Mpumalanga	18	5	27,8	151	5
Western Cape	25	11	44,0	153	6
North West	18	7	38,9	162	7
Free State	20	16	80,0	197	8
Gauteng	11	9	81,8	197	8
Total	**234**	**56**	**23,9**	**-**	**-**

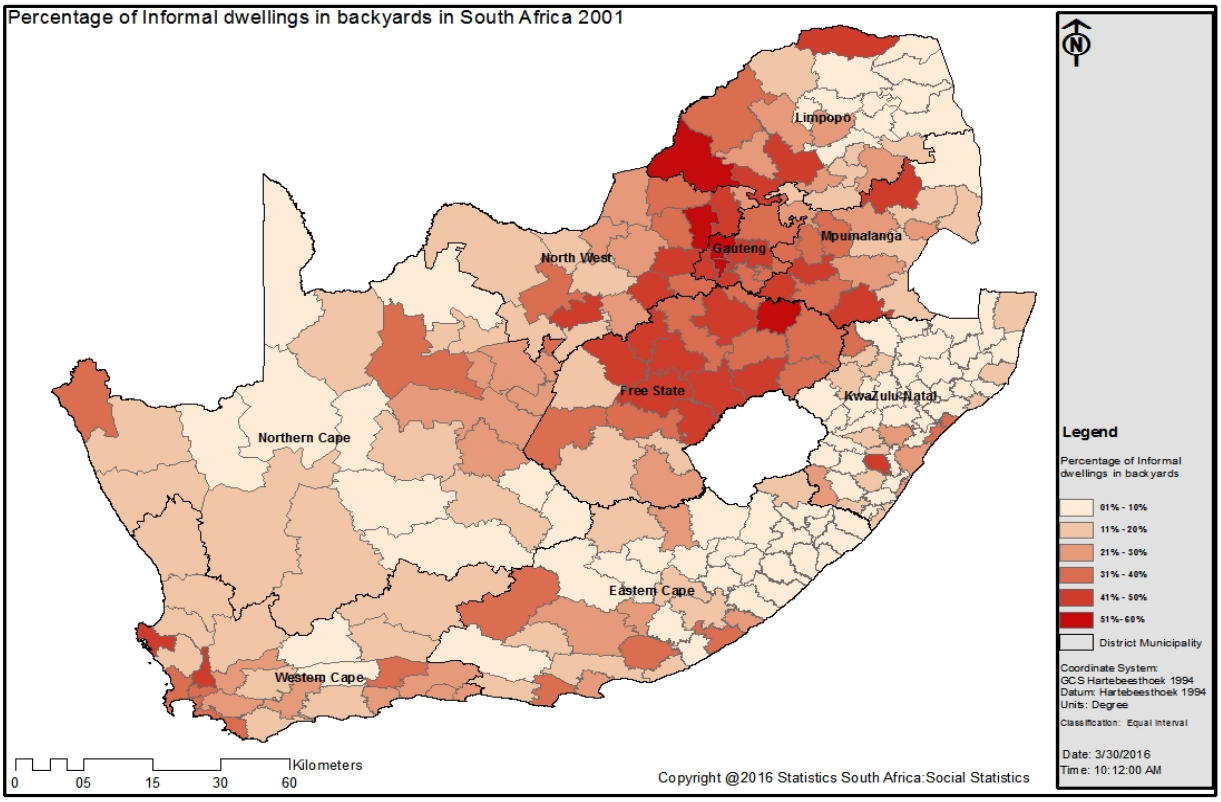
Source: Census 2001 and 2011

According to Table 12.1, the provinces with the biggest proportions of municipalities where more than five per cent of dwellings consist of backyard informal dwellings were Gauteng (81,8%) and Free State (80,0%). This indicator provides an idea of how widespread the problem of informal dwellings is across municipalities in a particular province. The third and fourth most widespread representation of backyard dwellings was found in Western Cape with 44% of municipalities affected and 38,9% of local municipalities in North West. The remainder of the provinces have more localised problems with informal dwellings in backyards, as relatively few of their local municipalities have more than 5% backyard informal dwellings in these provinces.

When it comes to the actual levels of the problem relative to all municipalities in the country, the heaviest loads are carried by Gauteng and Free State (average rank for municipalities in both provinces is 197[3]) and North West with an average rank of 162. Western Cape and Mpumalanga were close with average municipal ranking scores of 151 and 153, respectively.

[3] Each municipality in the country was ranked based on the percentage of dwellings in the municipality that are informal dwellings in the backyard. Ranks ranged from 1–253. A high rank is associated with a high percentage of informal dwellings in the backyard. These ranks were then averaged for all municipalities in a particular province to get a rank for the province based on what is happening in the municipalities in that province. These average ranks were then ranked again to be given an overall rank from 1–8. Rank 9 was not used given that Free State and Gauteng had the same average rank (they both received an overall rank of 8). A high rank means a high percentage of informal dwellings in backyards are present in a large number of municipalities in the province.

Map 12.1: Percentage distribution of informal dwellings in backyards by province, 2001 and 2011



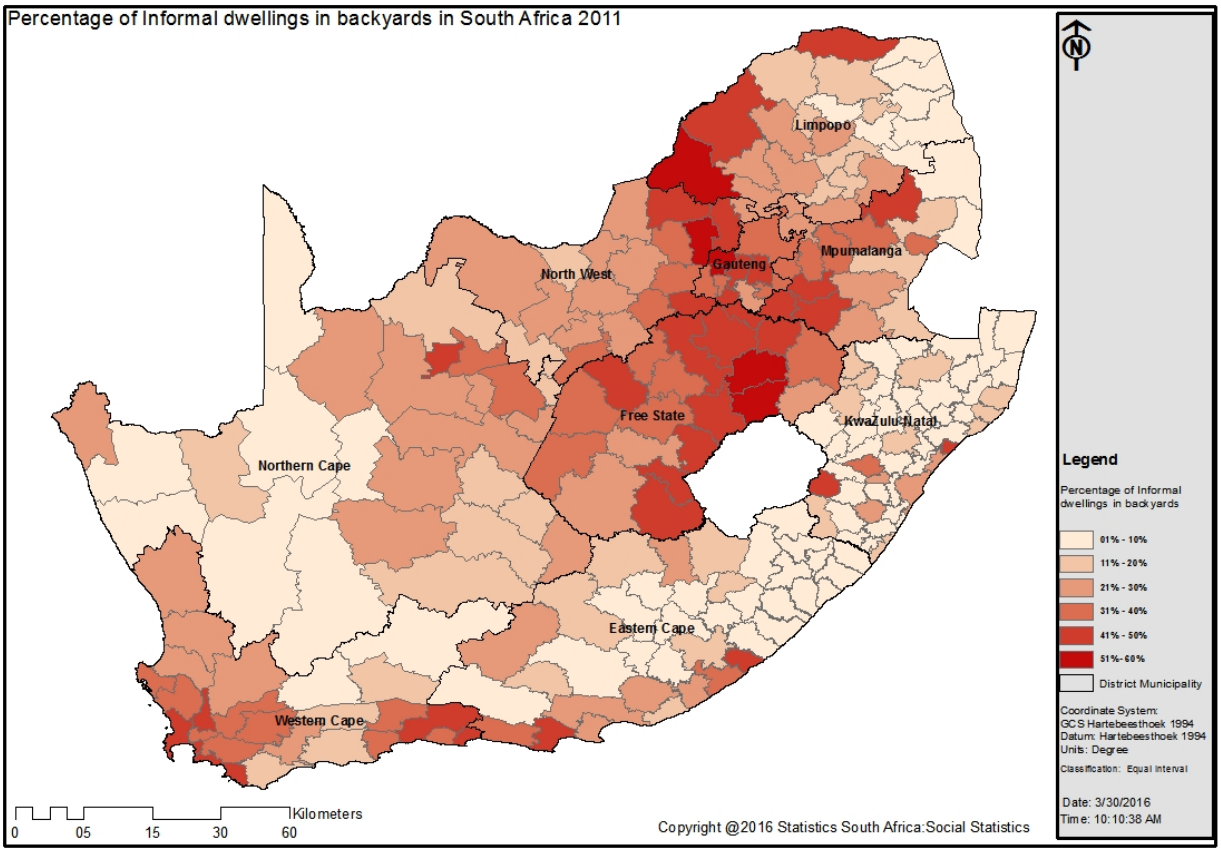


Table 12.2: Top and bottom 10 municipalities with the biggest and smallest percentage point change in informal dwellings in the backyard, 2001 and 2011

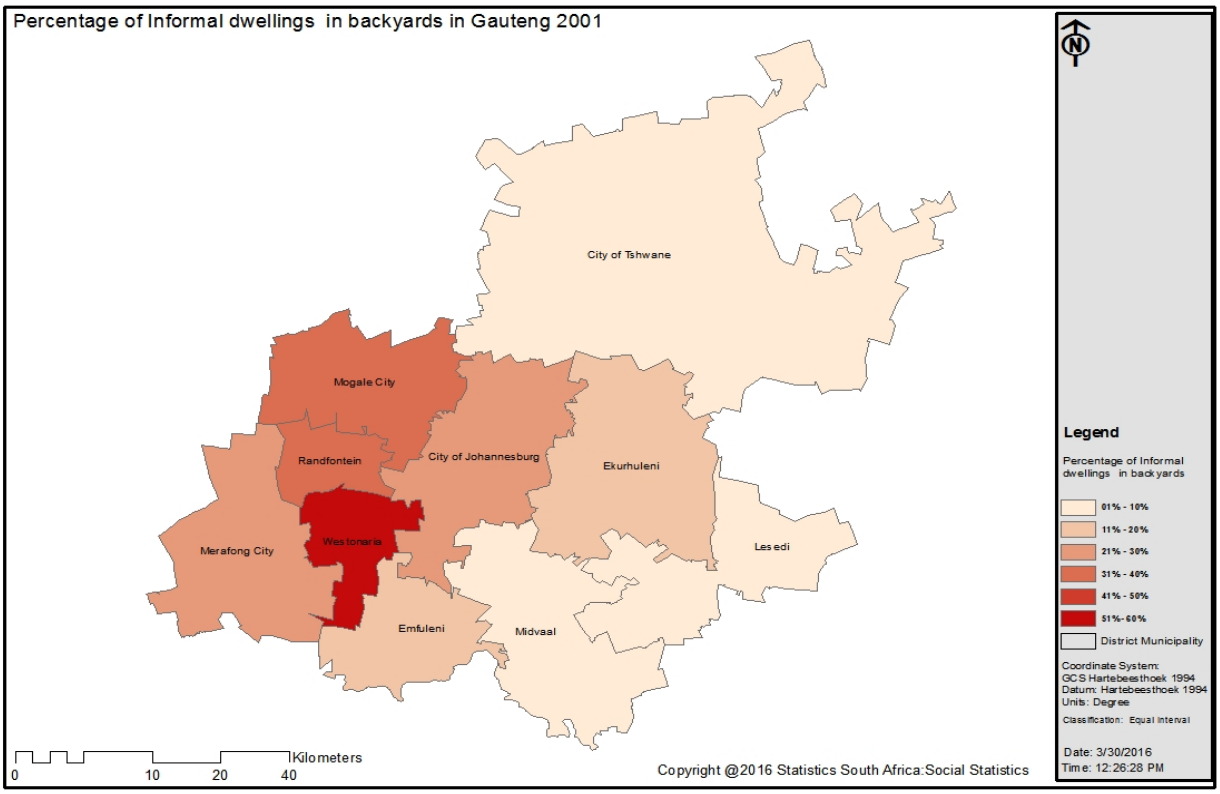
Municipality	Province	Households living in backyard informal dwellings (per cent)		% point change	Rank Top and bottom 10 municipalities with the biggest percentage point changes in informal dwellings in the backyard between 2001 and 2011
		2001	2011		
Top ten with biggest reduction between 2001 and 2011					
Westonaria	Gauteng	15,6	5,9	-9,7	1
Richmond	KwaZulu-Natal	7,5	0,6	-6,9	2
Mamusa	North West	8,2	4,0	-4,2	3
Merafong City	Gauteng	8,7	5,4	-3,4	4
Matjhabeng	Free State	9,6	6,6	-3,0	5
Mookgopong	Limpopo	6,5	3,5	-3,0	6
Naledi	North West	5,8	3,1	-2,7	7
Phokwane	Northern Cape	4,8	2,3	-2,6	8
Masilonyana	Free State	7,6	5,0	-2,6	9
Mafuba	Free State	10,3	7,8	-2,6	10
Top ten with biggest increase between 2001 and 2011					
Swartland	Western Cape	2,0	6,1	4,2	225
Mogale City	Gauteng	11,5	15,7	4,2	226
Tokologo	Free State	2,2	6,5	4,4	227
Great Kei	Eastern Cape	2,6	7,0	4,4	228
Mohokare	Free State	2,9	7,8	4,9	229
Naledi	Free State	2,0	8,6	6,7	230
Kwa Sani	KwaZulu-Natal	0,5	7,2	6,7	231
Bitou	Western Cape	2,6	9,4	6,8	232
Gamagara	Northern Cape	2,1	9,3	7,2	233
Nketoana	Free State	5,2	13,6	8,4	234

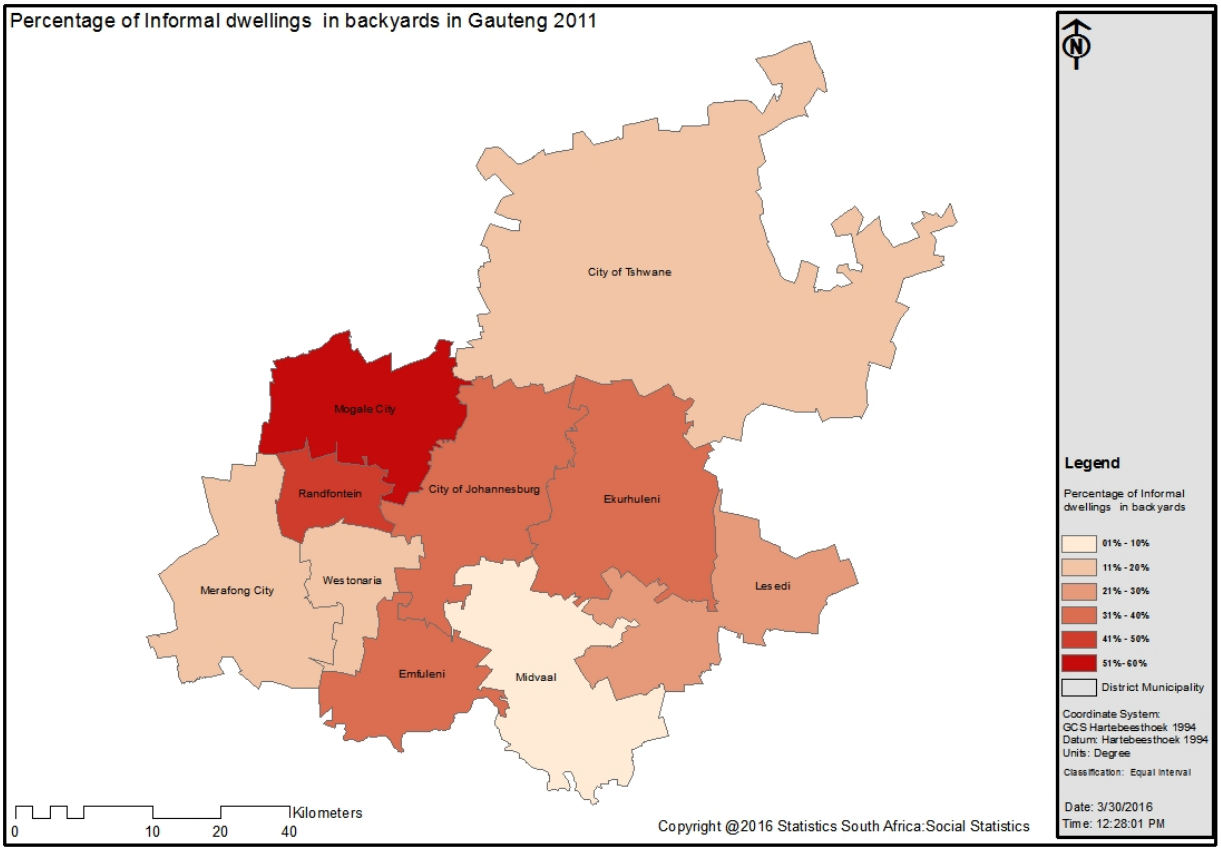
Source: Census 2001 and Census 2011

Changes that took place between 2001 and 2011 at municipal level in the percentage of informal dwellings in the backyard are summarised in Table 12.2. The table shows that amongst the top ten municipalities where there has been an increase in these kinds of dwellings, the increases ranged from Swartland with a 4,2 percentage point increase to Nketoana in Free State with a 8,4 percentage point increase. Notably, Free State had four municipalities amongst the top ten with increases, followed by Western Cape with two.

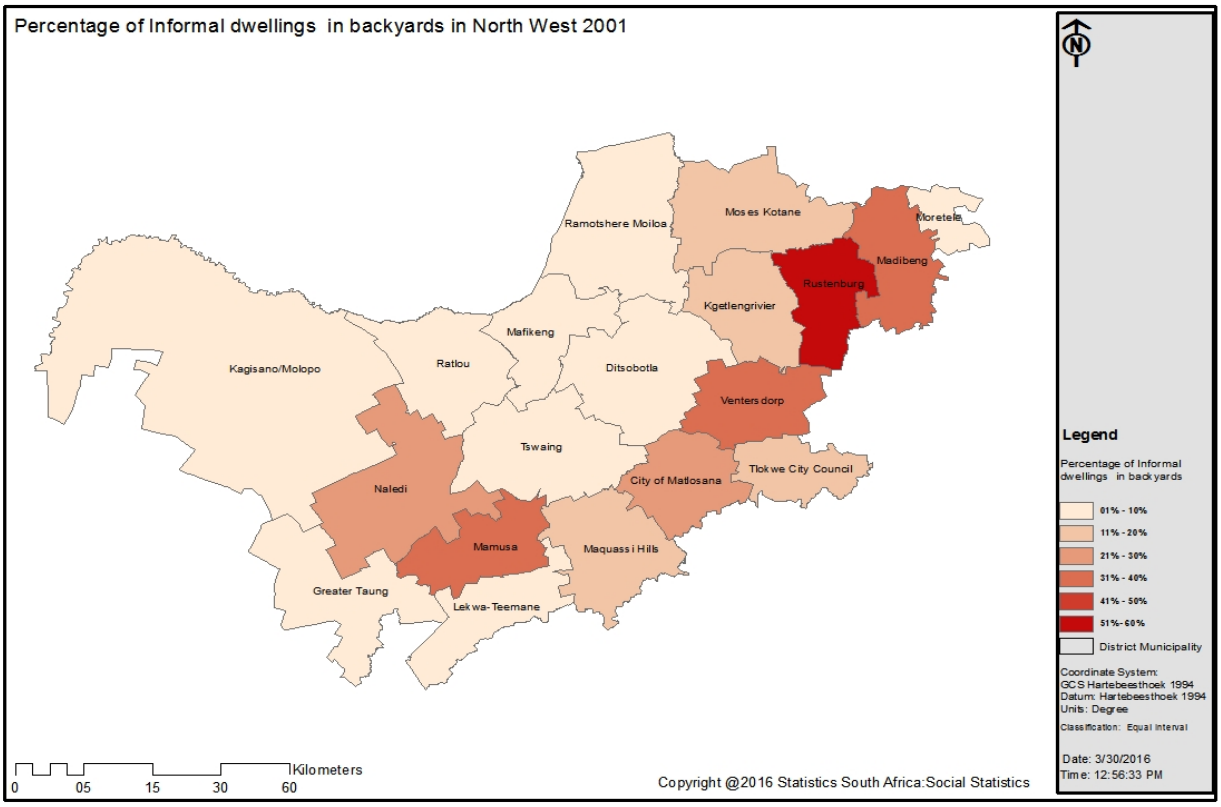
The most notable decreases were found in Westonaria in Gauteng, with a 9,7 percentage point decrease during the reference period, Richmond in KwaZulu-Natal (6,9 percentage point decrease), and Mamusa (4,2 percentage point decrease) and Merafong City (3,4 percentage point decrease) both in North West. The provinces with the most municipalities with decreases in the top ten were Free State (3) and Gauteng and North West (2 each). Most of the municipalities that experienced contraction in the percentage of backyard dwellings were areas that were affected by a reduction in either mining or manufacturing activities during the reference period. Thus, the decreases may have as much to do with better provisioning by the local municipality than it does with a reduction in economic opportunities and, per implication, demand for housing by migrant workers.

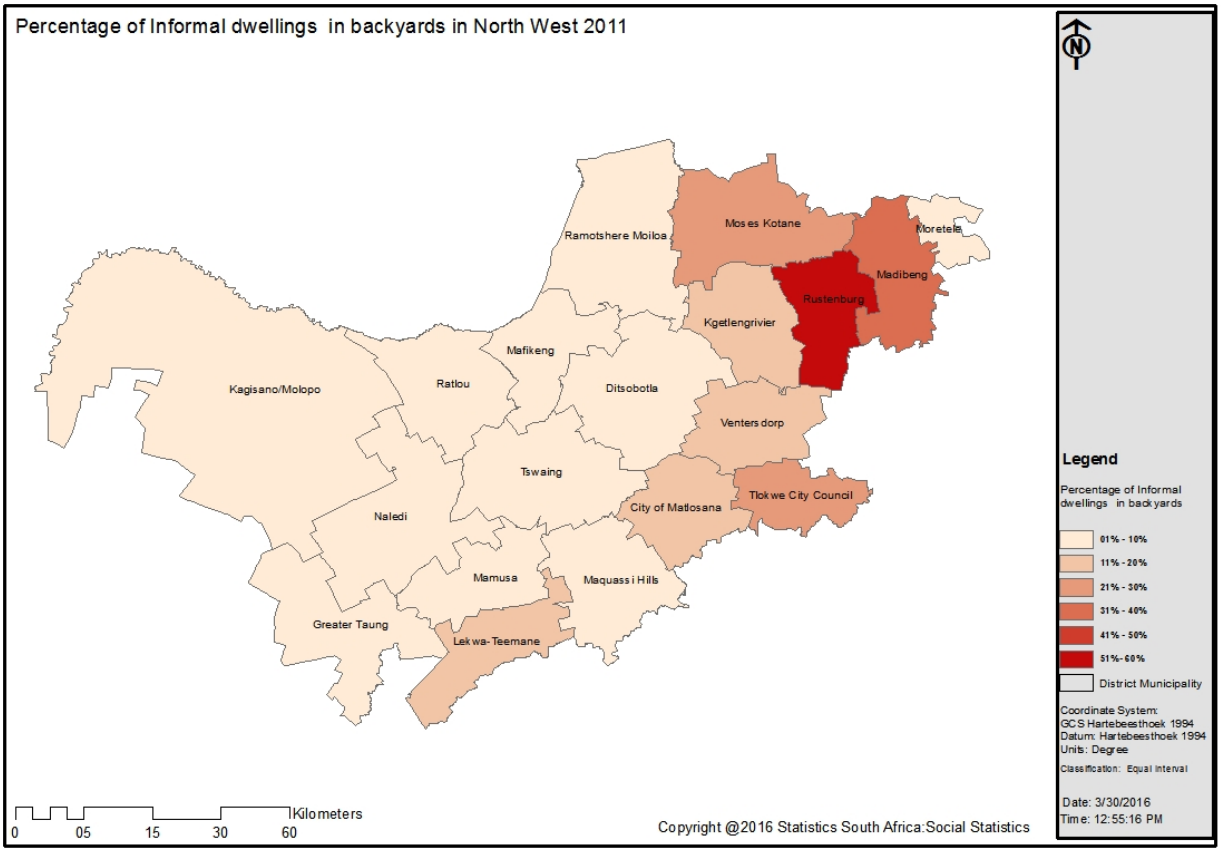
Map 12.2: Percentage distribution of informal dwellings in backyards per municipality in Gauteng, 2001 and 2011



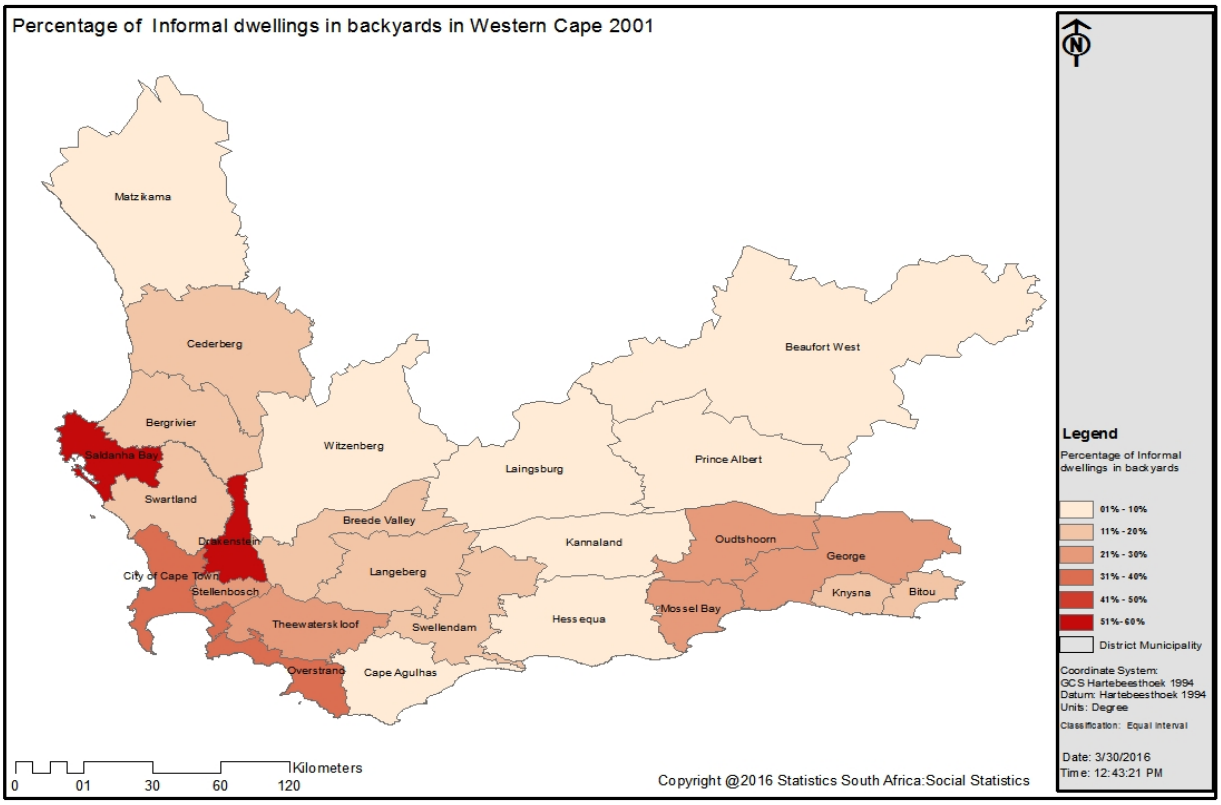


Map 12.3: Percentage distribution of informal dwellings in backyards per municipality in North West, 2001 and 2011





Map 12.4: Percentage distribution of informal dwellings in backyards per municipality in Western Cape, 2001 and 2011



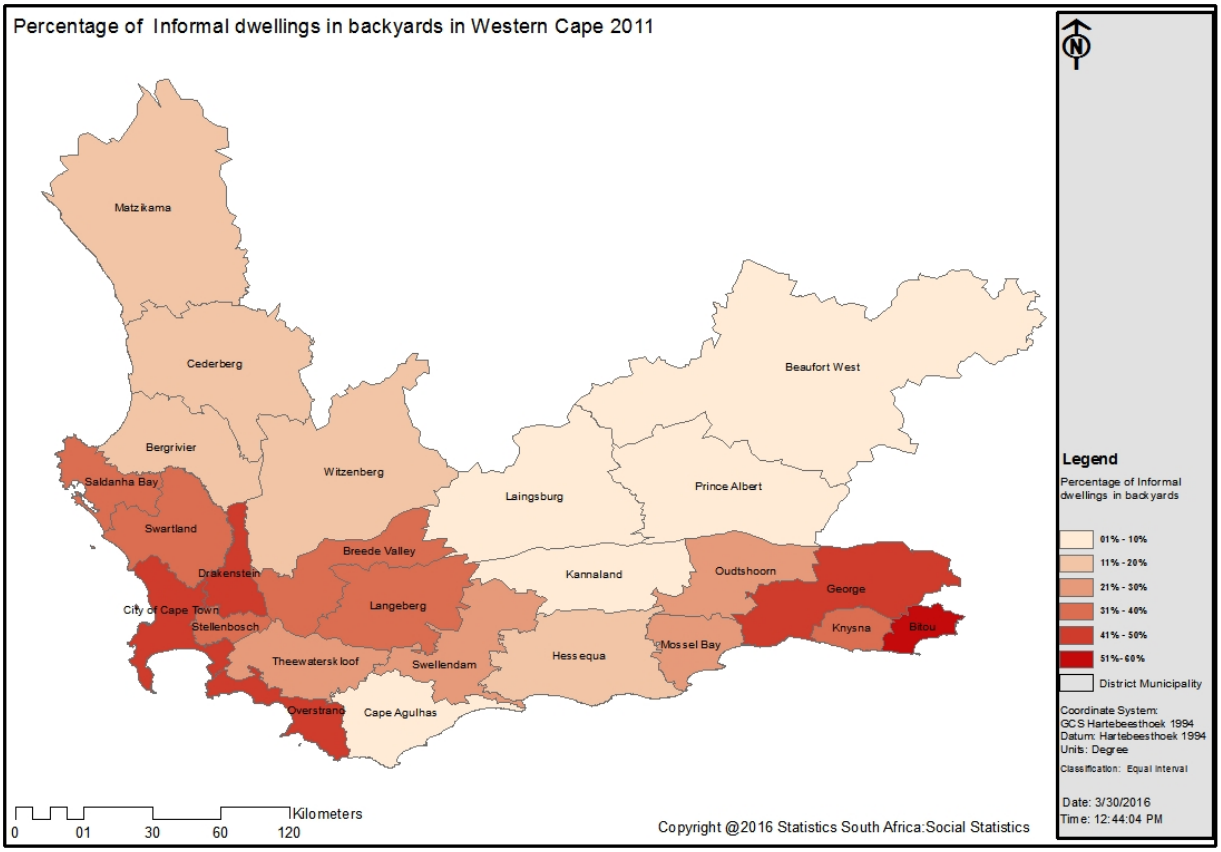
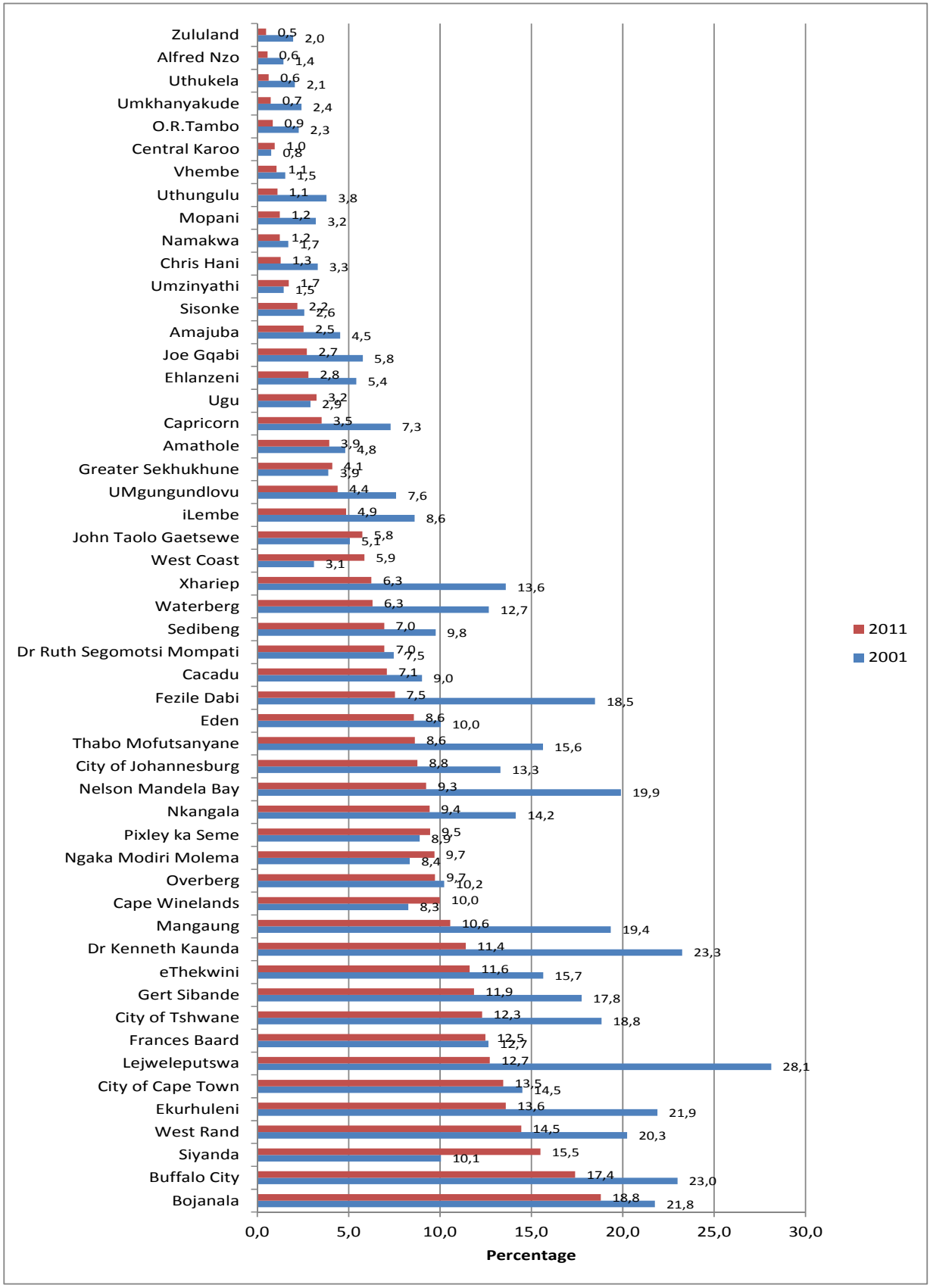


Figure 12.2: Percentage of households living in informal dwellings in informal settlements per district council, 2001 and 2011

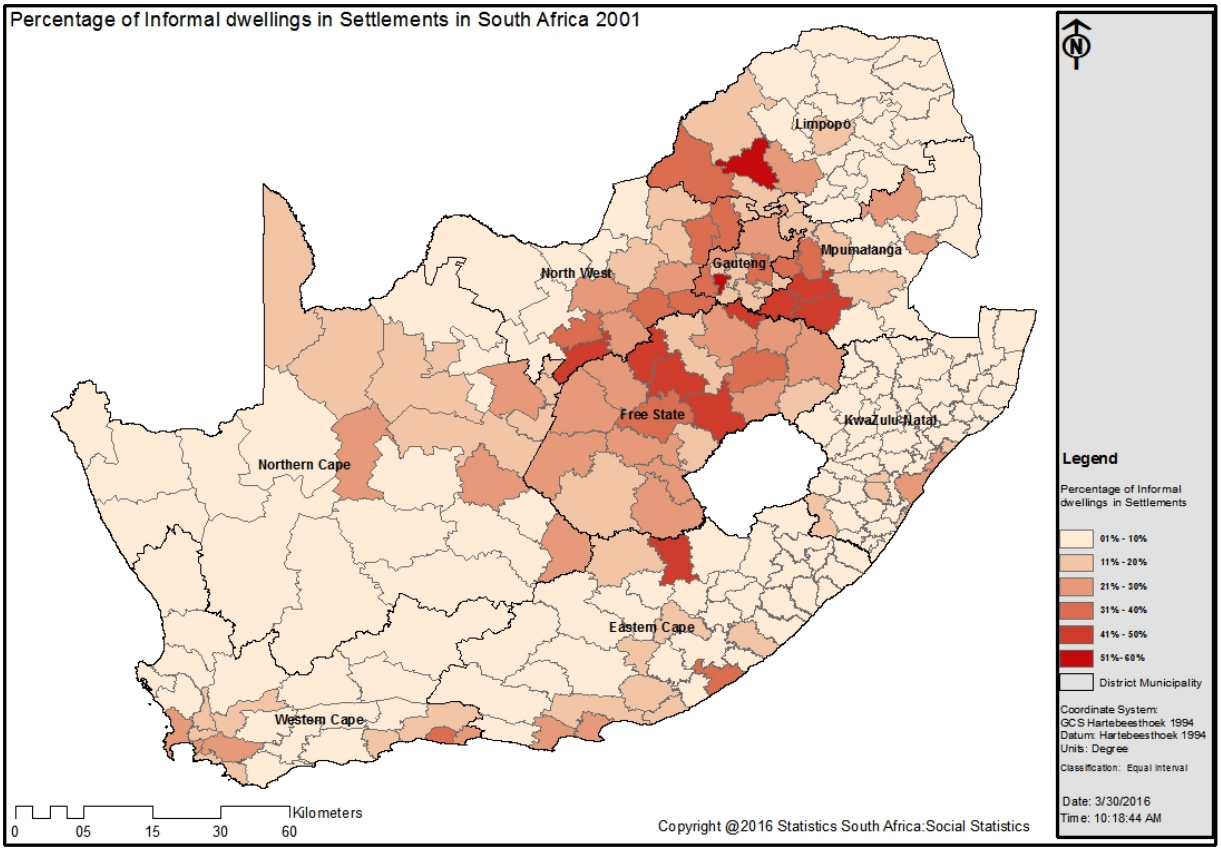


Source: Census 2001 and Census 2011

Figure 12.2 shows that the district councils with the highest percentages of households living in informal dwellings in settlements during 2011 were predominantly from Gauteng and Northern Cape. Most district councils experienced a decrease in the percentage of households living in informal dwellings between 2001 and 2011. Districts where there was an increase during the reference period include Siyanda in Northern Cape, Cape Winelands in Western Cape and Ngaka Modiri Molema in North West.

Maps 12.5 and 12.6 on the next page illustrates the general decrease of high percentage informal settlement areas in provinces such as Free State and North West and a simultaneous increase in Northern Cape along the mining belt. However, it also shows significant shifts within provinces i.e. areas where there have been a reduction between 2001 and 2011, were accompanied by shifts of relatively high informal settlement populations to neighbouring municipalities.

Map 12.5: Percentage distribution of informal dwellings in settlements per municipality, 2001 and 2011



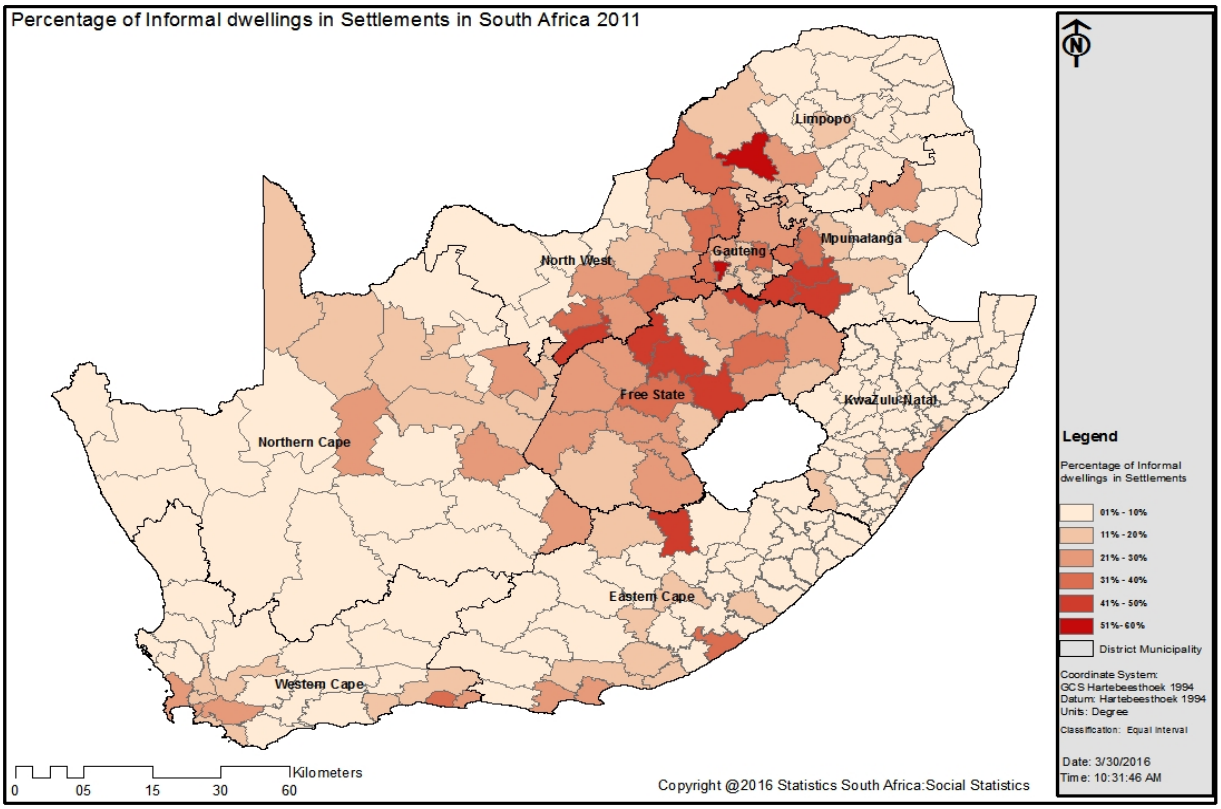


Table 12.3: Changes in the number of municipalities with informal dwellings in informal settlements per province, 2001 and 2011

Province	Number of municipalities	Municipalities where more than 10% of dwellings are informal dwellings in informal settlements		Average municipal rank based on % living in informal dwellings in informal settlements	Provincial rank based on average municipal rank	Municipalities with decreases of 10 percentage points or more in % of informal dwellings in informal settlements between 2001 and 2011		Municipalities with increases of 10 percentage points or more between 2001 and 2011	
		Number	Per cent			Number	Per cent	Number	Per cent
KwaZulu-Natal	51	2	3,9	63	1	0	0,0	0	0,0
Eastern Cape	39	3	7,7	84	2	2	5,1	0	0,0
Limpopo	25	1	4,0	93	3	2	8,0	0	0,0
Northern Cape	27	9	33,3	141	4	0	0,0	2	7,4
Western Cape	25	8	32,0	141	4	0	0,0	0	0,0
Mpumalanga	18	7	38,9	149	5	4	22,2	0	0,0
Free State	20	8	40,0	166	6	8	40,0	0	0,0
North West	18	12	66,7	184	7	5	27,8	1	5,6
Gauteng	11	6	54,5	186	8	0	0,0	0	0,0
Total	234	56	23,9	-	-	21	9,0	3	1,3

Source: Census 2001 and Census 2011

The municipal profiles related to informal dwellings in settlements point to similar trends, with Gauteng, North West and Free State surpassing the other provinces in terms of the percentage of municipalities in those provinces with more than 10% of dwellings that are informal dwellings in informal settlements (Table 12.3). The provinces with the biggest proportions of municipalities where more than 10% of dwellings consist of informal dwellings in informal settlements were North West (66,7%) and Gauteng (54,5%). This measure gives an indication of extent to which the problem is widespread across a number of municipalities in the province or isolated in just a few. The third and fourth most widespread representation of informal dwellings in informal settlements was found in Free State with 40% of municipalities affected, and 38,9% of local municipalities in Mpumalanga. Approximately a third of municipalities in Western Cape and Northern Cape have more than 10% of their residents living in informal settlements. Limpopo, Eastern Cape and KwaZulu-Natal have less than 10% of their municipalities that are dealing with expanded problems related to informal settlements.

When it comes to the actual levels of the problem relative to all municipalities in the country, the heaviest loads are carried by Gauteng and North West (average rank for municipalities in these provinces is 186 and 184, respectively[4]) and Free State with an average rank of 166. Northern Cape, Western Cape and Mpumalanga were close with average municipal ranking scores ranging from 141 to 149. The provinces where the most significant change has taken place between 2001 and 2011 (10 percentage point reduction or more) were Free State, where 40% of their municipalities achieved this, North West (27,8%) and Mpumalanga (22,2%).

Table 12.4: Top and bottom 10 municipalities with the biggest and smallest percentage point change in informal dwellings in informal settlements, 2001 and 2011

Municipality	Province	Households living in informal dwellings in informal settlements (per cent)		% point change	Rank Top and bottom 10 municipalities with the biggest percentage point changes in informal dwellings in informal settlements between 2001 and 2011
		2001	2011		
Top ten with biggest reduction between 2001 and 2011					
Modimolle	Limpopo	40,6	8,5	-32,2	1
Metsimaholo	Free State	30,5	7,1	-23,4	2
Maletswai	Eastern Cape	27,6	9,8	-17,9	3
Matjhabeng	Free State	31,0	13,1	-17,8	4
Nala	Free State	30,5	15,3	-15,2	5
City of Matlosana	North West	25,0	10,5	-14,6	6
Setsoto	Free State	33,0	19,2	-13,7	7
Victor Khanye	Mpumalanga	24,5	11,0	-13,6	8
Lekwa Teemane	North West	27,2	13,9	-13,3	9
Naledi	Free State	18,9	5,7	-13,2	10
Top ten with biggest increase between 2001 and 2011					
Stellenbosch	Western Cape	11,9	17,3	5,4	225
Cederberg	Western Cape	2,1	7,8	5,7	226
Breede Valley	Western Cape	8,7	14,5	5,8	227
//Khara Hais	Northern Cape	13,5	19,9	6,4	228
Kgetleng Rivier	North West	13,5	20,3	6,8	229
Cape Agulhas	Western Cape	4,3	11,2	6,9	230
Siyanguma	Northern Cape	12,5	21,8	9,3	231
Naledi	North West	2,3	13,0	10,7	232
Tsantsabane	Northern Cape	10,7	22,3	11,6	233
!Kheis	Northern Cape	14,0	30,9	16,8	234

Source: Census 2001 and Census 2011

[4] Each municipality in the country was ranked based on the percentage of dwellings in the municipality that are informal dwellings in settlements. Ranks ranged from 1–253. A high rank is associated with a high percentage of informal dwellings in settlements. These ranks were then averaged for all municipalities in a particular province to get a rank for the province based on what is happening in the municipalities in that province. These average ranks were then ranked again from 1–8. Rank 9 was not used as Northern Cape and Western Cape had the same average rank and they both received an overall rank of 4. A high rank means a high percentage of informal dwellings in settlements are present in a large number of municipalities in the province.

Two of the three local municipalities that have realised the biggest percentage point increases in households living in informal settlements were in Northern Cape: !Kheis (16,8 percentage point increase) and Tsantsabane (11,6 percentage points). Naledi in North West came in third position.

The biggest contractions during the period 2001 and 2011 were found in Modimolle (32,2 percentage point decrease), Metsimaholo (23,4 percentage point decrease). Maletswai and Matjhabeng followed with decreases of approximately 17,8 percentage points.

Table 12.5: Odds ratios for mineworkers living in informal dwellings per province, 2001 and 2011

Province	2001 Odds ratio	95% Wald Confidence limits		2011 Odds ratio	95% Wald Confidence limits	
All kinds of informal dwellings						
South Africa	**1,380**	**1,374**	**1,386**	**1,160**	**1,154**	**1,166**
Western Cape	0,809	0,765	0,856	0,750	0,709	0,794
Eastern Cape	0,610	0,568	0,655	0,642	0,576	0,716
Northern Cape	0,890	0,860	0,921	0,787	0,758	0,817
Free State	1,438	1,420	1,456	0,967	0,945	0,989
KwaZulu-Natal	0,684	0,650	0,720	0,639	0,598	0,682
North West	1,275	1,265	1,285	1,314	1,303	1,325
Gauteng	1,350	1,338	1,363	0,836	0,826	0,846
Mpumalanga	1,201	1,184	1,218	0,970	0,955	0,986
Limpopo	1,375	1,349	1,400	1,404	1,378	1,430
Informal dwellings in settlements						
South Africa	**1,320**	**1,313**	**1,327**	**1,114**	**1,107**	**1,121**
Western Cape	0,817	0,766	0,873	0,809	0,757	0,865
Eastern Cape	0,613	0,566	0,663	0,681	0,603	0,769
Northern Cape	0,873	0,840	0,908	0,774	0,741	0,809
Free State	1,328	1,309	1,347	0,947	0,920	0,974
KwaZulu-Natal	0,702	0,664	0,742	0,591	0,543	0,643
North West	1,196	1,186	1,207	1,135	1,123	1,146
Gauteng	1,352	1,338	1,366	0,923	0,909	0,936
Mpumalanga	1,183	1,165	1,201	0,926	0,908	0,944
Limpopo	1,207	1,179	1,234	1,375	1,344	1,408
Informal dwellings in backyards						
South Africa	**1,412**	**1,401**	**1,423**	**1,194**	**1,185**	**1,203**
Western Cape	0,811	0,730	0,902	0,690	0,625	0,762
Eastern Cape	0,639	0,548	0,745	0,561	0,442	0,712
Northern Cape	0,954	0,893	1,019	0,852	0,796	0,913
Free State	1,537	1,506	1,568	1,005	0,971	1,040
KwaZulu-Natal	0,641	0,569	0,721	0,767	0,691	0,851
North West	1,359	1,341	1,376	1,497	1,480	1,515
Gauteng	1,218	1,198	1,238	0,743	0,728	0,758
Mpumalanga	1,210	1,177	1,244	1,063	1,036	1,090
Limpopo	1,726	1,677	1,777	1,388	1,351	1,427

Source: Census 2001 and 2011

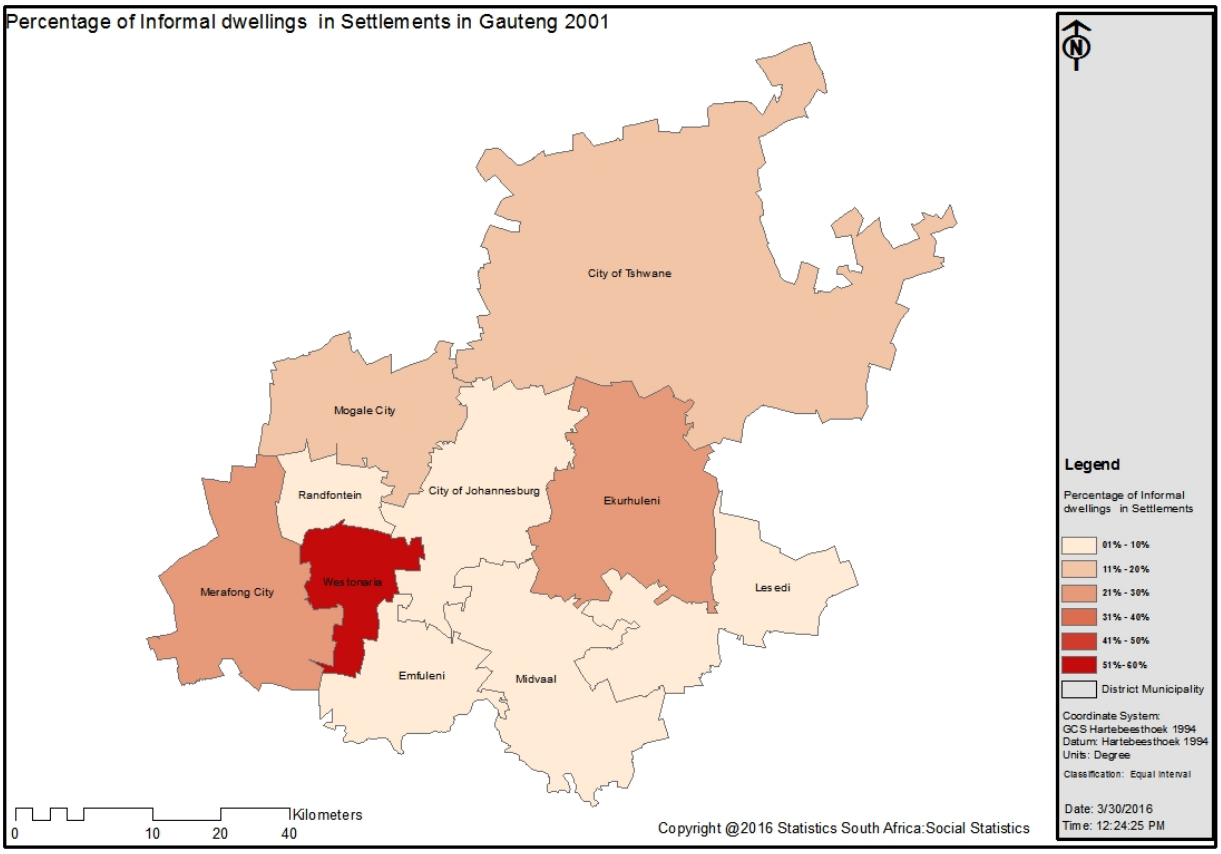
Tables 12.5 and 12.6 contain the odds ratios for mineworkers and farmworkers. Its shows that the odds of a mineworker living in any kind of informal dwelling in the country was 1,4 times higher than that of employed individuals working in other sectors in 2001. By 2011, those odds have decreased closer to parity to 1,160. Provinces where the odds were still higher for a mineworker than a worker in another sector to live in an informal dwelling in 2011 were North West (OR:1,314) and Limpopo (OR:1,404). In the case of Limpopo, these workers find themselves in informal settlements (OR:1,375) as well as backyard informal dwellings (OR:1,388) whereas they are more likely to live in backyard informal dwellings in North West (OR:1,497). All these odds ratios are statistically significant at a 95% confidence level. Farmworkers are still less likely than other workers to live in informal dwellings. However, between 2001 and 2011, the odds of their living in informal settlements have increased. Farmworkers in Gauteng (OR:1,610) and Limpopo (OR:1,279) were the most likely to live in informal dwellings of any type in 2011. However, they are more likely to be found in settlements in both provinces than in backyard informal dwellings. The odds of living in a settlement were 1,777 in Gauteng and in 1,666 in Limpopo, whilst the odds of living in a backyard shack were 1,230 for Gauteng and 0,765 for Limpopo.

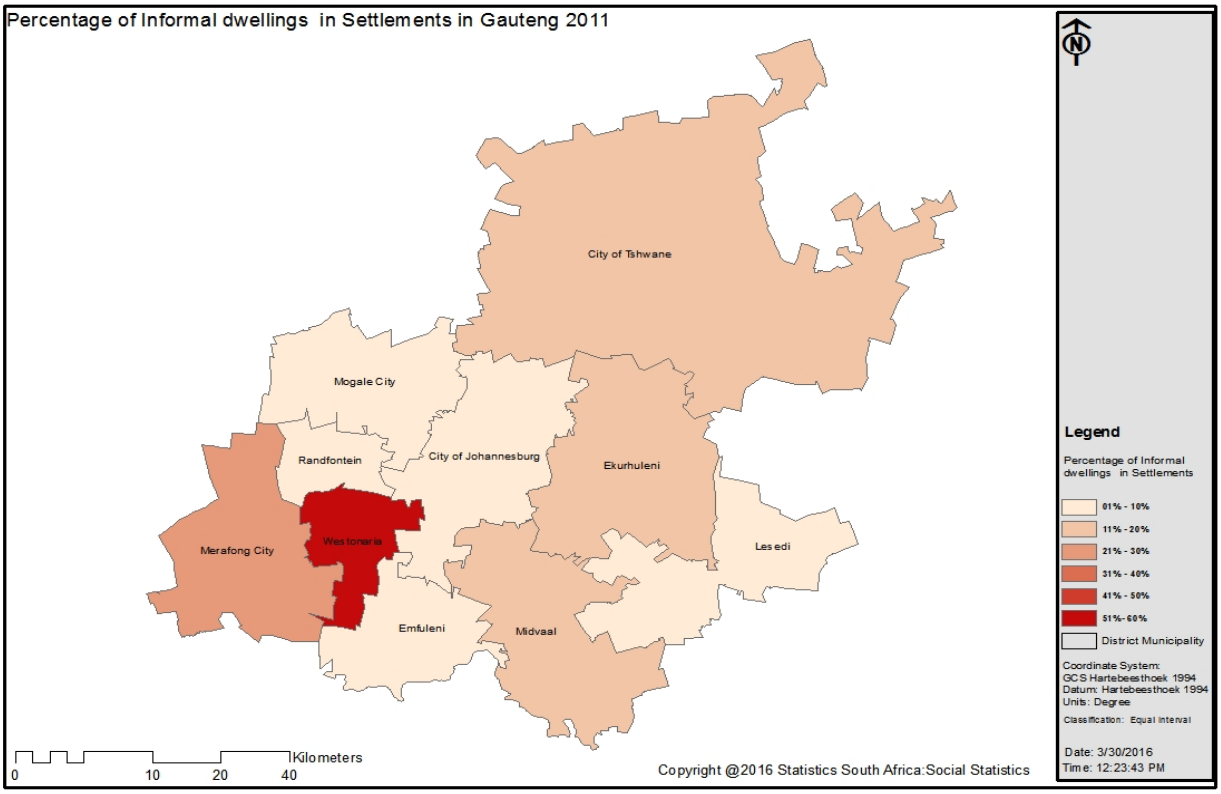
Table 12.6: Odds ratios for farmworkers living in informal dwellings per province, 2001 and 2011

Province	2001 Odds ratio	95% Wald Confidence limits		2011 Odds ratio	95% Wald Confidence limits	
All kinds of informal dwellings						
South Africa	**0,698**	**0,693**	**0,704**	**0,861**	**0,853**	**0,870**
Western Cape	0,597	0,586	0,608	0,729	0,714	0,744
Eastern Cape	0,788	0,768	0,809	1,134	1,096	1,172
Northern Cape	0,834	0,802	0,866	0,778	0,739	0,820
Free State	0,435	0,425	0,445	0,842	0,815	0,870
KwaZulu-Natal	0,740	0,723	0,758	0,769	0,744	0,794
North West	0,504	0,492	0,516	0,691	0,673	0,710
Gauteng	1,625	1,595	1,655	1,610	1,573	1,648
Mpumalanga	0,683	0,667	0,699	1,017	0,984	1,051
Limpopo	1,614	1,579	1,651	1,279	1,239	1,321
Informal dwellings in settlements						
South Africa	**0,728**	**0,722**	**0,734**	**1,007**	**0,996**	**1,018**
Western Cape	0,613	0,600	0,626	0,846	0,826	0,866
Eastern Cape	0,803	0,780	0,826	1,111	1,068	1,155
Northern Cape	0,913	0,875	0,953	0,882	0,833	0,934
Free State	0,447	0,435	0,458	0,914	0,879	0,951
KwaZulu-Natal	0,706	0,687	0,725	0,782	0,753	0,812
North West	0,514	0,500	0,528	0,858	0,832	0,884
Gauteng	1,659	1,625	1,694	1,777	1,728	1,827
Mpumalanga	0,682	0,665	0,701	1,109	1,068	1,152
Limpopo	1,694	1,652	1,736	1,666	1,605	1,730
Informal dwellings in backyards						
South Africa	**0,663**	**0,654**	**0,673**	**0,663**	**0,652**	**0,674**
Western Cape	0,596	0,576	0,616	0,596	0,576	0,617
Eastern Cape	0,765	0,722	0,811	1,170	1,101	1,243
Northern Cape	0,617	0,566	0,672	0,537	0,478	0,602
Free State	0,480	0,459	0,501	0,754	0,715	0,796
KwaZulu-Natal	0,901	0,859	0,944	0,759	0,715	0,805
North West	0,566	0,542	0,591	0,488	0,464	0,513
Gauteng	1,325	1,283	1,369	1,230	1,187	1,274
Mpumalanga	0,734	0,699	0,770	0,833	0,784	0,885
Limpopo	1,291	1,233	1,350	0,765	0,721	0,811

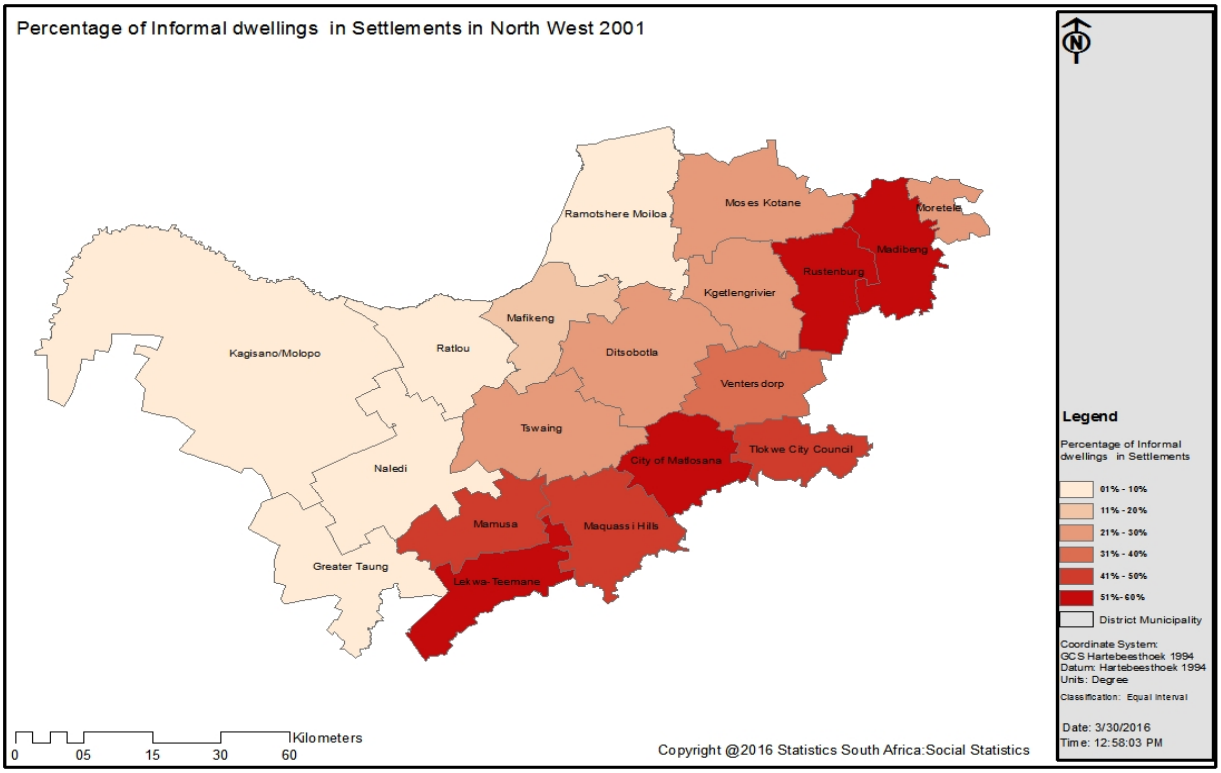
Source: Census 2001 and 2011

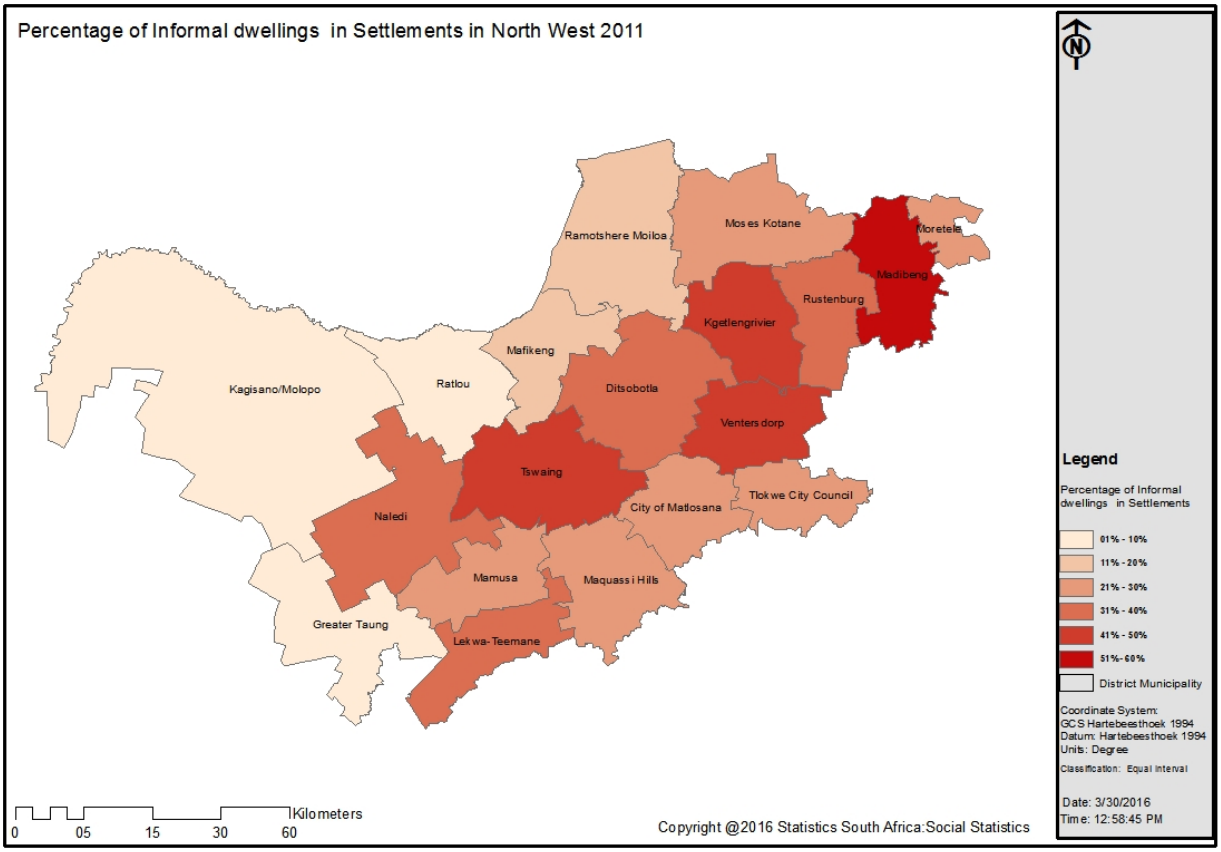
Map 12.6: Percentage distribution of informal dwellings in settlements per municipality in Gauteng, 2001 and 2011



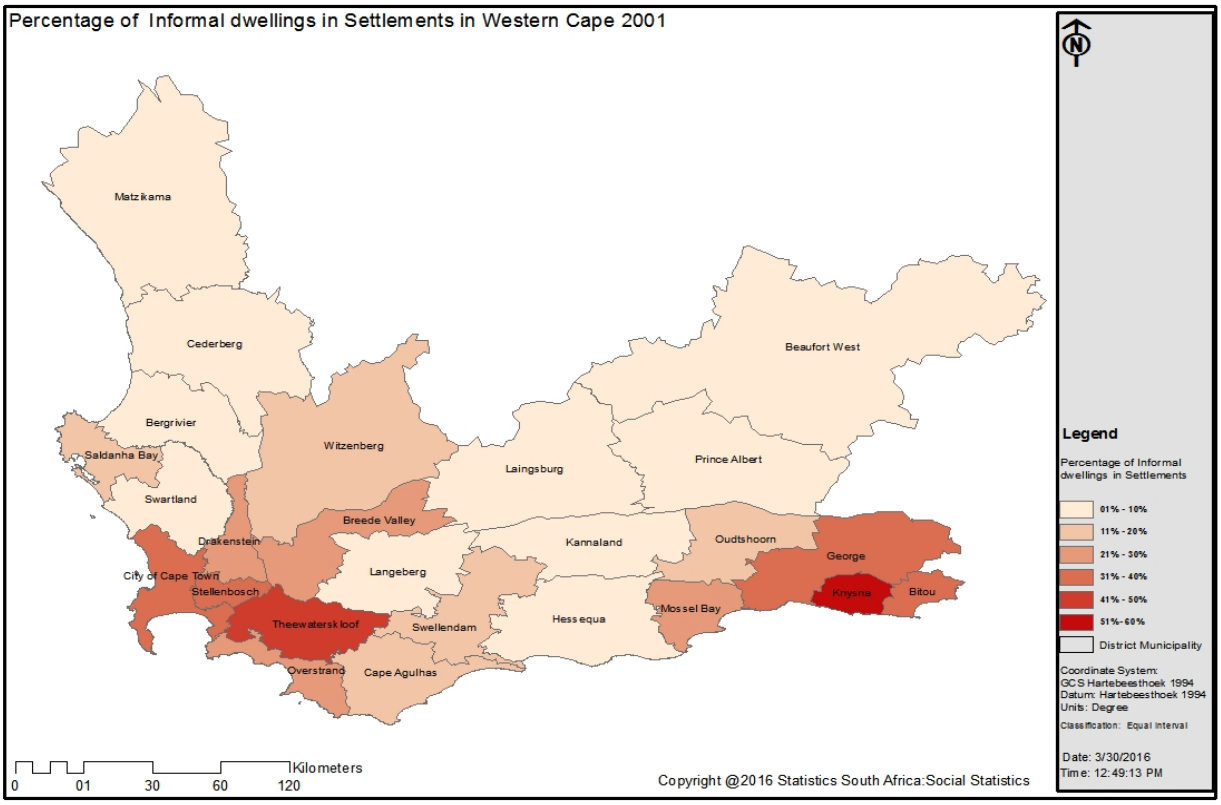


Map 12.7: Percentage distribution of informal dwellings in settlements per municipality in North West, 2001 and 2011





Map 12.8: Percentage distribution of informal dwellings in settlements per municipality in Western Cape, 2001 and 2011



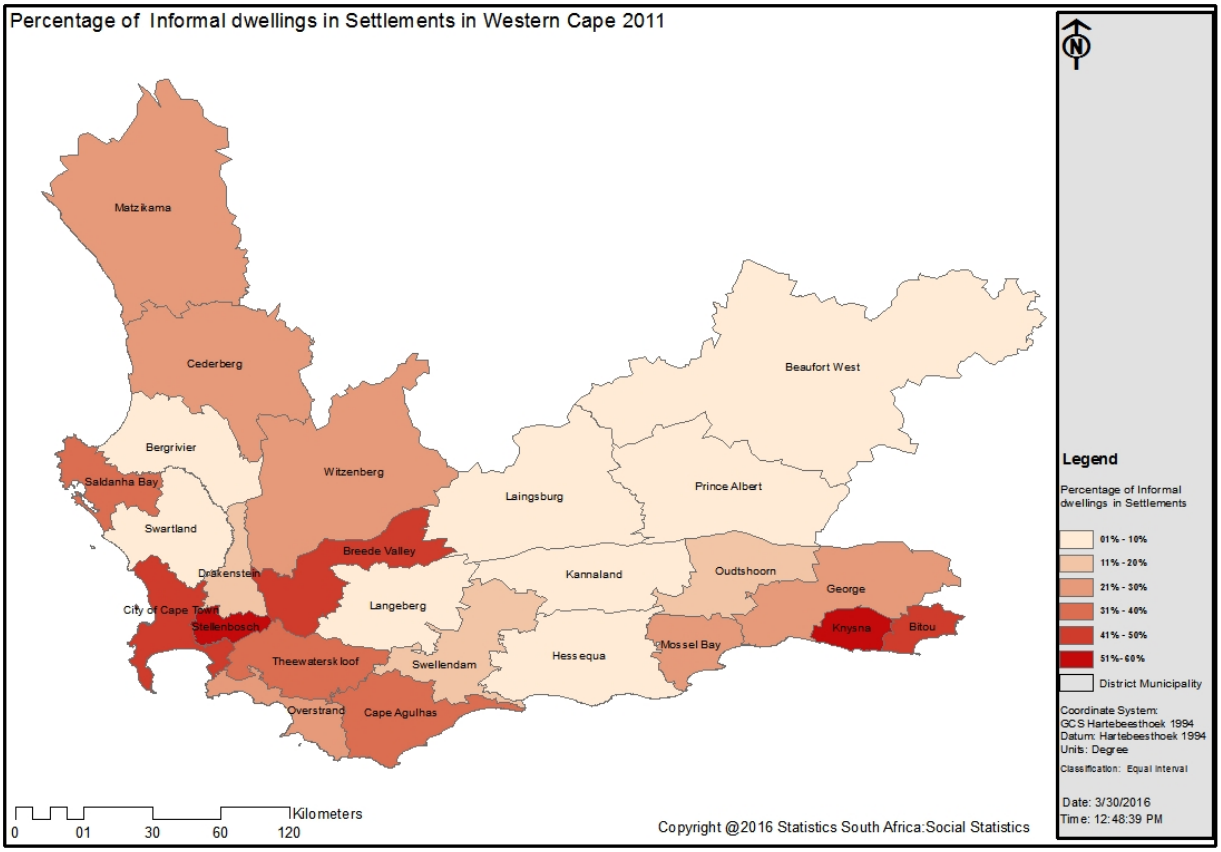
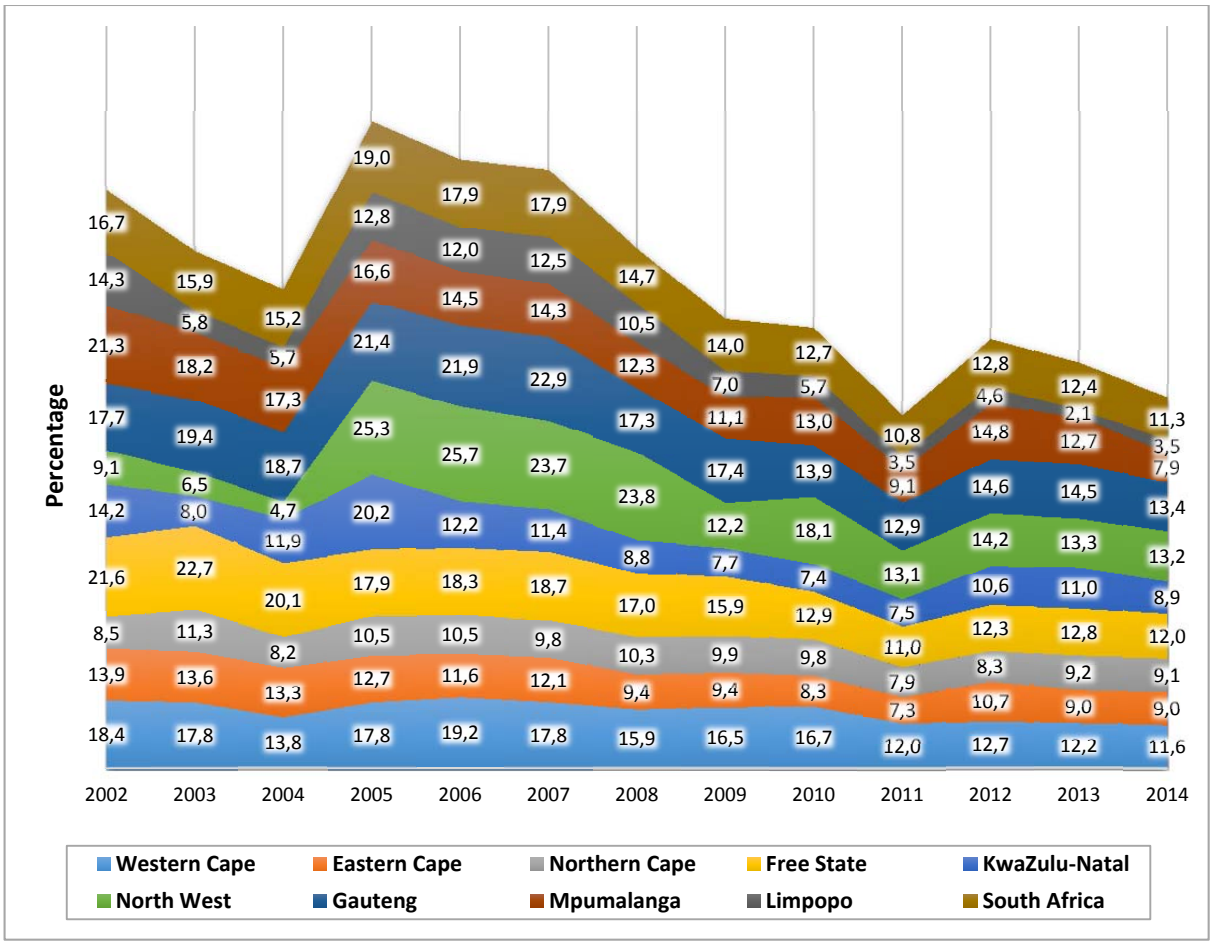


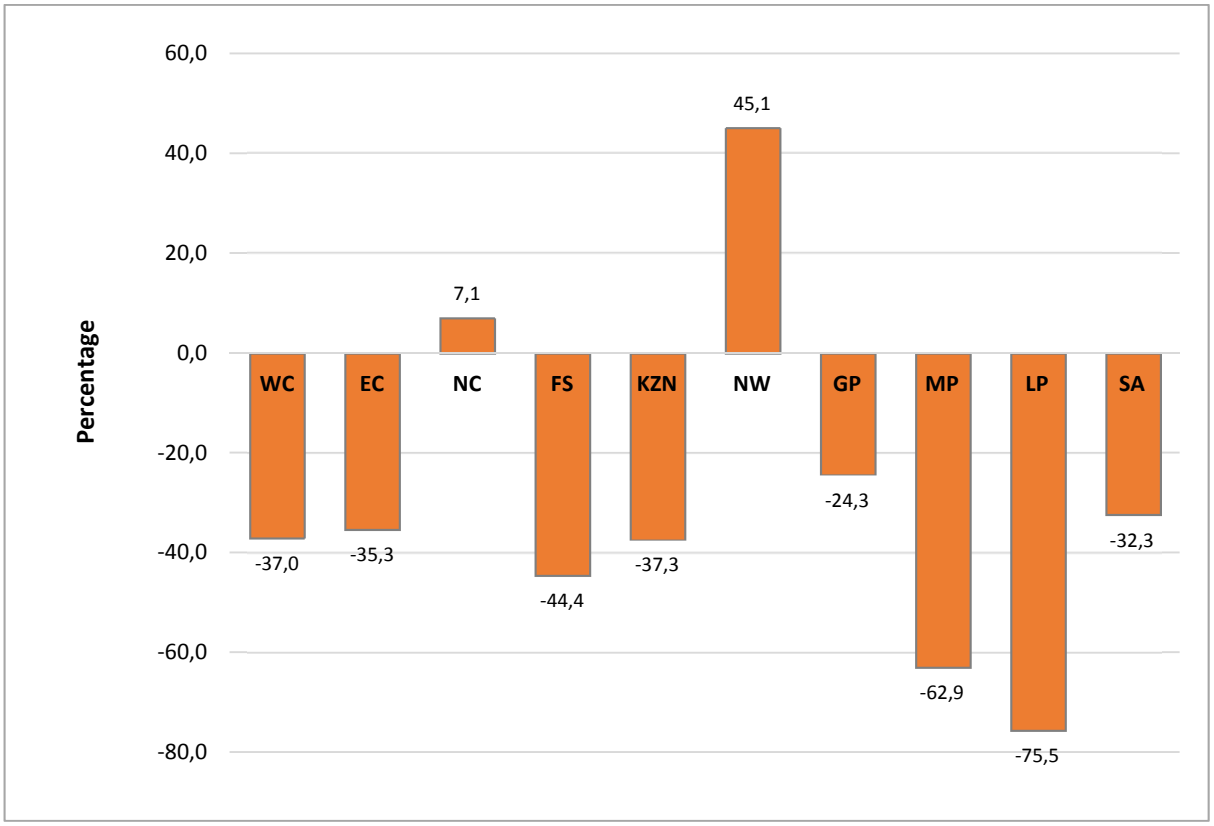
Figure 12.3: Percentage distribution of urban population living in informal settlements by province, 2002–2014



Source: GHS 2002-2014

The figure above shows a decline in the percentage of the South African households who live in informal settlements. Roughly 17% of households lived in informal settlements in 2002, while the proportion of this population peaked at 19% in 2005. The general trend continued downwards to nearly 11% in 2014. North West and Gauteng, each with about 13% of households living in informal settlements, had the highest proportion of households living under such conditions in 2014.

Figure 12.4: Percentage change of the urban population living in informal settlements by province, 2002 and 2014



Source: GHS 2002 and 2014

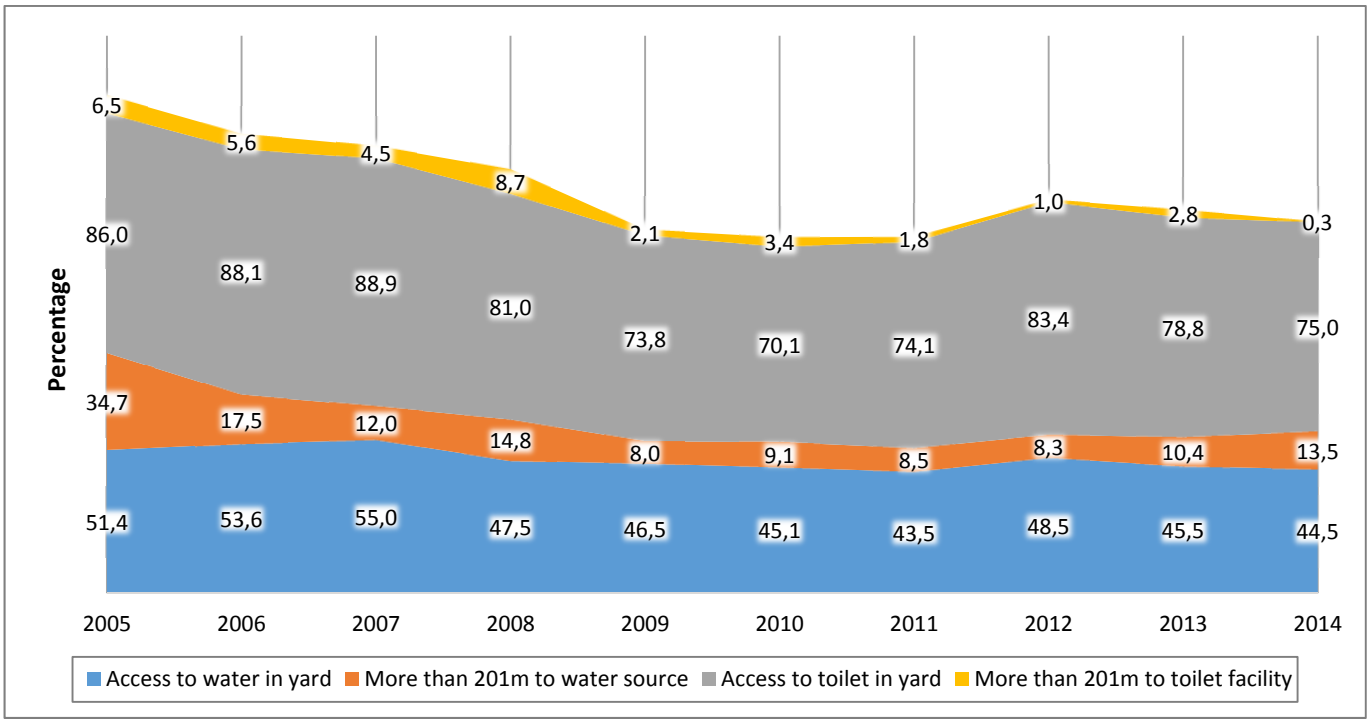
As evidenced by the figure above, North West and Northern Cape were the only provinces that experienced a proportional increase in the number of their population living in informal settlements when comparing 2002 and 2014. In North West, there was a 45% increase in the proportion of their urban population housed in informal settlements, whereas Northern Cape only had a 7% increase.

In contrast to this, Limpopo (-75,5%) had the highest decline of their population that lived in informal settlements, followed by Mpumalanga where there was a 63% decline in persons who resided in informal settlements between 2002 and 2014.

It is noteworthy that the provinces with large metropolitan areas all experienced a decline in the percentage of the urban population housed in informal settlements, namely Free State (-44%), KwaZulu-Natal (-37%), Western Cape (-37%), Eastern Cape (-35%) and Gauteng (-24%).

12.3 Access to basic services and alternative housing

Figure 12.5: Percentage distribution of households in informal settlements and their access to water and sanitation inside the yard and distance to water and sanitation if access is outside the yard, 2005–2014

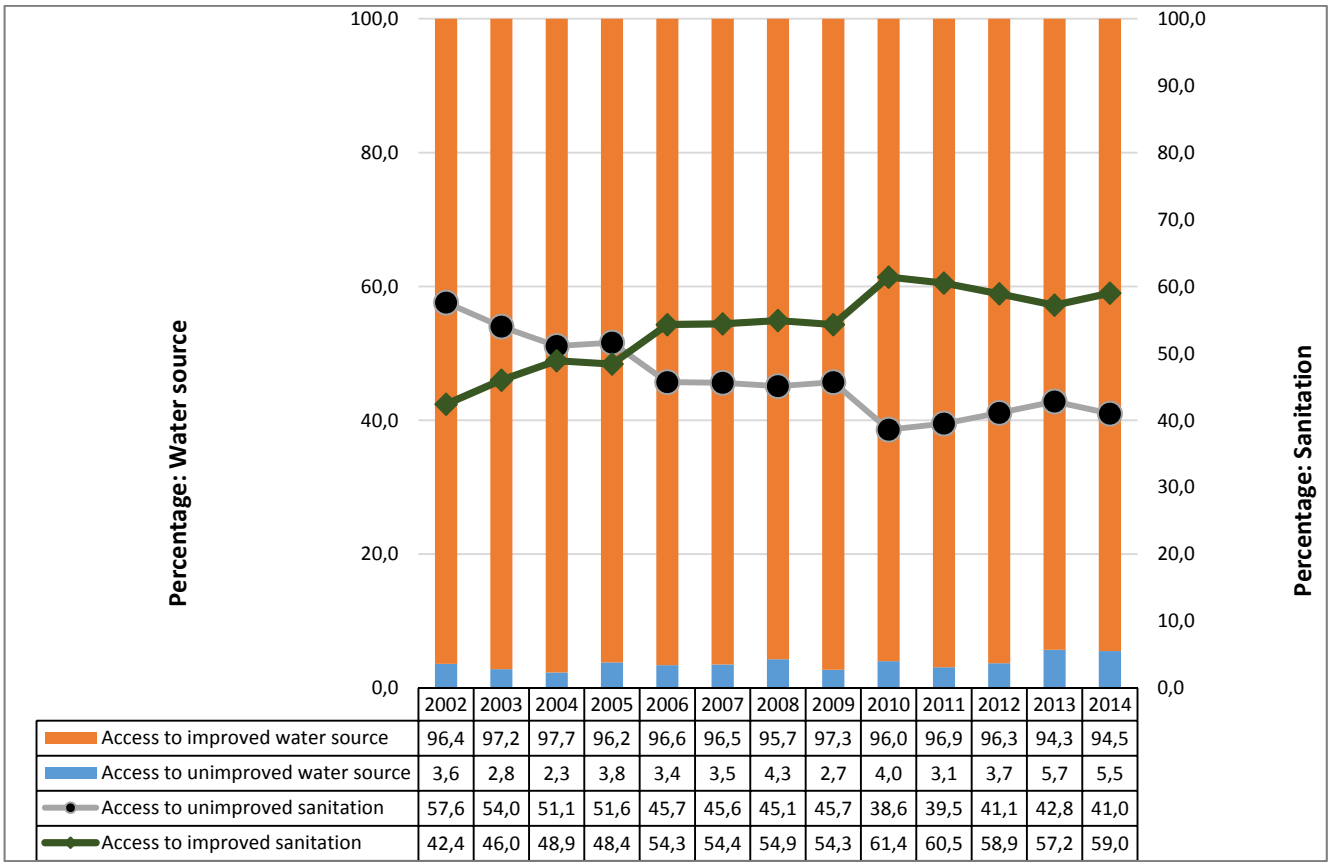


Source: GHS 2005-2014

The figure shows a downward trend in access to water inside the yard for households living in informal settlements during the reference period. More than half of households (51,4%) accessed water in their yards in 2005, which was higher than their access in 2014 (45%). Interestingly, among the households who accessed water outside their yard, the distance they covered to a water source has gradually dropped, because in 2002, about thirty-five per cent reportedly travelled more than 201 metres for water, but in 2014, only 14% travelled further than 201 metres.

Households' access to toilet facilities inside their yard has worsened between 2002 and 2014, and this is shown by the consistent decrease in access to toilet facilities inside the yard from 86% in 2002 to reach seventy-five per cent of households living in informal settlements who are able to access toilet facilities in 2014. Furthermore, the figure shows that there were negligible households living in informal settlements whose the nearest toilet facility was more than 200 metres from their dwelling unit in 2014.

Figure 12.6: Percentage distribution of households living in informal dwellings and access to unimproved water source and sanitation, 2002–2014



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Access to improved water source	96,4	97,2	97,7	96,2	96,6	96,5	95,7	97,3	96,0	96,9	96,3	94,3	94,5
Access to unimproved water source	3,6	2,8	2,3	3,8	3,4	3,5	4,3	2,7	4,0	3,1	3,7	5,7	5,5
Access to unimproved sanitation	57,6	54,0	51,1	51,6	45,7	45,6	45,1	45,7	38,6	39,5	41,1	42,8	41,0
Access to improved sanitation	42,4	46,0	48,9	48,4	54,3	54,4	54,9	54,3	61,4	60,5	58,9	57,2	59,0

Source: GHS 2002-2014

Improved water source include:

- Piped or tap water in the dwelling/house
- Piped or tap water in the yard
- Borehole inside and outside yard
- Neighbour's tap and
- Communal tap

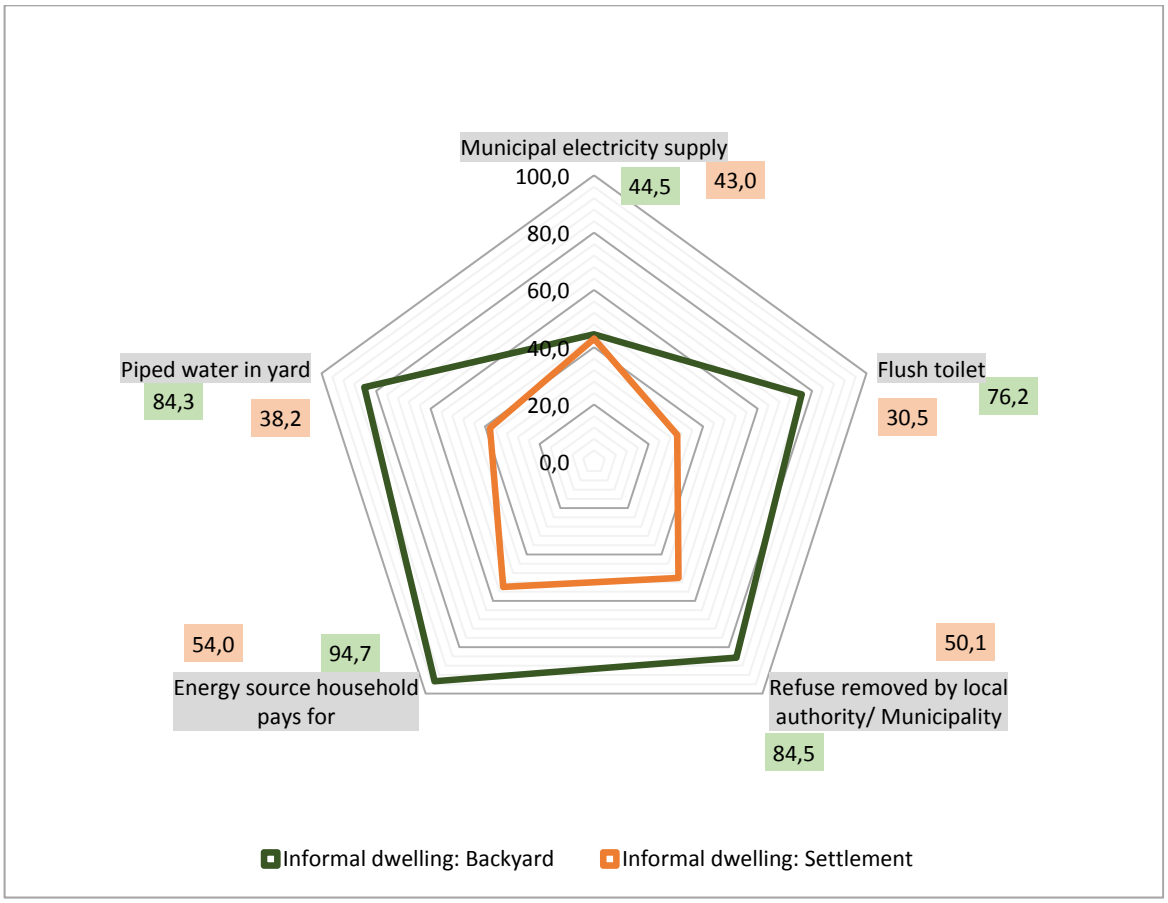
The figure shows that more than three per cent of households in informal settlements accessed unimproved water sources in 2002, but worryingly, the proportion of households who used such water increased over the reference period to nearly six per cent in 2014.

'Improved sanitation include:

- Flush toilet connected to a public sewerage system
- Flush toilet connected to a septic tank
- Pit latrine /toilet with ventilation pipe

The proportion of households in informal settlements who accessed unimproved sanitation facilities was worryingly high in 2002, given that more than half of such households did not have access to improved sanitation facilities. However, access to improved sanitation facilities has since progressed significantly, with the result that fewer households in informal settlements accessed unimproved sanitation (declined from 58% in 2002 to 41% in 2014).

Figure 12.7: Percentage of households living in informal dwellings by services they accessed, 2014



Source: GHS 2014

The disparities in services accessed between informal dwelling units in backyards and informal dwellings in settlements are unsurprising, given that the former dwelling unit types are more likely to be in formal settlements. Pointedly, more than three-quarters of households in informal dwellings in backyards have access to flush toilets and piped water inside their dwelling yards. While only 45% claimed to have access to municipal-supplied electricity, more than nine out of ten of these households paid for their energy source, while about 85% indicated that the municipality was removing refuse from their dwelling units.

In comparison, about only forty per cent of households in informal settlements had access to piped water, and even fewer had access to flush toilets (30%). This uneven access to basic services relates to the unplanned nature of informal settlements, and the resulting inconsistencies in bulk infrastructure service provision to households in such settlements. Interestingly, similar to their counterparts who predominantly live in the backyards of houses in formal areas, roughly 43% of households in informal settlements accessed municipal electricity, and slightly more than half indicated that they pay for the energy that they use. Municipal or local authorities seemed to remove refuse for only half of the households in informal settlements.

Table 12.7: Percentage of households living in informal dwellings with at least one member employed, and the per capita income quintile of the household, 2009–2014

	2009	2010	2011	2012	2013	2014
Employment status[5]						
At least one person employed in household	80,1	79,3	77,1	80,6	79,5	80,0
None employed in household	19,9	20,7	22,9	19,4	20,5	20,0
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**
Income quintile						
Poorest quintile	20,9	22,7	21,0	20,8	22,6	21,0
Quintile 2	20,3	19,5	19,2	20,3	21,8	24,4
Quintile 3	28,3	25,7	24,2	24,9	25,8	25,9
Quintile 4	23,8	25,3	28,1	26,0	24,6	22,4
Richest quintile	6,7	6,9	7,5	8,1	5,2	6,4
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

Source: GHS 2009-2014

The table combined the employment status of households in informal settlements and those who live in backyards, and found that consistently between 2009 and 2014, around two out of ten of these households have no employed household member.

Throughout the reference period, households who lived in informal dwellings were predominantly from income quintiles 1 to 3. In 2011 and 2012, a slightly higher percentage than in previous years also found themselves in quintile 4 (28% and 26%, respectively). As can be expected, the highest income quintile had the lowest share of households in informal dwellings.

[5] The early years of the time series did not include all the questions needed to calculate the official employment status. These figures are based on the percentages of individuals who worked during the 7 days preceding the survey.

Table 12.8: Percentage distribution of households living in informal dwellings who had at least one member on the waiting list for an RDP/subsidised house, and the number of years that they have been on that waiting list by province, 2013

INDICATOR	WC	EC	NC	FS	KZN	NW	GP	MP	LP	SA
A member on waiting list	33,4	40,0	61,8	28,7	19,3	19,1	32,0	30,5	20,8	**29,6**
No member on waiting list	66,6	60,0	38,2	71,3	80,7	80,9	68,0	69,5	79,2	**70,4**
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	**100,0**
1–3 years	11,9	23,5	35,0	19,4	11,9	13,6	13,7	18,5	15,2	**14,9**
4–7 years	7,3	8,3	13,6	5,9	2,3	2,8	4,0	5,0	4,5	**4,7**
8–10 years	6,2	3,6	2,1	1,6	3,0	0,9	6,0	0,5	1,1	**4,2**
Longer than 10 years	7,9	4,5	11,0	1,8	2,1	1,7	8,3	6,5	*	**5,8**
Not applicable	66,6	60,0	38,2	71,3	80,7	80,9	68,0	69,5	79,2	**70,4**
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

Source: GHS 2013

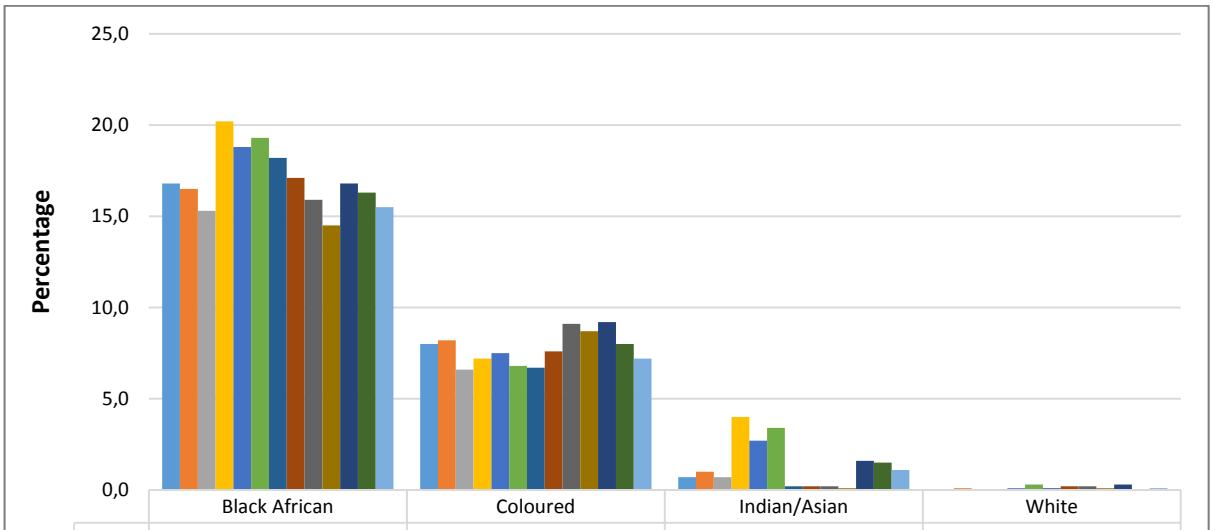
Generally, three out of every ten households living in informal housing had members who have submitted their names to receive RDP housing in 2013, while Northern Cape had the highest percentage of households with such members (61,8%), followed by Eastern Cape (40,0%), Western Cape (33,4%) and Gauteng (32,0%).

The table further shows the length of time household members who are on the waiting list had to wait for RDP/subsidised housing. Countrywide, nearly 15% claimed to have been waiting between one and three years, while around six per cent have been waiting for more than ten years for a RDP/government-subsidised house. Northern Cape seems to have the slowest rate of RDP housing provisioning, since slightly more than one out every ten households with members on the waiting list reported that their members have waited for longer than ten years, whereas roughly 35% have waited for up to three years and almost 14% have waited between four and seven years.

In 2013, most households in informal dwellings, who have been waiting for RDP housing, have been waiting for up to three years, while the second highest proportion was recorded for longer than ten years. Limpopo did not have any households who reported that they had a member who has been on the waiting list for longer than ten years.

12.4 Socio-economic characteristics of households living in informal dwellings

Figure 12.8: Percentage distribution of the population group of the household head of households living in informal dwellings as a proportion of the same population group of household heads in other dwelling types, 2002–2014



	Black African	Coloured	Indian/Asian	White
2002	16,8	8,0	0,7	0,0
2003	16,5	8,2	1,0	0,1
2004	15,3	6,6	0,7	0,0
2005	20,2	7,2	4,0	0,0
2006	18,8	7,5	2,7	0,1
2007	19,3	6,8	3,4	0,3
2008	18,2	6,7	0,2	0,1
2009	17,1	7,6	0,2	0,2
2010	15,9	9,1	0,2	0,2
2011	14,5	8,7	0,1	0,1
2012	16,8	9,2	1,6	0,3
2013	16,3	8,0	1,5	0,0
2014	15,5	7,2	1,1	0,1

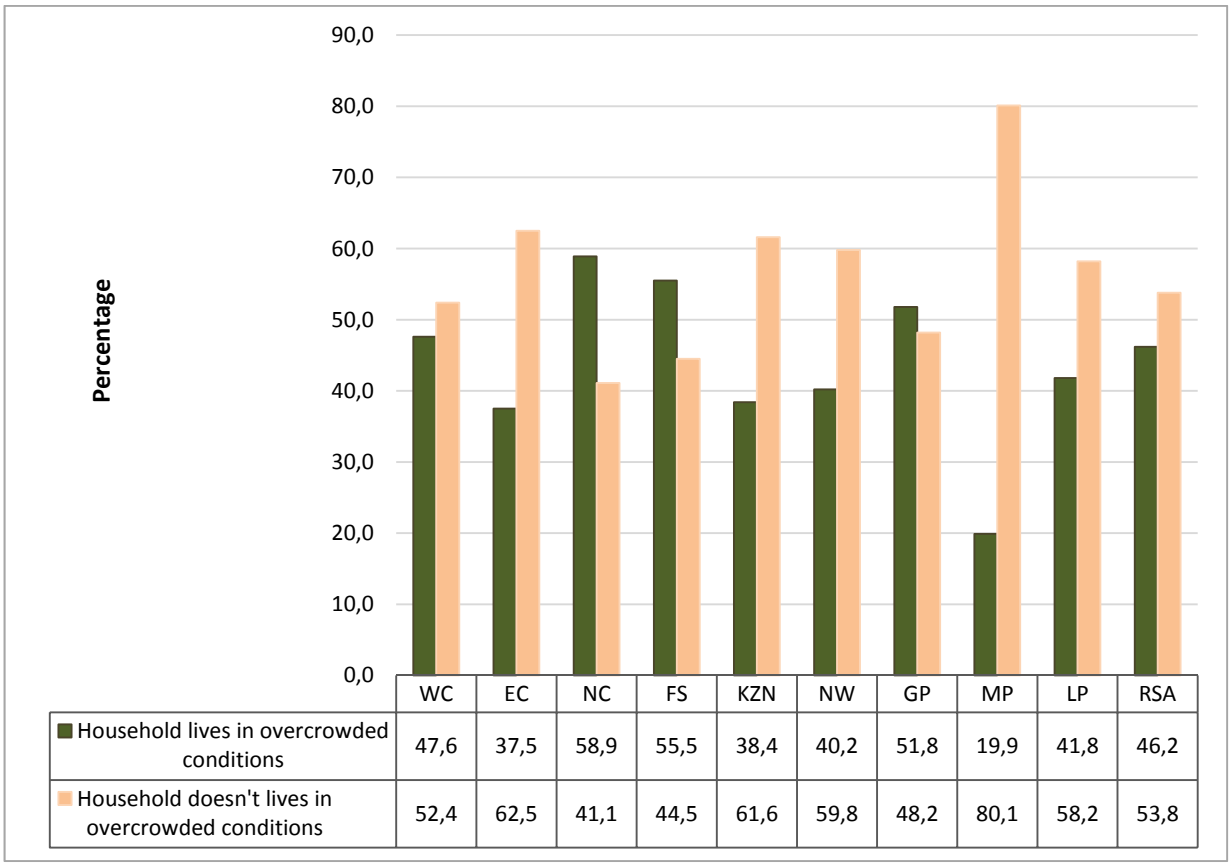
Source: GHS 2002-2014

The figure compares the population group of the head of the household living in informal dwellings with those in the same population group who live in other dwelling types. It is a departure from comparing socio-economic characteristics across population groups, which usually reflects skewed proportions.

When comparing the accommodation of black Africans in 2002, the figure shows that nearly seventeen per cent of households headed by black Africans lived in informal dwellings, compared to eight per cent of coloured-headed households. Less than one per cent of the Indian/Asian population group and a negligible percentage of households headed by white household heads lived in informal dwellings. The trend for the white population group remained extremely low for the whole reference period, meaning that there is a low likelihood to find this subgroup living in informal dwellings.

Between 2002 and 2014, households with a black African household head were more likely to live in informal dwellings than other population groups. A peak was reached in 2005, when about two out of ten households in informal dwellings had a black African as a household head, but this percentage has dropped since then to about 15% in 2014. About seven per cent of households with a coloured household head lived in informal settlements in 2014, which was a minor decline from the peak of nine per cent in 2012.

Figure 12.9: Percentage distribution of households living in overcrowded conditions in informal dwellings by province, 2014

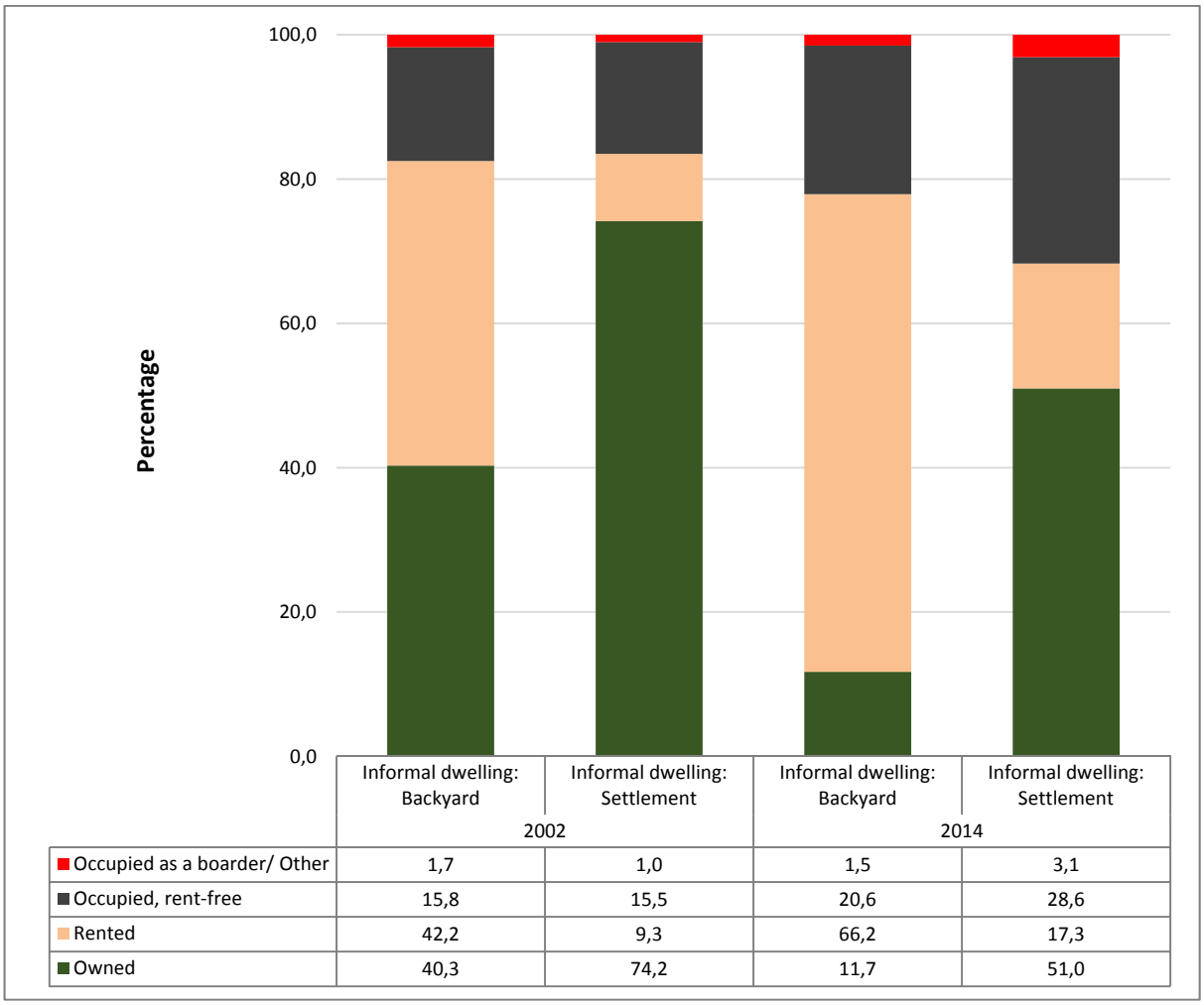


	WC	EC	NC	FS	KZN	NW	GP	MP	LP	RSA
Household lives in overcrowded conditions	47,6	37,5	58,9	55,5	38,4	40,2	51,8	19,9	41,8	46,2
Household doesn't lives in overcrowded conditions	52,4	62,5	41,1	44,5	61,6	59,8	48,2	80,1	58,2	53,8

Source: GHS 2014

According to Figure 12.9, less than half of households living in informal dwellings in the country were living in overcrowded conditions in 2014. The figure also shows that Northern Cape had the highest proportion of households in informal dwellings who experienced overcrowded conditions, as almost six out of ten dwelling units were overcrowded. Free State (56%) and Gauteng (52%) had more than half of all households in informal dwellings living in overcrowded conditions, while Western Cape (48%) was quite close to that mark. Mpumalanga (20%) had the lowest percentage of households in informal dwellings who were living in overcrowded conditions, while Eastern Cape had almost 38% of households with more than 2 people per room for informal dwellings.

Figure 12.10: Percentage distribution of the tenure status of households living in informal dwellings, 2002 and 2014



	2002		2014	
	Informal dwelling: Backyard	Informal dwelling: Settlement	Informal dwelling: Backyard	Informal dwelling: Settlement
Occupied as a boarder/ Other	1,7	1,0	1,5	3,1
Occupied, rent-free	15,8	15,5	20,6	28,6
Rented	42,2	9,3	66,2	17,3
Owned	40,3	74,2	11,7	51,0

Source: GHS 2002 and 2014

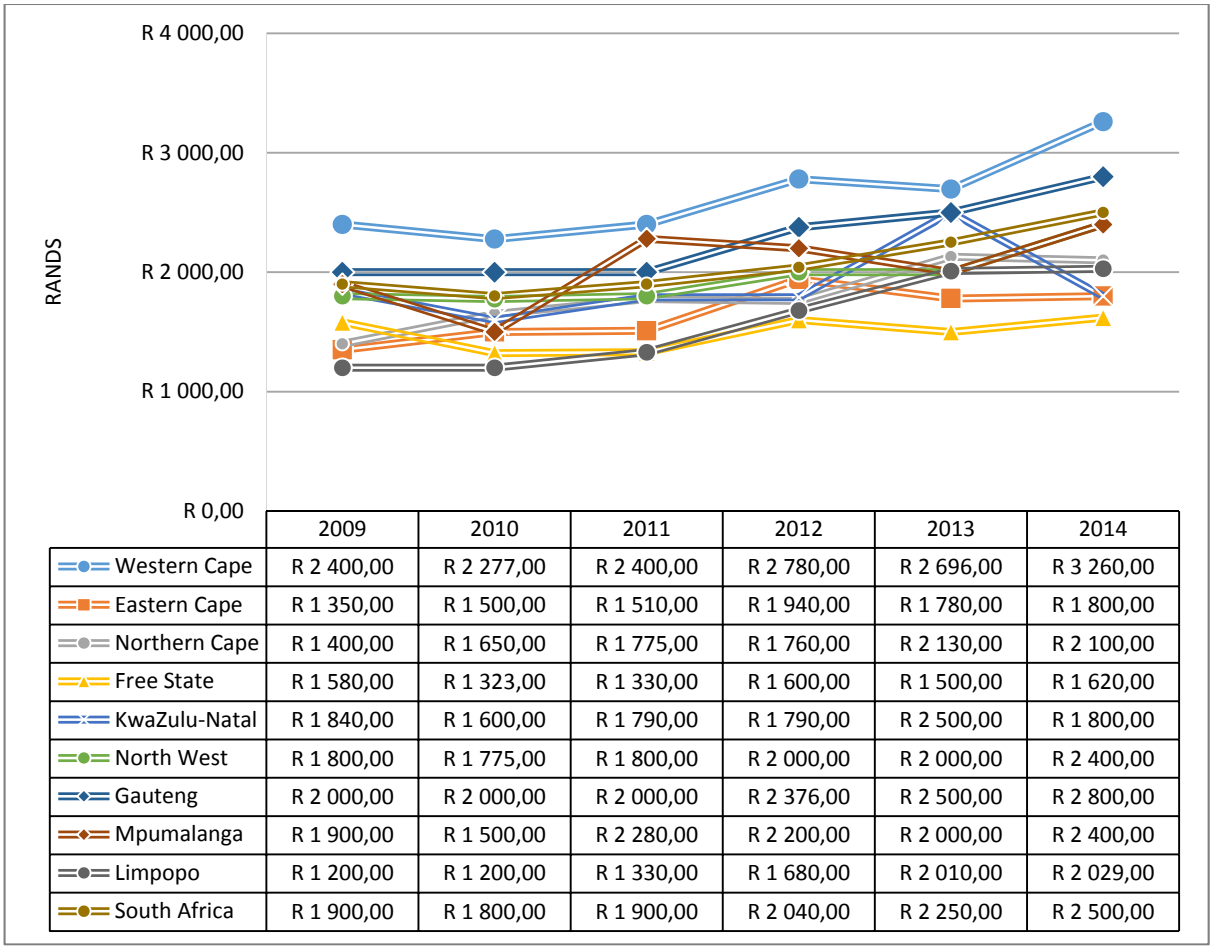
A comparison of the tenure status of households in backyards and in informal settlements shows that in 2002, backyard dwellers were almost equally likely to rent (42%) or own (40%) their accommodation, while a further 16% occupied their dwellings rent-free.

In contrast, households in informal settlements (74%) mostly owned their dwellings, yet almost 16% occupied theirs rent-free, and some (9%) were tenants.

However, in 2014, nearly two-thirds of households (66,2%) living in backyard informal dwellings were tenants (24 percentage point increase from 42% in 2002). Two out of ten households occupied their informal accommodation rent-free, constituting an increase from 2002. Meanwhile, 2014 saw a 70% percentage decline in households who lived in backyards and who owned their dwellings.

There was decrease in informal settlement dwellers (51%) who owned their dwellings (from 74,2% in 2002,those who are living in backyards decreased from 40,3 to 11,7% in 2014), while there was a noticeable increase in households who rented (17,3%), as well as those who occupied their dwellings rent-free(28,6%).

Figure 12.11: Median income of households living in informal dwellings, 2009–2014



	2009	2010	2011	2012	2013	2014
Western Cape	R 2 400,00	R 2 277,00	R 2 400,00	R 2 780,00	R 2 696,00	R 3 260,00
Eastern Cape	R 1 350,00	R 1 500,00	R 1 510,00	R 1 940,00	R 1 780,00	R 1 800,00
Northern Cape	R 1 400,00	R 1 650,00	R 1 775,00	R 1 760,00	R 2 130,00	R 2 100,00
Free State	R 1 580,00	R 1 323,00	R 1 330,00	R 1 600,00	R 1 500,00	R 1 620,00
KwaZulu-Natal	R 1 840,00	R 1 600,00	R 1 790,00	R 1 790,00	R 2 500,00	R 1 800,00
North West	R 1 800,00	R 1 775,00	R 1 800,00	R 2 000,00	R 2 000,00	R 2 400,00
Gauteng	R 2 000,00	R 2 000,00	R 2 000,00	R 2 376,00	R 2 500,00	R 2 800,00
Mpumalanga	R 1 900,00	R 1 500,00	R 2 280,00	R 2 200,00	R 2 000,00	R 2 400,00
Limpopo	R 1 200,00	R 1 200,00	R 1 330,00	R 1 680,00	R 2 010,00	R 2 029,00
South Africa	R 1 900,00	R 1 800,00	R 1 900,00	R 2 040,00	R 2 250,00	R 2 500,00

Source: GHS 2009-2014

The nominal median monthly income level of households in informal dwellings showed an increasing trend from the 2009 levels of R1 900 to peak at R2 500 in 2014. As can be expected, income levels of households in Western Cape (R2 400) and Gauteng (R2 000) were the highest when compared to other provinces in 2009, while households in Limpopo (R1 200) and Eastern Cape (R1 350) had to make do with much lower incomes than other households.

There was an increase in household incomes in 2012, which saw Western Cape households showing a median income of R2 780, R2 376 in Gauteng, and surprisingly, R2 200 in Mpumalanga. Another general rise in income was observed in 2014, during which time Western Cape once again topped the national median income levels with a median income level of R3 260, followed by Gauteng (R2 800), while North West and Mpumalanga both came third with a median income level of R2 400.

Table 12.9: Percentage of persons aged 0–4 years living in informal dwellings by exposure to early childhood development, 2009–2014

		2009		2010		2011		2012		2013		2014	
		Informal dwelling: backyard	Informal dwelling: settlement	Informal dwelling: backyard	Informal dwelling: settlement	Informal dwelling: backyard	Informal dwelling: settlement	Informal dwelling: backyard	Informal dwelling: settlement	Informal dwelling: backyard	Informal dwelling: settlement	Informal dwelling: backyard	Informal dwelling: settlement
Exposed to ECD	0–1 year old	11,6	12,8	19,6	20,0	18,1	18,8	31,3	35,0	23,1	22,4	23,0	20,8
	2–3 years old	18,1	16,1	28,0	26,8	21,2	27,1	30,7	39,5	32,7	26,9	30,1	36,2
	4 years old	14,0	10,2	11,4	14,2	12,2	16,9	16,5	16,1	11,2	18,0	11,9	15,1
	Total	**43,8**	**39,1**	**59,0**	**61,0**	**51,5**	**62,9**	**78,5**	**90,6**	**67,0**	**67,3**	**65,0**	**72,0**
Not exposed to ECD	0–1 year old	32,3	30,5	19,6	19,6	24,8	20,4	2,2	0,8	22,6	17,8	21,7	16,7
	2–3 years old	19,1	24,6	14,6	14,5	15,3	9,7	8,5	3,9	9,3	11,7	11,4	9,3
	4 years old	4,8	5,8	6,7	4,8	8,4	7,0	10,7	4,7	1,1	3,1	1,8	1,9
	Total	**56,2**	**60,9**	**41,0**	**39,0**	**48,5**	**37,1**	**21,5**	**9,4**	**33,0**	**32,7**	**35,0**	**28,0**
Total		**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

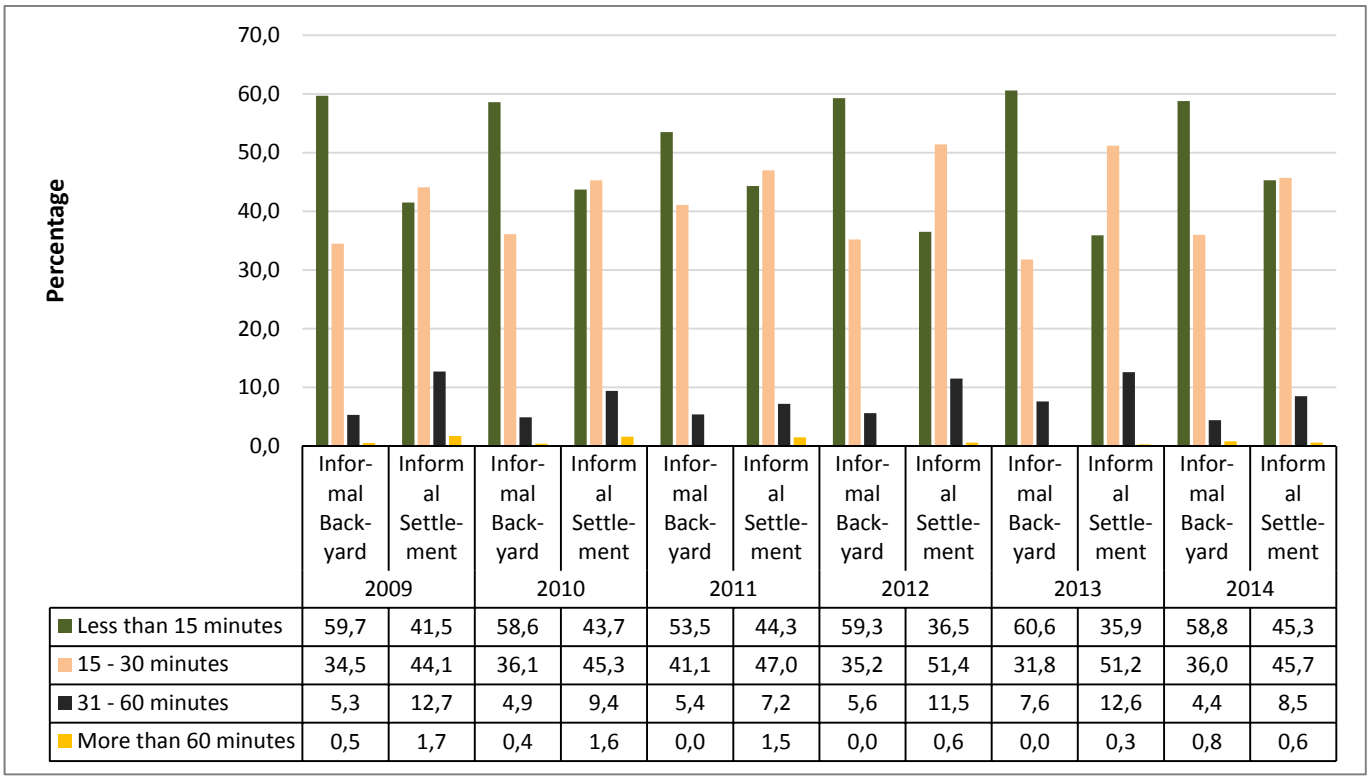
Source: GHS 2009-2014

It is noteworthy that slightly more than six out of ten children between the ages of zero and four years in informal settlements were not exposed to early childhood development (ECD) in 2009, and the situation was not much better for those who lived in backyards, because fifty-six per cent of those also did not attend such centres. Within this group of children, however, around thirty per cent were aged between zero and one year old – an age group that does not usually attend ECD centres.

From 2010 onwards, the data show an inverse in the percentage of children exposed to ECD centres at about 60% in 2010. Interestingly, 90% of children in informal settlements were exposed to ECD in 2012, which is made up mostly by those between two and three years of age (40%). Meanwhile, almost 80% of those who live in backyards were exposed to ECD. The percentage of children in informal settlements who were exposed to ECD had since declined to about 72%, with 2–3-year-olds making up around 36% of the total. Similarly, the exposure to ECD of children in backyard dwellings declined to 65%, and to three in ten children between two to three years old.

12.5 Transport and access to service points for households living in informal dwellings

Figure 12.12: Percentage of persons who attend school (pre-school to secondary) living in informal dwellings by the time it takes them to reach their schools, 2009–2014



	Informal Backyard	Informal Settlement	Informal Backyard	Informal Settlement	Informal Backyard	Informal Settlement	Informal Backyard	Informal Settlement	Informal Backyard	Informal Settlement	Informal Backyard	Informal Settlement
	2009		2010		2011		2012		2013		2014	
Less than 15 minutes	59,7	41,5	58,6	43,7	53,5	44,3	59,3	36,5	60,6	35,9	58,8	45,3
15 - 30 minutes	34,5	44,1	36,1	45,3	41,1	47,0	35,2	51,4	31,8	51,2	36,0	45,7
31 - 60 minutes	5,3	12,7	4,9	9,4	5,4	7,2	5,6	11,5	7,6	12,6	4,4	8,5
More than 60 minutes	0,5	1,7	0,4	1,6	0,0	1,5	0,0	0,6	0,0	0,3	0,8	0,6

Source: GHS 2009-2014

Almost 59% of pre-schoolers and young persons in primary and secondary school, living in backyard dwellings took less than fifteen minutes to travel to school throughout the reference period, with the exception of 2011, where just about 54% commuted in that time. In contrast, those in informal settlements who commuted to school in that same time remained under the 50% mark, and even dropped to around 36% in 2012 and 2013.

The figure further shows that a higher proportion of school-going children in informal settlements needed to travel for more than thirty minutes to get to school than those who live in backyards.

Table 2.10 summarises the odds ratios of various demographic characteristic in relation to the logistic regression model that was developed to predict the likelihood of a household living in an informal dwelling, based on some socio-demographic characteristics of the household and/or those of the household head. It shows that households in the North West are 1,7 times more likely to live in informal dwellings than households living in the Western Cape. The odds of living in informal dwellings in metropolitan areas and for black Africans are significantly higher than for other settlement types and population groups. Households with a household head with a grade 7 are 1,6 times and those with some secondary 1,5 times more likely than those without any education to live in informal dwellings. Households that live in a metropolitan area are the most likely to live in informal dwellings when compared to those that live in non-metro, urban areas; tribal areas as well as in rural formal areas. Households with a household head that identified themselves as black African were the most likely to live in informal dwellings in 2014, while those with a white household head were the least likely to live in informal dwellings. The data further shows that a household was more likely to live in an informal dwelling when there was at least one household member employed than if no member in the household was employed.

Table 12.10: Predictors of likelihood of households living in informal dwellings using logistics regression, 2014

Probability modelled	Living in informal dwelling	95% Wald	
Odds ratio			
Province		**Confidence limits**	
Western Cape (reference category)			
Eastern Cape	0,462	0,458	0,466
Northern Cape	0,777	0,766	0,787
Free State	0,655	0,649	0,661
KwaZulu-Natal	0,362	0,359	0,365
North West	1,721	1,706	1,735
Gauteng	0,628	0,624	0,632
Mpumalanga	0,513	0,508	0,519
Limpopo	0,376	0,372	0,380
Geographical location			
Metro (reference category)			
Non-metro, Urban	0,536	0,533	0,539
Tribal area	0,135	0,134	0,136
Rural formal	0,399	0,395	0,403
Household employment			
At least one household member employed (Reference group)			
No employed member in household	0,706	0,703	0,709
Per capita income quintile			
Poorest quintile (reference category)			
Quintile 2	0,899	0,894	0,903
Quintile 3	0,846	0,841	0,850
Quintile 4	0,685	0,682	0,689
Wealthiest quintile	0,410	0,407	0,413
Population group of household head			
Black African (reference category)			
Coloured	0,208	0,206	0,210
Indian/Asian	0,076	0,074	0,079
White	0,006	0,006	0,007
Education level of household head			
No schooling (reference category)			
Less than grade 7	1,173	1,164	1,182
Grade 7	1,570	1,556	1,584
Less than grade 12	1,514	1,504	1,525
Grade 12	1,076	1,068	1,085
Post-grade 12	0,222	0,220	0,225

Source: GHS 2014

12.6 Summary and conclusion

There has been a decrease in the urban population of South Africa living in informal settlements (from 17% in 2002 to 11% in 2014). North West and Gauteng had the highest proportion of urban households living under such conditions in 2014, with approximately 13%. Limpopo (-75,5%), Mpumalanga (-63%) and Free State (-44%) recorded the biggest declines in persons who resided in urban informal settlements between 2002 and 2014.

Gauteng (81,8%) and Free State (80,0%) had the biggest proportion of municipalities where more than 5% of dwellings consist of backyard informal dwellings. In Western Cape, 44% of municipalities were affected and 38,9% of local municipalities in North West were affected. These same provinces also carry the heaviest load in terms of the actual levels of informal dwellings in the backyard. Increases in these kinds of dwellings between 2001 and 2011 ranged from Swartland with a 4,2 percentage point increase to Nketoana in Free State with an 8,4 percentage point increase. Free State had four municipalities amongst the top ten with increases, followed by Western Cape with two.

Most of the municipalities that experienced a contraction in the percentage of backyard informal dwellings were areas that were affected by a reduction in either mining or manufacturing activities during the reference period. Thus, the decreases may have as much to do with better provisioning by the local municipality than it does with a reduction in economic opportunities and, per implication, demand for housing by migrant workers.

In 2011, district councils in Gauteng and Northern Cape were the most likely to have households living in informal settlements. However, most district councils experienced a decrease in the percentage of households living in informal settlements between 2001 and 2011. District councils with the most significant increases between 2001 and 2011 were Siyanda in Northern Cape, Cape Winelands in Western Cape and Ngaka Modiri Molema in North West.

The municipal profiles related to informal dwellings in settlements point to similar trends in Gauteng, North West and Free State. These provinces surpassed the other provinces in terms of the percentage of municipalities in those provinces with more than 10% of their dwellings that are informal dwellings in informal settlements. The provinces with the biggest proportions of municipalities where more than 10% of dwellings consist of informal dwellings in informal settlements were North West (66,7%), Gauteng (54,5%), Free State (40%) and Mpumalanga (38,9%). In relation to the highest levels of informal settlements, the heaviest loads are carried by Gauteng, North West and Free State. A lot of progress was also made, with 40% of municipalities in Free State, 29% in North West and 22% in Mpumalanga achieving reductions of at least 10 percentage points.

Two of the three local municipalities that have realised the biggest percentage point increases in households living in informal settlements were !Kheis (14 percentage point increase) and Tsantsabane (11,6 percentage point increase) – both in Northern Cape, and Naledi in North West. The biggest contractions during the period 2001 and 2011 were found in Modimolle (32,2 percentage point decrease) and Metsimaholo (23,4 percentage point decrease). Maletswai and Matjhabeng followed with decreases of approximately 17,8 percentage points.

Generally, access to basic services such as water, electricity and refuse removal is better for households living in backyard informal dwellings than those living in informal settlements.

The study found a decrease in access to water inside the yard for households living in informal settlements between 2005 (51,4%) and 2014 (39%). Generally, access to water outside the yard has improved in that those who travelled more than 201 metres for water dropped from 35% in 2005 to 14% in 2014. Those who accessed water from unsafe sources increased from 4% in 2002 to 7% in 2014. Access to toilet facilities inside the yard has

worsened from 86% in 2005 to 75% in 2014. Fewer households in informal settlements accessed unimproved sanitation (a decline from 58% in 2002 to 41% in 2014). Around two out of ten of households living in informal dwellings have no employed household member, and they were predominantly from income quintiles 1 to 4.

Three out of every ten households living in informal housing had members who have submitted their names to receive RDP housing in 2013. Northern Cape had the highest percentage of households with such members (62%), followed by Eastern Cape (40%), Western Cape (33,4%) and Gauteng (32,0%). Most of these individuals have been waiting for up to three years. Between 2002 and 2014, households with a black African household head were more likely to live in informal dwellings than other population groups. Less than half of households living in informal dwellings in the country were living in overcrowded conditions in 2014. The situation was worst in Northern Cape (six out of ten dwelling units were overcrowded) and slightly more than half in Free State and Gauteng. Backyard shack rentals increased between 2002 and 2014 (from 42% to 66%) and rentals in informal settlements increased from 9% to 17%. Ownership of informal settlement dwellings declined from 74,2% in 2002 to 51% in 2014. A higher proportion of school-going children in informal settlements needed to travel for more than thirty minutes to get to school than those who live in backyards.

The study also found that:

- Households living in North West were more likely than those living in Western Cape to occupy informal dwellings
- Households living in metropolitan areas were more likely than those living in other areas to live in informal dwellings
- Households with at least one employed household member were more likely to live in informal dwellings than those without employed members.
- Households headed by black Africans and heads with only grade 7 or some secondary education were more likely to live in informal settlements than other population groups and household heads without schooling.

13. Traditional housing

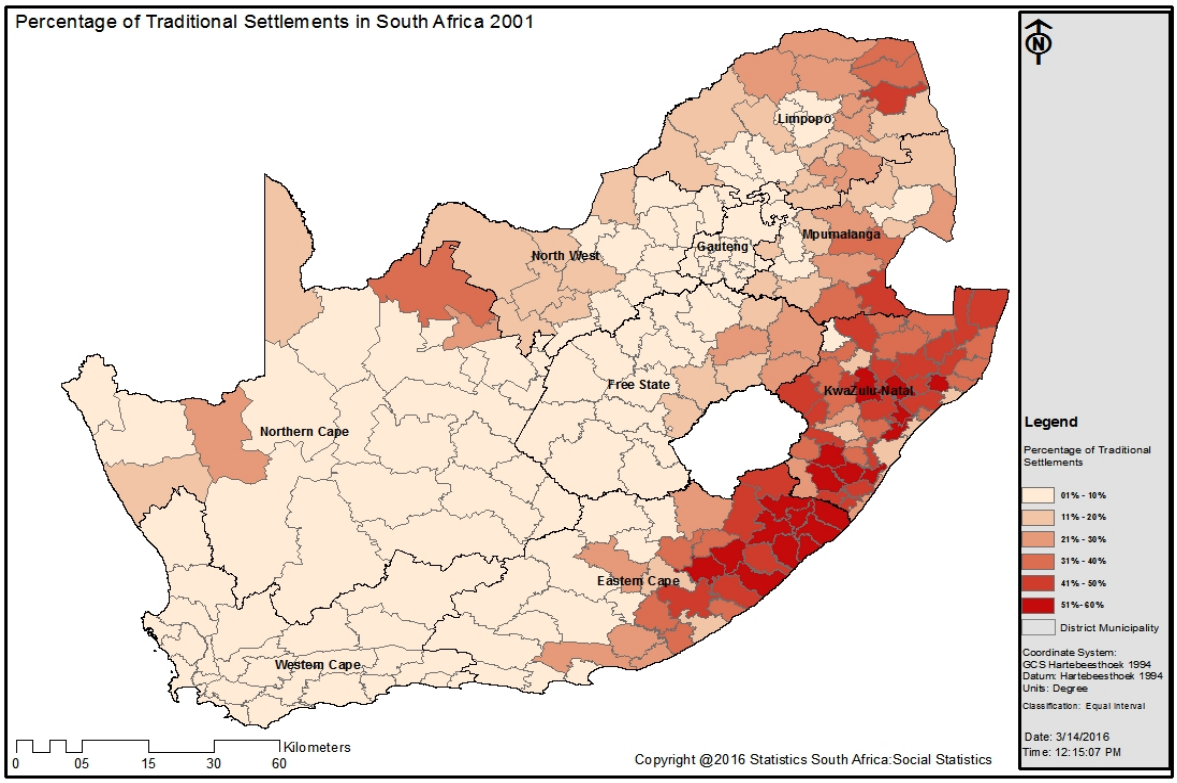
13.1 Introduction

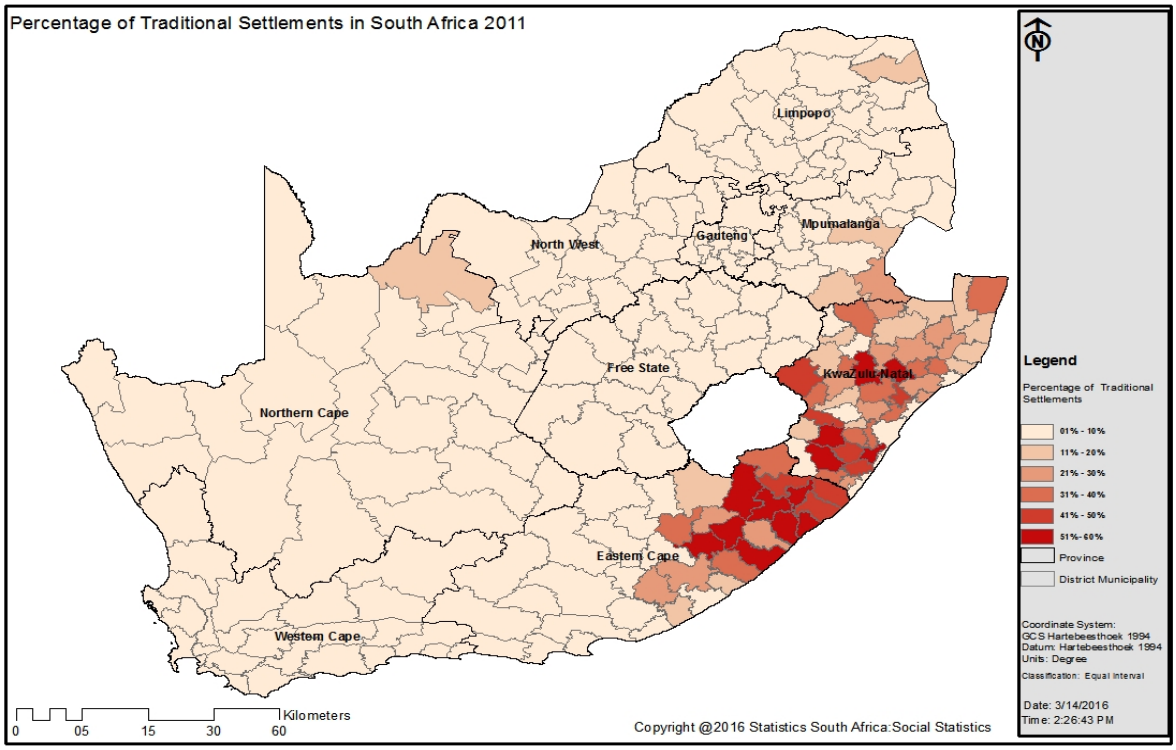
Traditional housing is defined as a dwelling/hut/structure made of traditional materials. These structures are in most cases less expensive and more environmentally friendly than formal structures in that the materials are natural and collected locally, without adding to a carbon footprint through a manufacturing process or long transportation network. Depending on the construction materials and methods used, such dwellings may be better insulated than formal dwellings against changes in temperature. Unfortunately these structures require regular maintenance, especially if the walls are made of mud and/or the roof of grass. The deforestation that results from the harvesting of wood for firewood and construction is another potential negative consequence of traditional construction methods.

Even though urban dwellers sometimes choose to use traditional materials for construction, these kinds of dwellings are more frequently found in deep rural areas on land under control of traditional authorities. This is especially true for the Eastern Cape and KwaZulu-Natal. During the period 2001 to 2011, it was observed that more and more South African households have chosen to replace their traditional dwellings with formal structures. This section will explore the dynamics related to traditional housing using primarily GHS (2002–2014) and Census (2001 and 2011) data.

13.2 Overview of changes at municipal and district council level between 2001 and 2011

Map 13.1: Percentage distribution of traditional dwellings, Census 2001 and Census 2011





Maps 13.1 and 13.2 on the previous page show that the most significant reduction between 2001 and 2011 in informal dwellings took place in municipalities in Limpopo, parts of the North West, Eastern Cape and KwaZulu-Natal.

Table 13.1: Changes in the number of municipalities with traditional dwellings per province, 2001 and 2011

Province	Number of municipalities 2011	Municipalities with more than 10% traditional dwellings		Average municipal rank 2011 based on % living in traditional dwellings	Provincial rank based on average rank	% municipalities with reduction of 15 percentage points or more between 2001 and 2011	
		Number	Per cent			Number	Per cent
Gauteng	11	0	0,0	25	1	0	0,0
Western Cape	25	0	0,0	59	2	0	0,0
Free State	20	0	0,0	71	3	0	0,0
Northern Cape	27	1	3,7	73	4	0	0,0
North West	18	0	0,0	92	5	0	0,0
Limpopo	25	2	8,0	116	6	8	32,0
Mpumalanga	18	3	16,7	124	7	3	16,7
Eastern Cape	39	22	56,4	151	8	7	17,9
KwaZulu-Natal	51	26	51,0	190	9	19	37,3
Total	**234**	**54**	**23,1**	**-**	**-**	**37**	**15,8**

Source: Census 2001 and Census 2011

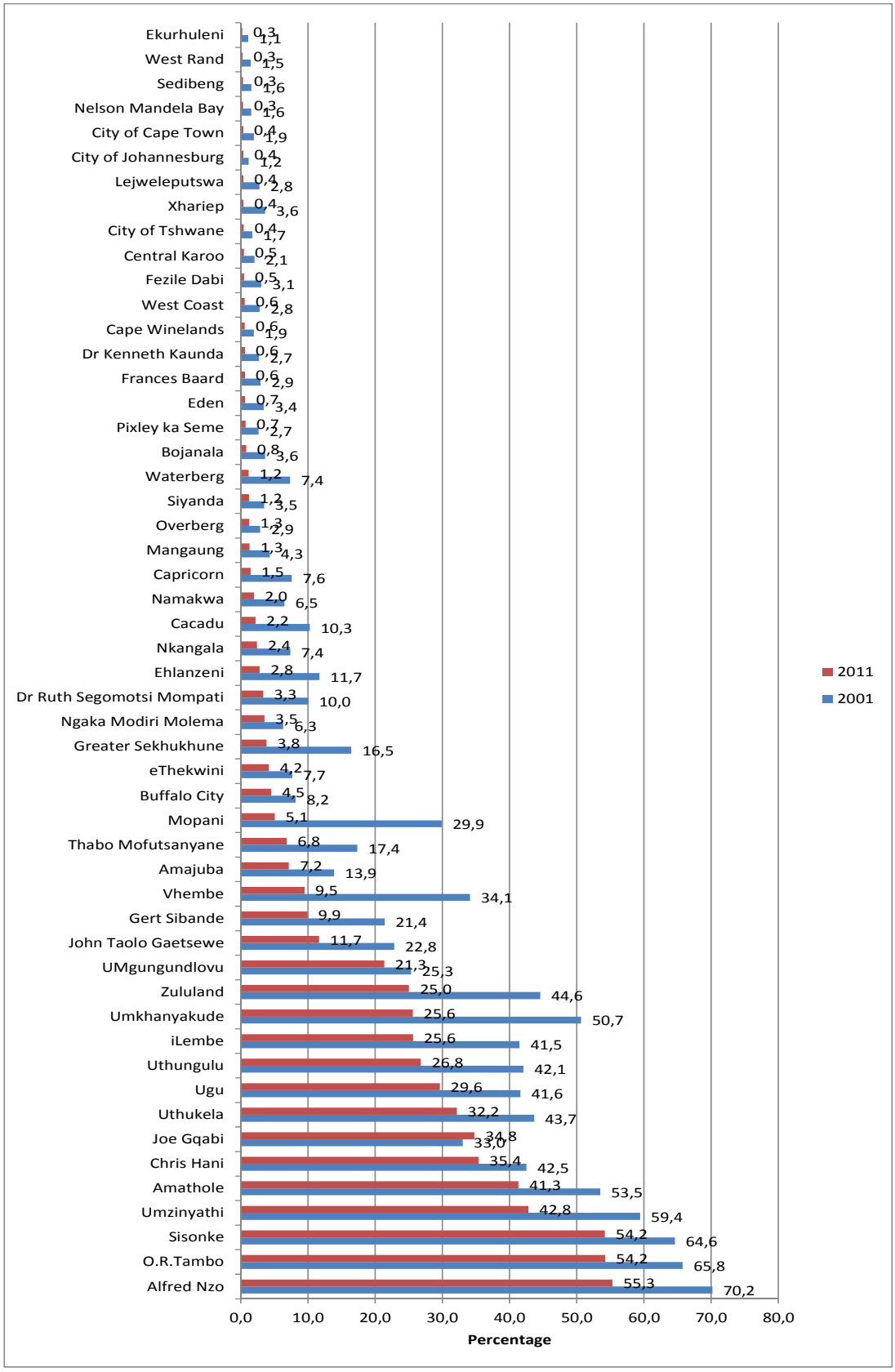
Table 13.1 shows that more than half of the municipalities in KwaZulu-Natal and Eastern Cape have at least 10% traditional dwellings. Even though a smaller percentage of municipalities in Mpumalanga, Limpopo and North West had more than 10% of their dwelling types listed as traditional, these three provinces still had relatively high

ranks in relation to the average rank[6] of their municipalities in this aspect. When considering changes between 2001 and 2011, KwaZulu-Natal and Limpopo fared the best in relation to the percentage of municipalities who reduced the percentage of households living in traditional dwellings by 15 percentage points or more during the reference period.

According to Figure 13.1 on the next page, the district councils with the highest percentages of households living in traditional dwellings are from Alfred Nzo, Sisonke, Amathole, Joe Gqabi and Ugu. However, in all of these district councils, significant reductions in the percentages of households who live in traditional dwellings have taken place between 2001 and 2011.

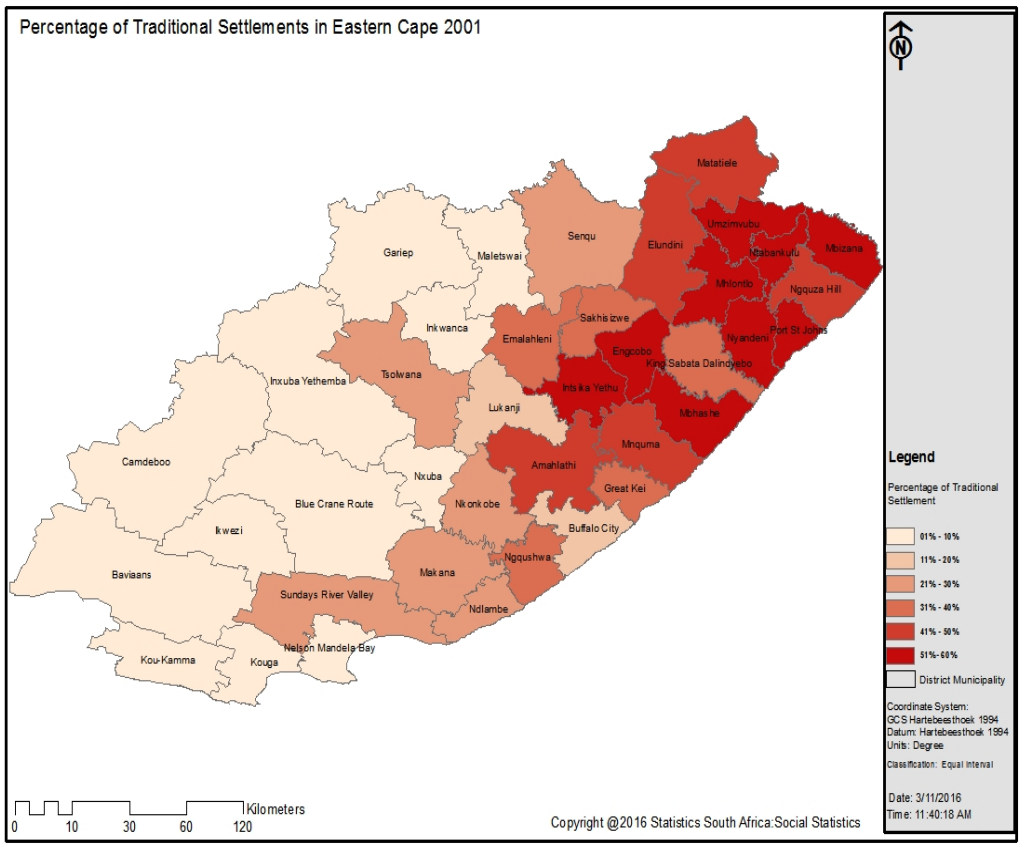
[6] Each municipality in the country was ranked based on the percentage of dwellings in the municipality that are traditional dwellings. Ranks ranged from 1–253. A high rank is associated with a high percentage of traditional dwellings. These ranks were then averaged for all municipalities in a particular province to get a rank for the province based on what is happening in the municipalities in that province. These average ranks were then ranked again from 1–9. A high rank means a high percentage of traditional dwellings present in a large number of municipalities.

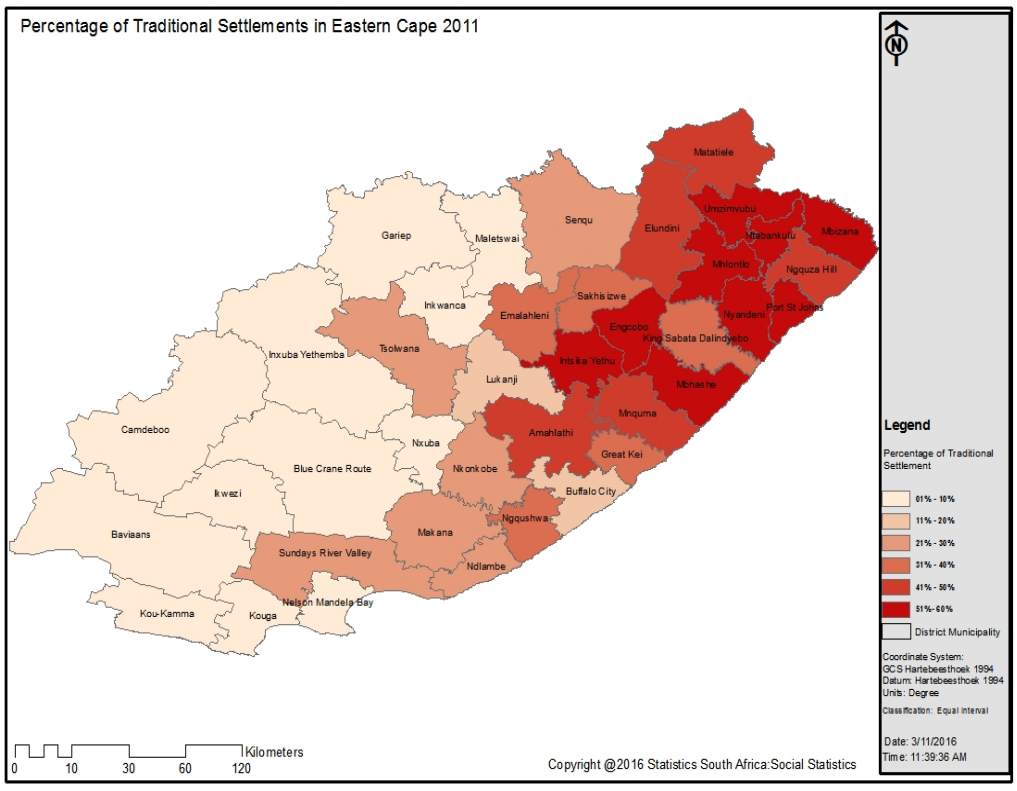
Figure 13.1: Percentage of households living in traditional dwellings by district council, 2001 and 2011



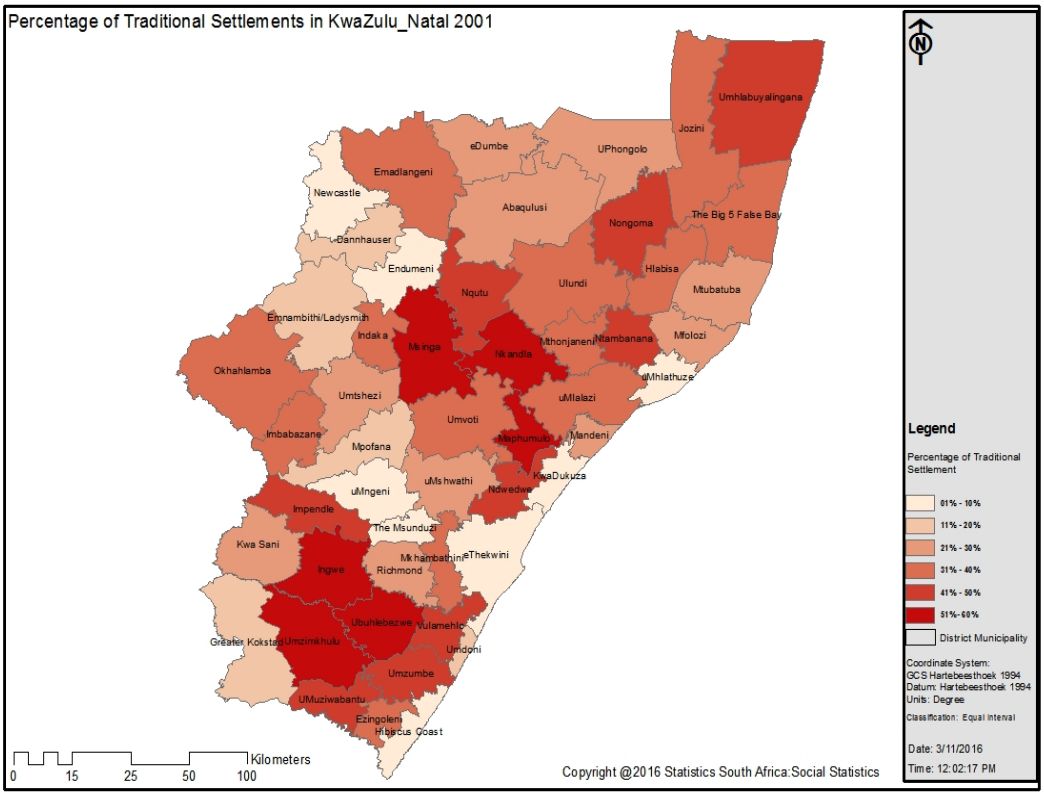
Source: Census 2001 and Census 2011

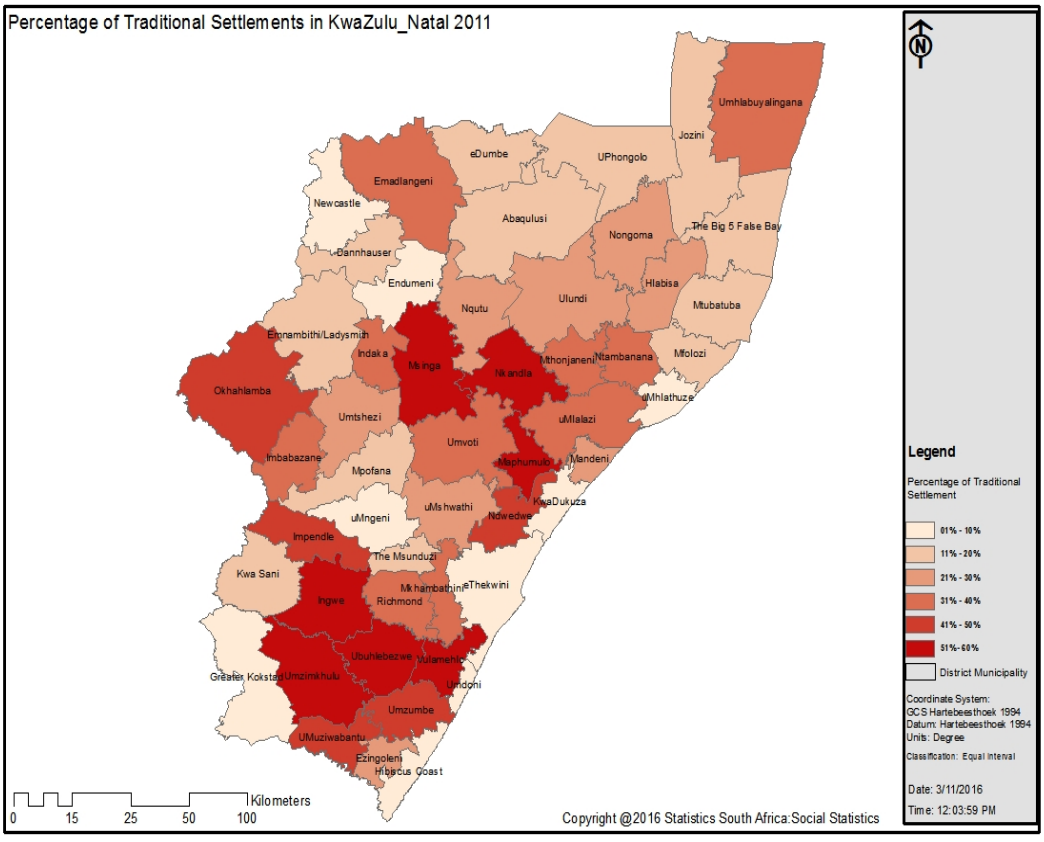
Map 13.2: Percentage distribution of traditional dwellings per municipality in Eastern Cape, 2001 and 2011





Map 13.3: Percentage distribution of traditional dwellings per municipality in KwaZulu-Natal, 2001 and 2011





The preceding maps illustrate the spatial locations of the decreases in the percentage of households living in traditional dwellings in Eastern Cape and KwaZulu-Natal between 2001 and 2011. Progress has been most significant in the north eastern parts of KwaZulu-Natal and the south eastern municipalities of Eastern Cape.

Table 13.2: Top and bottom 10 municipalities with the biggest percentage point reduction in traditional dwellings, 2001 and 2011

Municipality	Province	Households living in traditional dwellings (per cent)		% point reduction	Rank Top 20 municipalities with the biggest percentage point reduction in traditional dwellings between 2001 and 2011
		2001	2011		
960	Limpopo	53,2	9,4	-43,8	1
583	KwaZulu-Natal	55,5	21,4	-34,1	2
965	Limpopo	44,9	11,3	-33,6	3
966	Limpopo	40,9	13,0	-27,9	4
580	KwaZulu-Natal	61,3	34,2	-27,1	5
584	KwaZulu-Natal	44,4	17,4	-27,0	6
272	Eastern Cape	44,3	18,9	-25,4	7
862	Mpumalanga	53,8	29,5	-24,3	8
575	KwaZulu-Natal	58,4	35,7	-22,7	9
962	Limpopo	27,0	4,4	-22,5	10
586	KwaZulu-Natal	36,6	14,8	-21,7	11
961	Limpopo	25,1	4,1	-21,0	12
968	Limpopo	25,3	5,0	-20,3	13
588	KwaZulu-Natal	65,7	45,6	-20,1	14
589	KwaZulu-Natal	55,4	36,3	-19,1	15
273	Eastern Cape	54,9	36,2	-18,7	16
587	KwaZulu-Natal	41,6	22,9	-18,7	17
582	KwaZulu-Natal	59,6	41,0	-18,7	18
529	KwaZulu-Natal	36,8	18,2	-18,7	19
593	KwaZulu-Natal	67,51	48,91	-18,6	20

Source: Census 2001 and Census 2011

Limpopo and North West had more than 10% of their dwelling types listed as traditional. These two provinces still have relatively high ranks in relation to the average rank[7] of their municipalities in this aspect. When considering changes between 2001 and 2011, KwaZulu-Natal and Limpopo fared the best in relation to the percentage of municipalities who reduced the percentage of households living in traditional dwellings by 15 percentage points or more during the reference period.

The table above shows that even though the percentage of households who find themselves in traditional dwellings has decreased significantly since 2001 in all provinces, the most significant percentage point reduction took place in Limpopo and KwaZulu-Natal during the reference period.

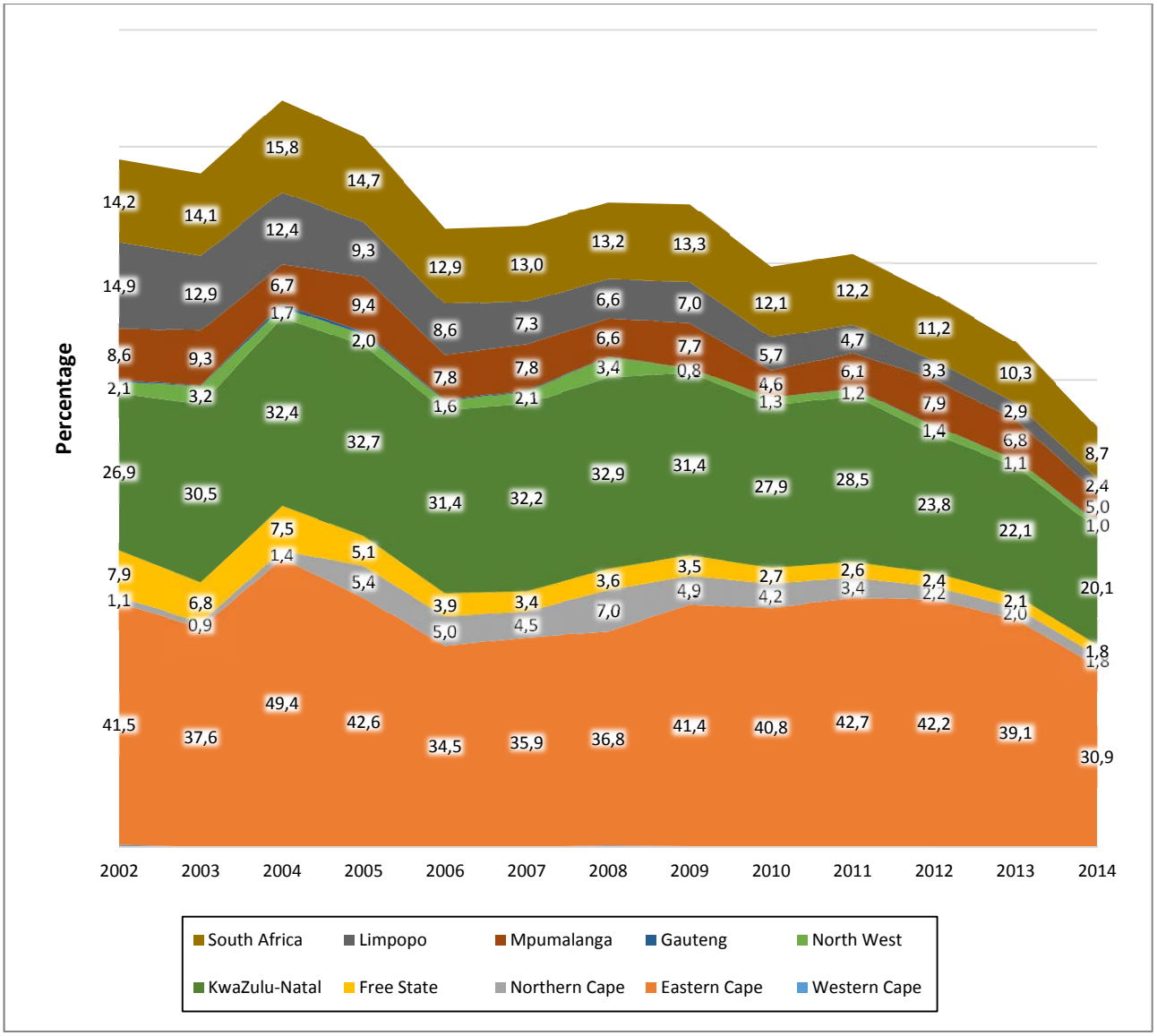
[7] Each municipality in the country was ranked based on the percentage of dwellings in the municipality that are traditional dwellings. Ranks ranged from 1–253. A high rank is associated with a high percentage of traditional dwellings. These ranks were then averaged for all municipalities in a particular province to get a rank for the province based on what is happening in the municipalities in that province. These average ranks were then ranked again from 1–9. A high rank means a high percentage of traditional dwellings present in a large number of municipalities.

Map 13.4: Formal dwelling structures in a tribal area in Limpopo, 2015

Satellite image 2015

The satellite image above, which was taken in Limpopo in 2015, shows the expansion of formal dwellings into areas that previously did not have any structures. These structures are usually built on land governed by traditional land tenure systems and take place without formal cadastre planning and access to basic services.

Figure 13.2: Percentage of the South African population living in traditional dwellings by province, 2002–2014



Source: GHS 2002-2014

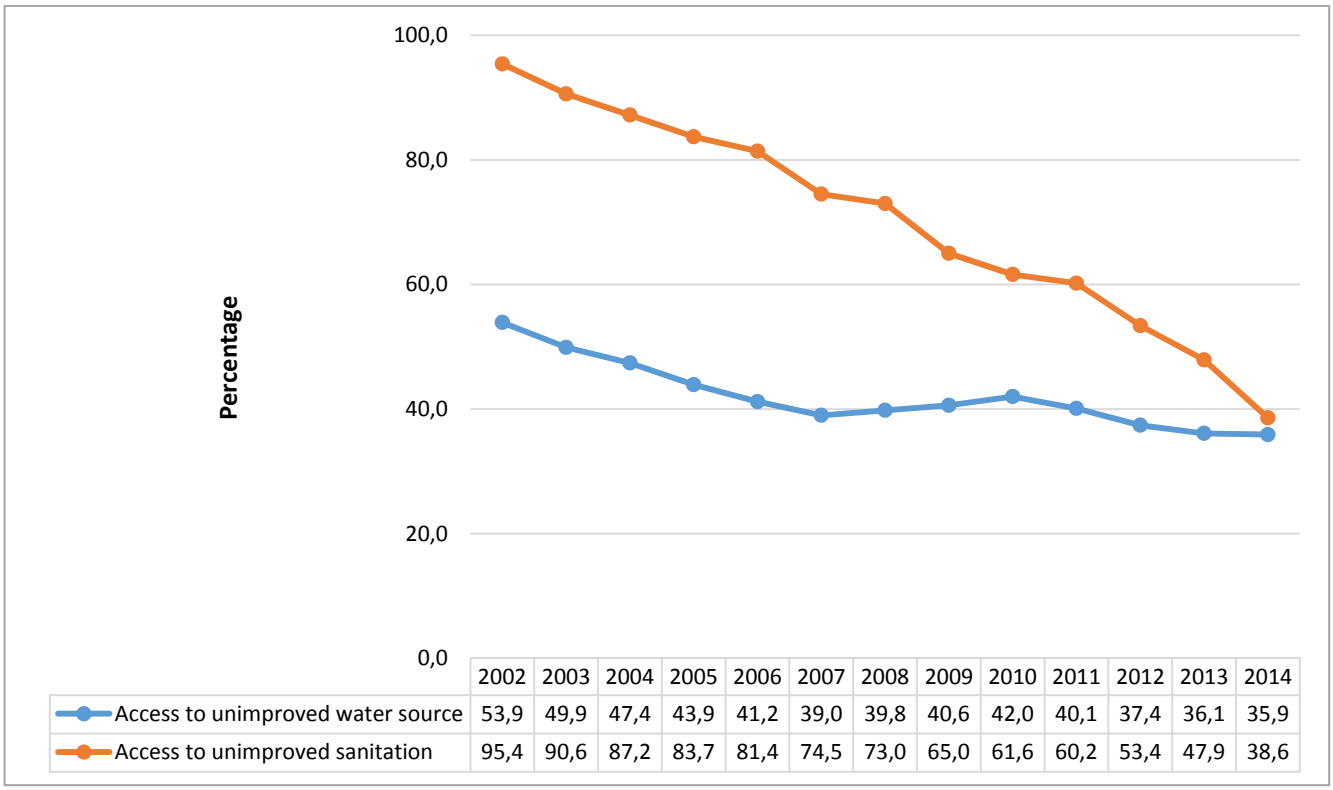
According to the figure, there was a downward trend in the percentage of South Africans who lived in traditional dwellings between 2002 and 2014. This is evidenced by close to nine per cent of the population that lived in traditional dwellings in 2014 compared to about 14% in 2002, with the highest percentage of traditional dwellers recorded in 2004 (16%).

Eastern Cape had by far the highest proportion of persons living in traditional dwellings, since it consistently had around four out of every ten people living in such dwellings. Noteworthy is that in 2004, close to half of the population in Eastern Cape lived in traditional dwellings. This province experienced a 10,6 percentage point drop in persons who occupied traditional dwellings between 2002 and 2014 (from 41,5% to 30,9%).

The second highest prevalence of traditional dwellers was found in KwaZulu-Natal and for the most part of the reference period, almost three out of ten people in this province lived in traditional dwellings. Western Cape and Gauteng had the lowest proportion of persons who lived in traditional dwellings, with both provinces having had less than one per cent of their respective household populations living in such dwellings.

13.3 Access to basic services and alternative housing

Figure 13.3: Percentage of households living in traditional dwellings by access to unimproved services, 2002–2014



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Access to unimproved water source	53,9	49,9	47,4	43,9	41,2	39,0	39,8	40,6	42,0	40,1	37,4	36,1	35,9
Access to unimproved sanitation	95,4	90,6	87,2	83,7	81,4	74,5	73,0	65,0	61,6	60,2	53,4	47,9	38,6

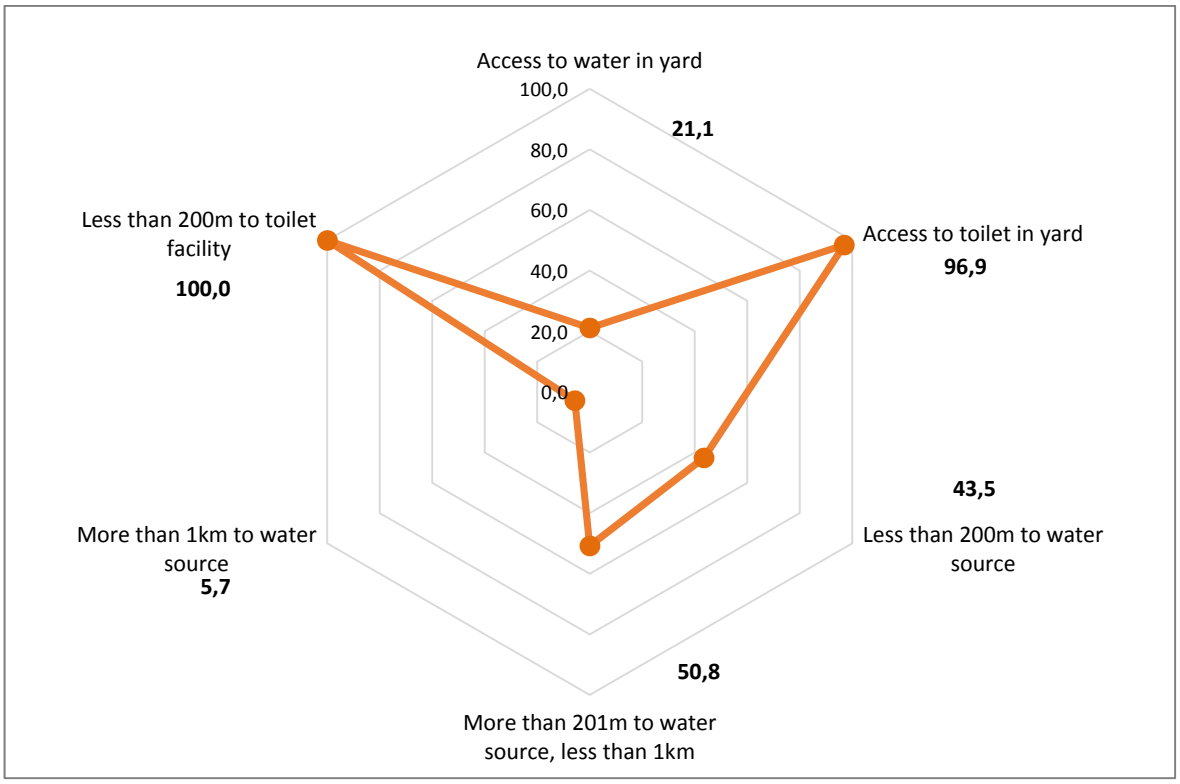
Source: GHS 2002-2014

The figure shows that in 2002, eight years into democracy, more than 95% of households in traditional dwellings still accessed unimproved sanitation. In the period since 2002, the proportion of households that had access to unimproved sanitation has decreased quite steeply, reflected by a sixty per cent decline (fifty-seven percentage point decrease) in households who accessed such sanitation facilities in 2014.

Unimproved water sources include wells, springs, and surface water such as rivers, dams, lakes, ponds, streams, and canals. It also includes water delivered by tanker trucks.

Slightly more than half of South African households in traditional dwellings accessed water from unimproved water sources in 2002; however, the graph shows that there is a steady decline in the proportion of households with such access. The latest data available, as per the graph, show that in 2014, about 36% of households in traditional dwellings made use of unimproved water sources.

Figure 13.4: Percentage distribution of households living in traditional dwelling by access to water source and toilet facilities, 2014



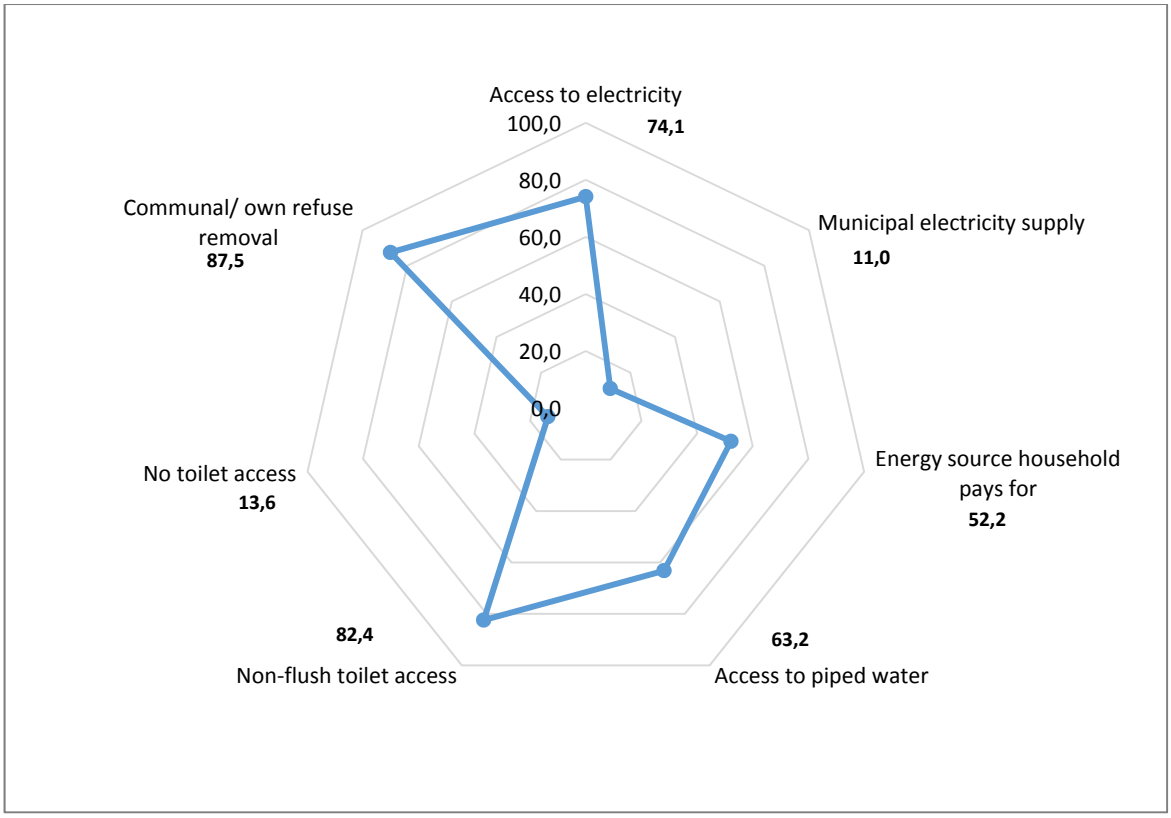
Source: GHS 2014

The figure shows that close to 97% of households in traditional dwellings had access to some toilet facility inside their yard, and most of those households that did not have access inside their yard walked less than two hundred metres to a toilet facility in 2014.

Only about two out of ten households in traditional dwellings had a water source inside their yard in 2014, while 44% of households who did not have a water source inside their yard travelled up to two hundred metres to a water source.

Only about half of households in traditional dwellings accessed water further than 200 metres but not more than one kilometre away, and roughly 6% of households walked further than one kilometre for water.

Figure 13.5: Percentage of households living in traditional dwellings by access to services, 2014

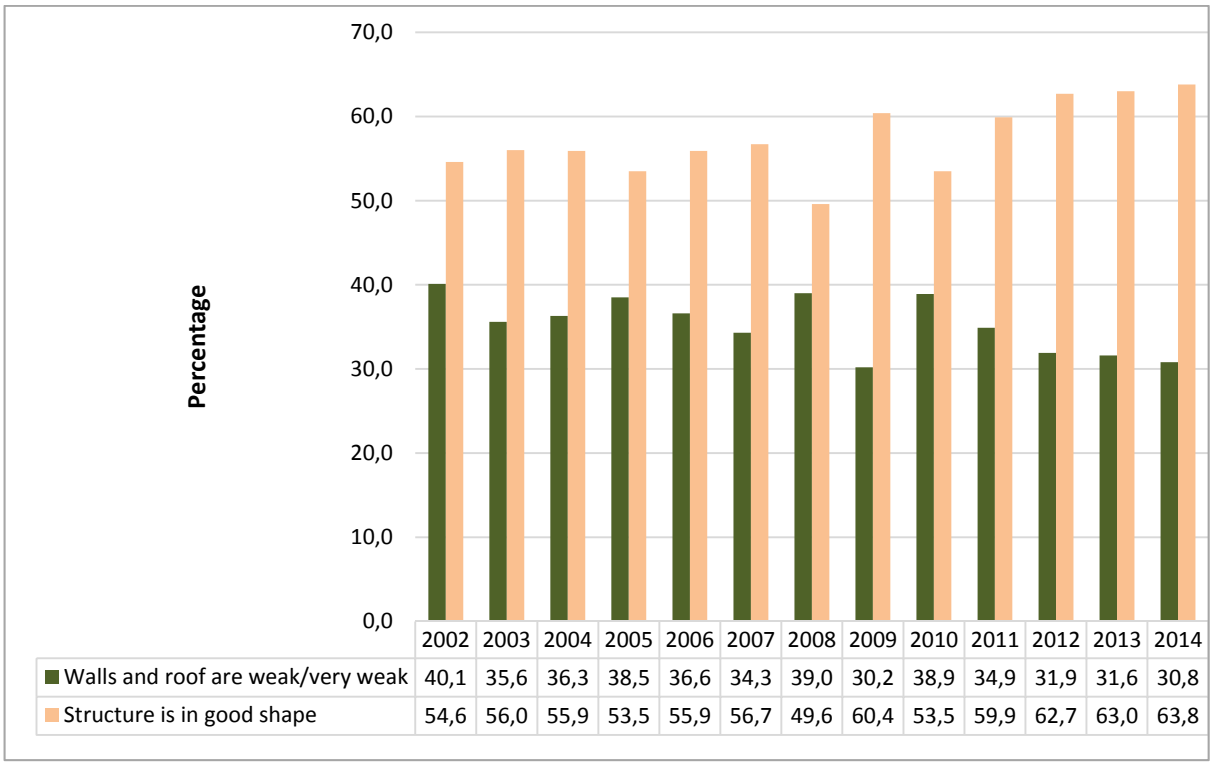


Source: GHS 2014

According to Figure 13.5, almost three out of four households in traditional dwellings had access to electricity, yet only eleven per cent of such households' electricity was supplied by municipalities. Furthermore, more than half of households in traditional dwellings access an energy source that they do pay for.

More than 63% of households in traditional dwellings had access to piped water in 2014, but 82% used non-flush toilets and almost 14% did not have any access to a toilet facility. Close to nine out of ten households in traditional dwellings removed their own refuse.

Figure 13.6: Percentage of households living in traditional dwelling types by how they perceived the condition of their dwelling structures, 2002–2014



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Walls and roof are weak/very weak	40,1	35,6	36,3	38,5	36,6	34,3	39,0	30,2	38,9	34,9	31,9	31,6	30,8
Structure is in good shape	54,6	56,0	55,9	53,5	55,9	56,7	49,6	60,4	53,5	59,9	62,7	63,0	63,8

Source: GHS 2002-2014

There are more households in traditional dwellings of which the dwelling structure is in good shape, than those who live in structures that are weak or very weak. Moreover, as the years have progressed from 2002 to 2014, households reporting that they live in dwelling units that had weak or very weak walls and/or a roof have been steadily decreasing, while those in good condition have increased.

Table 13.3 on the next page shows that there were more households who were living in a traditional structure who did not have members on a RDP waiting list, than those who had. More specifically, there were no households in Western Cape and Gauteng who had members on a waiting list. However, these are also the provinces with relatively few households who live in traditional structures. North West (37%) had the highest proportion of households with members on an RDP waiting list, while about one in every three households in Mpumalanga had at least one member on that list.

More than five per cent of households in Mpumalanga had members who have been waiting for longer than ten years for a government-subsidised house, whereas close to two per cent of households in Eastern Cape had been waiting that long. It seems as if most households who had at least one member on the waiting list have been waiting between one and three years.

Table 13.3: Percentage distribution of households living in traditional dwellings with at least one member on the waiting list for an RDP house, and the number of years that they have been on that waiting list by province, 2013

Households in traditional dwellings on waiting list and years	Western Cape	Eastern Cape	Northern Cape	Free State	KwaZulu-Natal	North West	Gauteng	Mpumalanga	Limpopo
A member on waiting list	*	16,3	13,2	29,7	28,6	37,2	*	33,9	17,2
No member on waiting list	100,0	83,7	86,8	70,3	71,4	62,8	100,0	66,1	82,8
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**
Years members have been on the waiting list									
1–3 years	*	12,4	13,2	23,4	24,7	28,9	*	14,3	13,2
4–7 years	*	1,9	*	4,1	2,2	5,5	*	11,4	2,5
8–10 years	*	0,2	*	2,2	0,5	2,8	*	2,8	*
Longer than 10 years	*	1,8	*	*	1,2	*	*	5,5	1,5
Not applicable	100,0	83,7	86,8	70,3	71,4	62,8	100,0	66,1	82,8
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

Source: GHS 2013

13.4 Socio-economic characteristics of households living in traditional dwellings

Table 13.4: Percentage of households living in traditional dwellings with at least one member employed, and the per capita income quintile of the household, 2009–2014

	2009	2010	2011	2012	2013	2014
Employment status						
At least one person employed in household	41,6	37,1	42,1	43,4	45,6	43,0
None employed in household	58,4	62,9	57,9	56,6	54,4	57,0
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**
Household income quintile						
Poorest quintile	46,5	40,5	36,2	38,8	43,6	46,1
Quintile 2	29,8	33,7	35,5	33,1	31,8	32,8
Quintile 3	16,6	18,0	19,3	18,8	18,2	14,6
Quintile 4	5,8	6,6	7,0	6,7	5,2	4,6
Richest quintile	1,3	1,3	1,9	2,6	1,2	1,9
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

Source: GHS 2009-2014

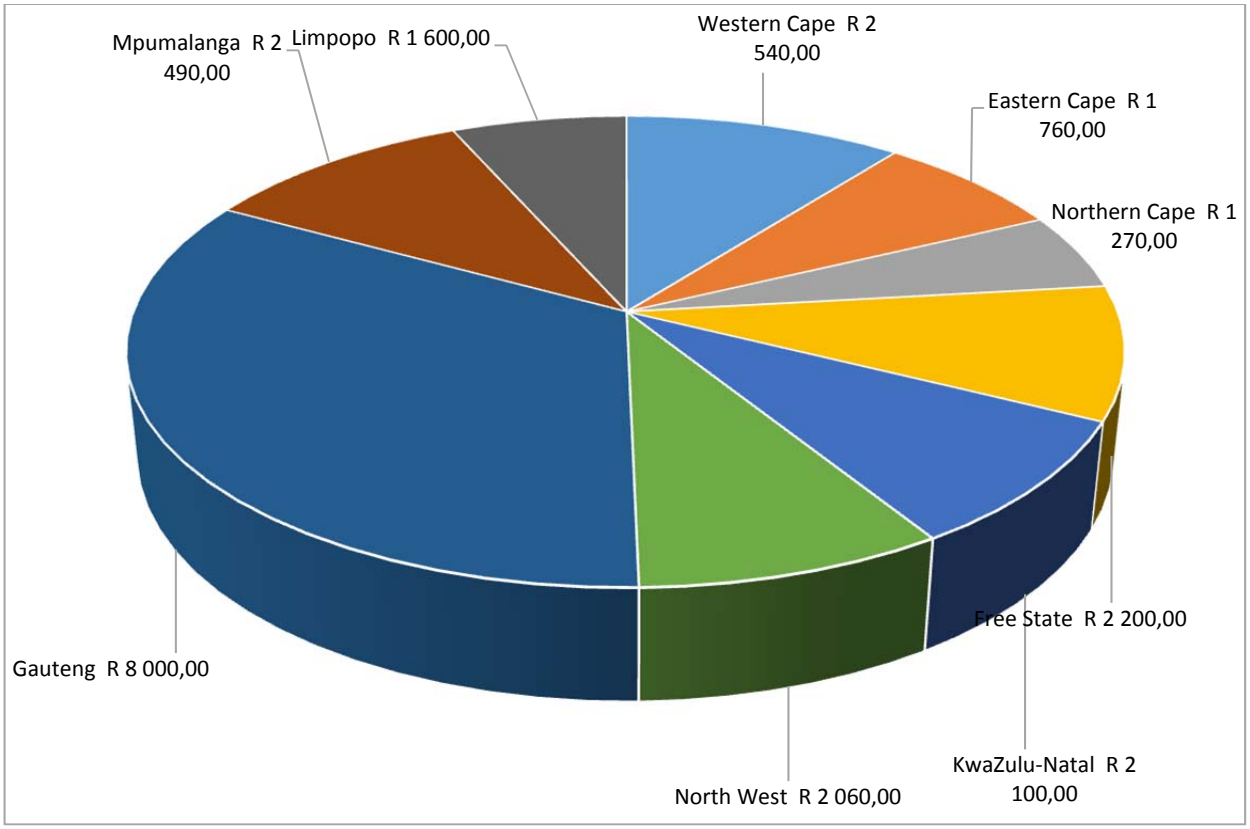
More than half of households in South Africa living in traditional dwellings did not have any member of the household employed during the reference period. However, the situation was at its worst in 2010, when as much as 63% of households did not have an employed household member. In 2014, about four out of ten households in traditional dwellings had at least one employed individual.

In 2014, 46,1% of the households living in these dwellings were from the lowest income quintile. During the reference period, more than seven out of ten households in traditional dwellings were in the two lowest income quintiles, while more than nine out of ten households were in the three lowest income quintiles.

The figure on the next page shows the median income of households in traditional dwellings by province in 2014. Gauteng had the highest median household income (R8 000,00), followed by Western Cape (R2 540,00), while Mpumalanga (R2 490,00) also showed a relatively high level of median income when compared to other provinces.

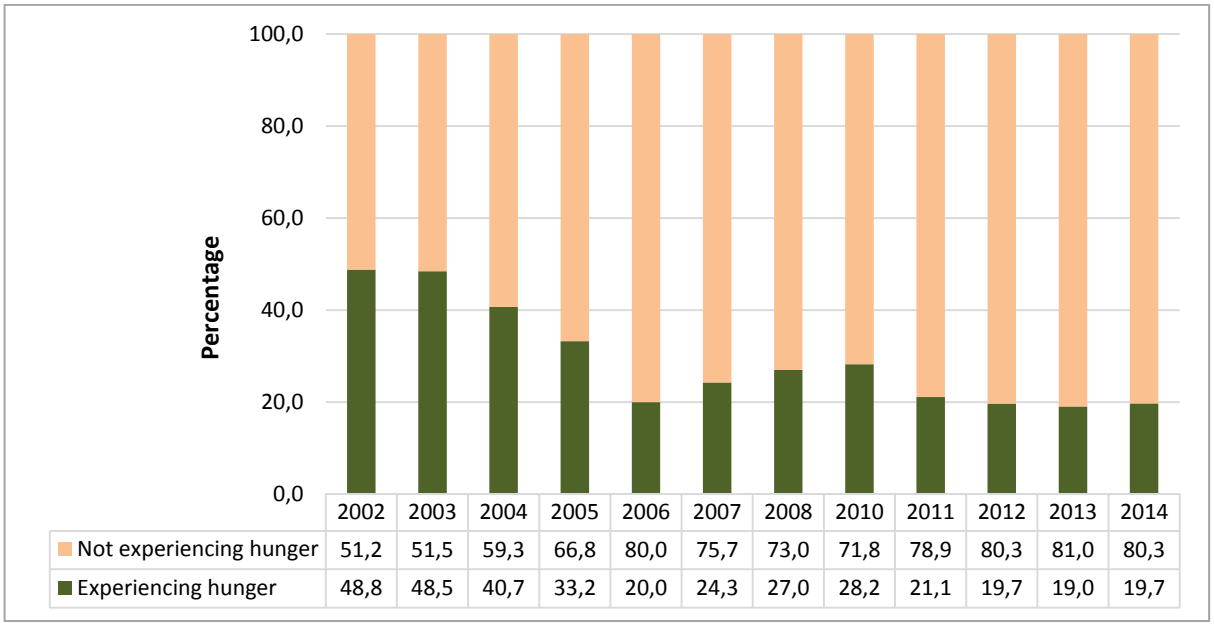
Northern Cape (R1 270,00) had the lowest household median income in the country, with Limpopo (R1 600,00) and Eastern Cape (R1 760,00) in second and third places in 2014.

Figure 13.7: Median income of households living in traditional dwellings by province, 2014



Source: GHS 2014

Figure 13.8: Percentage of households living in traditional dwellings that experienced hunger, 2002–2014

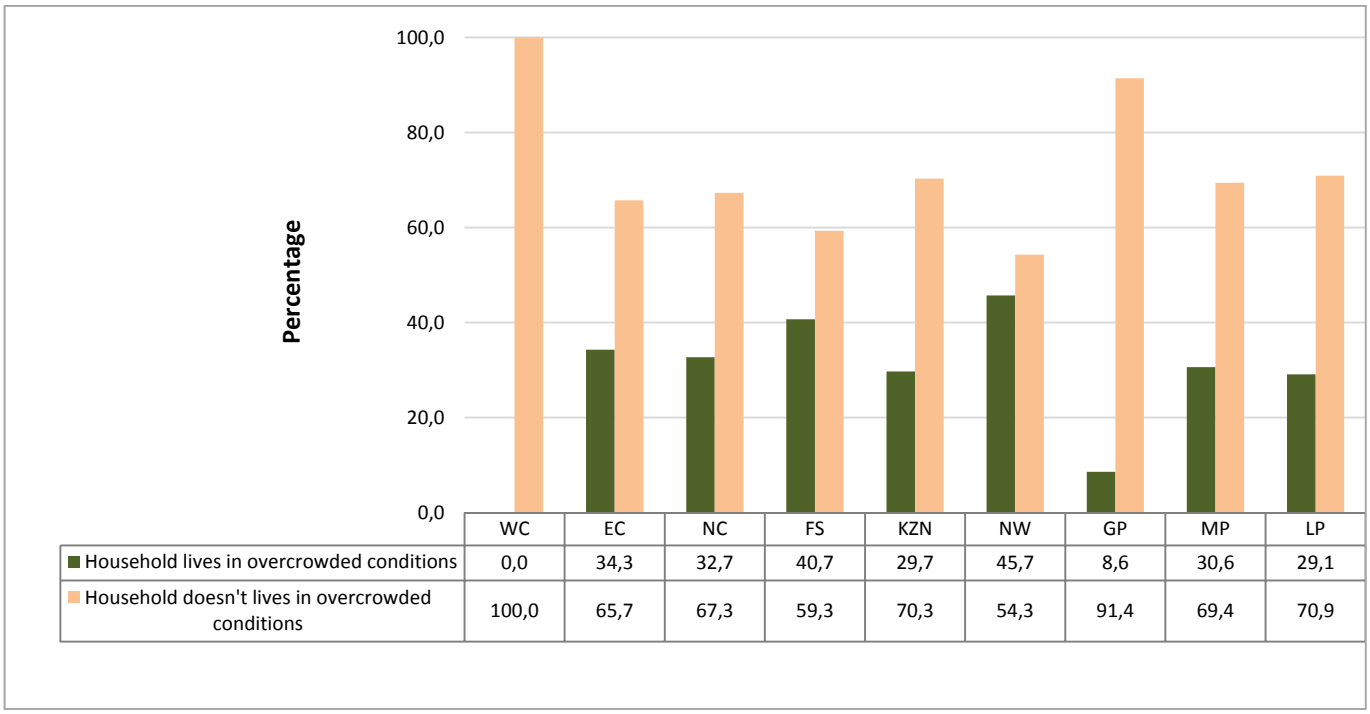


	2002	2003	2004	2005	2006	2007	2008	2010	2011	2012	2013	2014
Not experiencing hunger	51,2	51,5	59,3	66,8	80,0	75,7	73,0	71,8	78,9	80,3	81,0	80,3
Experiencing hunger	48,8	48,5	40,7	33,2	20,0	24,3	27,0	28,2	21,1	19,7	19,0	19,7

Source: GHS 2010-2014

The percentages of households that experienced hunger decreased from 49% in 2002 to 20% in 2014.

Figure 13.9: Percentage distribution of households living in overcrowded conditions in traditional dwellings by province, 2014



	WC	EC	NC	FS	KZN	NW	GP	MP	LP
Household lives in overcrowded conditions	0,0	34,3	32,7	40,7	29,7	45,7	8,6	30,6	29,1
Household doesn't lives in overcrowded conditions	100,0	65,7	67,3	59,3	70,3	54,3	91,4	69,4	70,9

Source: GHS 2014

Western Cape had no households who lived in overcrowded dwellings, whereas only nine per cent of traditional dwellings were overcrowded in Gauteng. In contrast to this, North West (46%) had the highest proportion of households living in overcrowded traditional dwellings, while four out of ten households in Free State experienced overcrowded living conditions. Close to three out of ten households in Eastern Cape, Northern Cape, KwaZulu-Natal, Mpumalanga and Limpopo reported living in overcrowded traditional dwellings.

Table 13.5: Percentage of persons aged 0–4 years living in traditional dwellings by exposure to early childhood development, 2009–2014

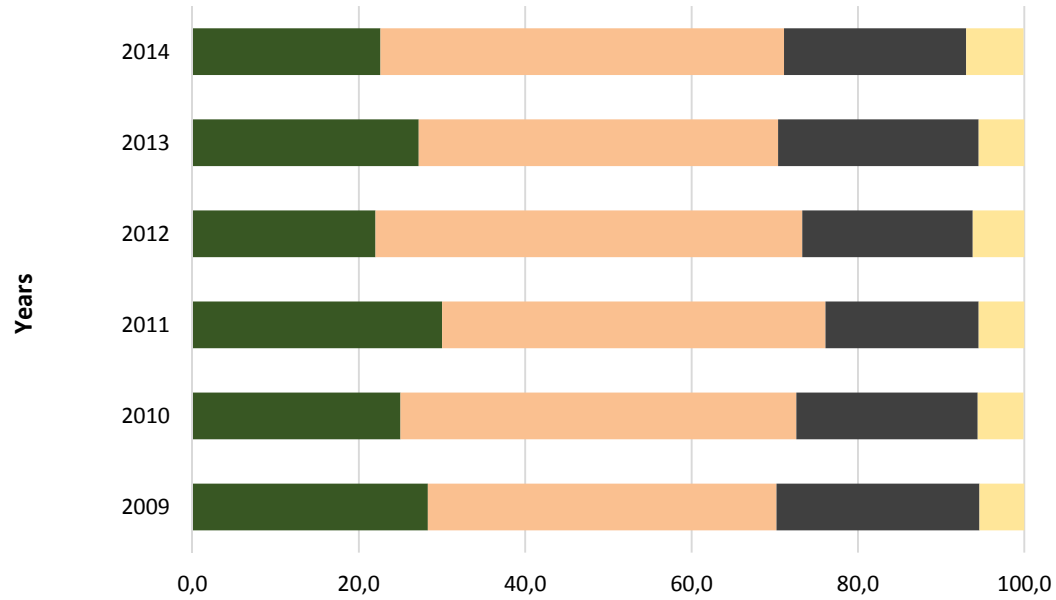
		2009	2010	2011	2012	2013	2014
Exposed to ECD	0–1 year old	7,2	12,5	13,6	23,5	15,8	17,6
	2–3 years old	11,3	23,0	24,2	35,3	27,8	24,8
	4 years old	11,1	13,7	13,4	20,8	18,8	17,9
	Total	**29,6**	**49,2**	**51,2**	**79,7**	**62,5**	**60,2**
Not exposed to ECD	0–1 year old	30,5	22,3	22,2	1,9	19,4	21,9
	2–3 years old	29,2	21,6	19,7	7,0	15,3	14,1
	4 years old	10,7	6,9	6,9	11,4	2,9	3,8
	Total	**70,4**	**50,8**	**48,8**	**20,3**	**37,5**	**39,8**
Total		**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

Source: GHS 2009-2014

Table 13.5 shows that more than two-thirds of children living in traditional housing (70%) in 2009 were not exposed to early childhood development (ECD). The proportion of children not exposed to ECD declined to almost 40% in 2014. As expected, children between the ages of zero and one year old made up the largest part of those who were not exposed to ECD, whereas roughly a tenth of four-year-old children did not attend ECD centres in 2009. Non-attendance for this age group declined to four per cent in 2014.

The percentage of children exposed to ECD increased from nearly 30% in 2009, peaked at almost 80% in 2012, and then declined again to 60% in 2014. There has also been a gradual increase of children in the age group '0–1 years' who were exposed to ECD, although children between two and three years old consistently made up the highest proportion of children exposed to ECD during the reference period.

Figure 13.10: Percentage of persons who attend pre-school up to high school living in traditional dwellings by the time it takes to reach school, 2009–2014



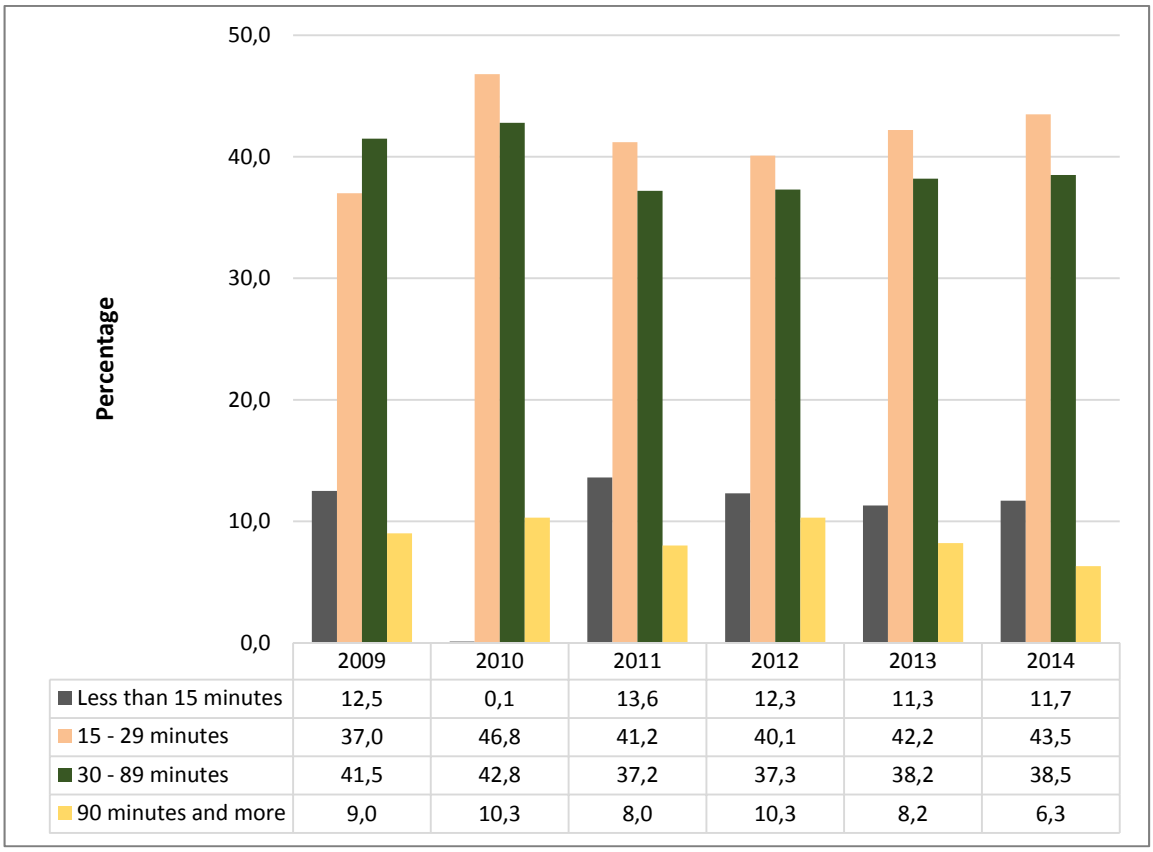
	2009	2010	2011	2012	2013	2014
Less than 15 minutes	28,3	25,0	30,0	22,0	27,2	22,6
15 - 30 minutes	41,9	47,6	46,1	51,3	43,2	48,5
31 - 60 minutes	24,4	21,8	18,4	20,5	24,1	21,9
More than 60 minutes	5,4	5,5	5,5	6,2	5,5	6,9

Source: GHS 2009-2014

Less than thirty per cent of pre-schoolers and young persons in high school that are living in traditional dwellings took less than fifteen minutes to travel to school throughout the reference period. The predominant proportion of school-going children spent between fifteen and thirty minutes to get to school, and roughly two out of ten learners spent between thirty and sixty minutes to get to school. Around six per cent of learners needed more than an hour to get to school between 2009 and 2014.

13.5 Transport and travel times of households living in traditional dwellings

Figure 13.11: Percentage of households living in traditional dwellings by the time it takes to reach their nearest health facility, 2014



	2009	2010	2011	2012	2013	2014
Less than 15 minutes	12,5	0,1	13,6	12,3	11,3	11,7
15 - 29 minutes	37,0	46,8	41,2	40,1	42,2	43,5
30 - 89 minutes	41,5	42,8	37,2	37,3	38,2	38,5
90 minutes and more	9,0	10,3	8,0	10,3	8,2	6,3

Source: GHS 2009-2014

In 2009, nearly four in ten households (42%) in traditional dwellings spent between 30 and 90 minutes to reach a health facility; a further 37% took between 15 and 29 minutes, while less than ten per cent took longer than 90 minutes to reach their nearest health facility.

By 2014, a slight shift had taken place with fewer households travelling 30 minutes or more to reach a health facility and a further 38,5% spending more than 30 minutes, but less than 90 minutes to access a health centre.

13.6 Summary and conclusion

The percentage of South Africans who lived in traditional dwellings between 2002 and 2014 decreased from 14% in 2002 to 9% in 2014. Inhabitants of the Eastern Cape were the most likely to live in traditional dwellings; however, this province has also experienced the biggest decrease in traditional dwellings between 2002 and 2014 (from 41,5% to 30,9%). In 2014, KwaZulu-Natal (20,1%) had the second highest proportion of households living in traditional dwellings. More than half of the municipalities in KwaZulu-Natal and Eastern Cape had at least 10% traditional dwellings. KwaZulu-Natal and Limpopo fared the best when considering general decreases in the percentage of households living in traditional dwellings, as well as the municipalities who reduced the percentage of households living in traditional dwellings between 2001 and 2011.

District councils with the highest percentages of households living in traditional dwellings in 2011 were Alfred Nzo, Sisonke, Amathole, Joe Gqabi and Ugu. However, in all of these district councils, significant reductions in the percentages of households who live in traditional dwellings have taken place between 2001 and 2011.

The data suggests that households in traditional dwellings increasingly enjoy access to better basic services, even though they still tend to lag behind other dwelling types in this regard. Furthermore, the actual conditions of the walls and/or roof of those dwellings also seem to be improving. Between 2002 and 2014, the percentage of households who accessed unimproved sanitation decreased from 95% to 39%. Slightly more than half of South African households in traditional dwellings accessed water from unimproved water sources in 2002, but this improved to 36% in 2014. In 2014, 97% of households also had access to a toilet facility in their yard. Over the reference period, the percentage of households who describe their dwellings as having at least weak walls and roofs decreased from 40% to 31%.

Most households living in traditional structures do not have any household members on waiting lists for RDP/state-subsidised housing. North West (37%) and Mpumalanga (34%) had the highest proportion of households with members on an RDP/subsidised dwelling waiting list.

Households living in traditional dwellings were visibly affected by the 2008 recession in that in 2010 as many as 6 out of 10 households did not have any employed household member; however, this improved slightly to 58% in 2014. About 7 out of 10 households in traditional dwellings were from quintiles 1 and 2. North West (46%) had the highest proportion of households living in overcrowded traditional dwellings, followed by 4 out of 10 households in Free State. Approximately 20% of households experienced hunger in 2014.

Most school-going children living in traditional dwellings spent between fifteen and thirty minutes to get to school and only approximately six per cent needed more than an hour to get to school between 2009 and 2014.

14. Adequate housing index

14.1 Introduction

One of the difficulties faced by planners dealing with human settlements and housing, is to find ways to measure progress towards the goal of achieving adequate housing, given that it is a multi-dimensional concept. For this reason a prototype adequate housing index was developed for illustrative purposes as part of this report. Ideally, this index should be based on a data source that provides sub-provincial data, but for the moment the most comprehensive data source that measures most of the dimensions of adequate housing is the GHS 2014 which can only provide reliable estimates up to provincial level.

14.2 Dimensions and indicators used in the adequate housing index

The Alkire Foster method was used for the development of this index. This method firstly entails defining a set of relevant indicators within required domains, deciding on a threshold of satisfaction for each indicator in such a way that if the household does not reach it, their housing situation is considered inadequate. These indicators were then coded and a score of one was allocated when a household is deprived and 0 if the household is not deprived. Next a weight or deprivation value was assigned to each indicator. A summary of the weights used can be found in Table A1 in the Appendix. The total housing inadequacy score is calculated per household by summing the weighted deprivations across all dimensions and indicators. A threshold score of adequate housing deprivation of 33% was then used to decide whether a household has access to adequate housing or not. The table below summarises the dimensions and indicators used for the compilation of the adequate housing index.

Table 14.1: The dimensions and indicators for the adequate housing index

Dimension		Indicator
Tenure security and adequacy of dwelling	1	Do not fully or partially own dwelling
	2	Ownership of dwelling is traditional or informal (tenure insecurity of land on which structure was built is not as good as full title)
	3	Do not live in formal dwelling
	4	Material used for floor of main dwelling rudimentary i.e. soil, cardboard or rough wooden planks etc.
	5	Walls not in good or very good condition
	6	Roof not in good or very good condition
	7	Number of people per room more than 1
Access to basic services	8	No access to piped water in dwelling, yard or within 200 metres from dwelling
	9	No access to flush toilet, improved pit latrine or chemical toilet
	10	Refuse is not removed at least once a week
	11	Do not use electricity for lighting
	12	Use solid fuels for cooking
	13	Do not have access to mobile or landline telephone
Access-ibility Afforda-bility Location	14	Households who do not own a dwelling and who are not benefiting from an RDP or state-subsidised house
	15	Spend more than 50% of income on housing
	16	Further than 30 minutes from educational institution
	17	Within 30 minutes from work opportunities
	18	Further than 30 minutes from nearest health facility

As indicated in the preceding table three dimensions were identified for adequate housing. These are tenure security and adequacy of the dwelling, access to basic services and a composite domain consisting of accessibility,

affordability and location. Each of these domains were allocated an equal weight of 0,33. A total of 18 indicators were identified across these three domains as summarised in Table 14.1.

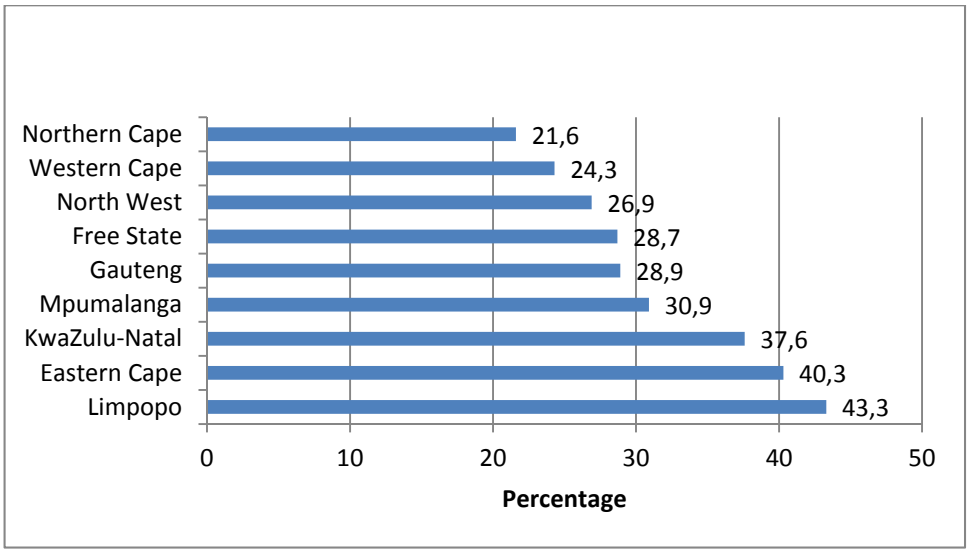
14.3 Distribution of the adequate housing index

Table 14.2 Deprivation head count, intensity and index per province

Province	Deprivation head count (H)	Deprivation intensity (A)	Adequate housing index (AHI)
Eastern Cape	0,403	0,478	0,193
Limpopo	0,433	0,432	0,187
KwaZulu-Natal	0,376	0,462	0,174
Mpumalanga	0,309	0,429	0,132
Free State	0,287	0,447	0,128
Gauteng	0,289	0,435	0,126
North West	0,269	0,455	0,123
Western Cape	0,243	0,418	0,101
Northern Cape	0,216	0,443	0,096

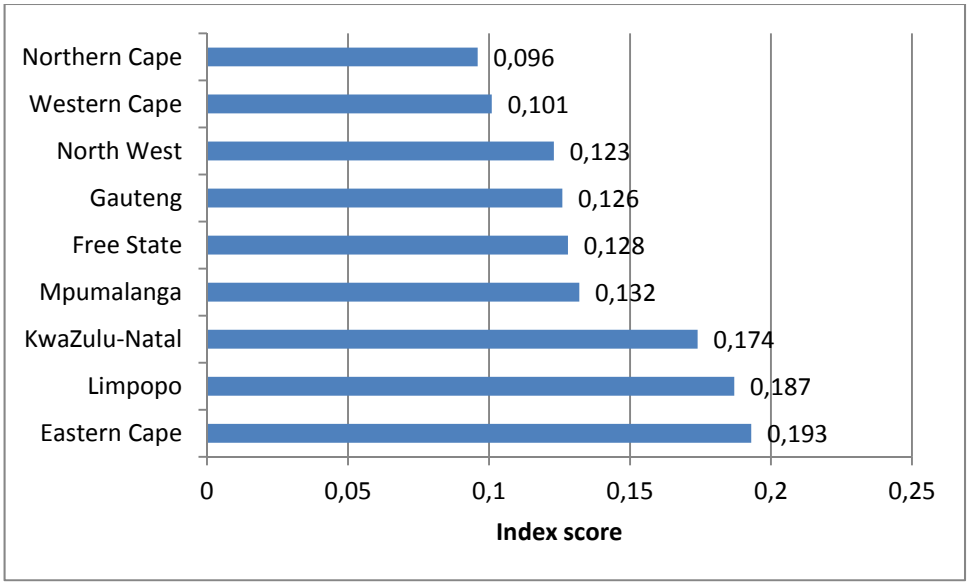
The findings suggest that in terms of the percentage of households (H) who do not have access to adequate housing, Limpopo (43,3%), Eastern Cape (40,3%) and KwaZulu-Natal (37,6%) performed the worst (also see Figure 14.1). Once deprivation intensity (A) is multiplied with the head count to come up with an adequate housing index, Eastern Cape (0,193) is the most deprived, followed by Limpopo (0,187) and KwaZulu-Natal (0,174). North West (0,123), Western Cape (0,101) and Northern Cape (0,096) had the lowest head counts as well as AHI scores (also see Figure 14.2).

Figure 14.1: Percentage of households with inadequate housing per province



Source: GHS 2014

Figure 14.2: AHI scores per province



Source: GHS 2014

Figure 14.2 summarises the final AHI scores per province. A score of 1 means completely inadequate and a score of 0 means completely adequate. The findings indicate that the predominantly rural provinces of Eastern Cape, Limpopo and KwaZulu-Natal have the highest scores for inadequate housing. In the case of Limpopo a lot of progress has been made with regard to the transition to formal housing. However, many of these do not have adequate access to basic services which in a sense reduces the adequacy of these dwellings. Both Eastern Cape and KwaZulu-Natal still have sizable proportions of traditional dwellings with relatively insecure land tenure arrangements. Furthermore, as in the case with Limpopo, access to basic services, especially in remote rural areas is still relatively poor.

15. Conclusions and recommendations

15.1 Conclusions

From the onset this study endeavoured to look at housing within the broader context of the settlements in which they are located and the ideas around the concept of adequate housing. By doing this housing was not only considered from the context of the settlements in which they are located, but also from the perspective of tenure arrangements, access to basic services, adequacy and affordability. The report started by briefly summarising the policy environment as well as taking a closer look at densification that took place in selected metropolitan areas between 2001 and 2011. Theil's entropy index was then used to measure changes in the degree of racial integration and segregation in South African municipalities and metropolitan areas between 1996 and 2011. It was found that some progress has been made during the reference period towards greater racial integration in urban areas. Compared to other metropolitan areas Nelson Mandela Bay, eThekwini and the City of Cape Town performed the worst in terms of integration, whilst when looking at municipal averages within provinces, Gauteng, Free State and Limpopo still have a long way to go if greater integration is to be achieved. It was also found that municipalities with high Multiple Deprivation Index Scores were more likely to have better integration scores than municipalities with low deprivation scores.

The next section dealt with migration by looking at extracts from the Migration Dynamics in South Africa: Census 2011 report published in 2016. Effective urban planning and service delivery is dependent on a better understanding of the flows of people and population growth in particularly urban centres. In this respect Gauteng had the most gains in terms of lifetime migrants (10,9%), followed by Western Cape with 9,4%. In 2014 Gauteng contributed 29% to the overall household population in South Africa compared to 25% in 2002. Black African males aged 25–29 were most likely to migrate. However, this age range was also identified as the peak age range for migration amongst all population groups. In all population groups, except whites, limited migratory movement takes place after the age of 55 years.

In addition to breaking apartheid spatial patterns, increased security of tenure as well as the formalisation and general improvement in adequacy of housing has been one of the goals of housing related policies. Nationally, the percentage of households living in formal dwellings increased from 76% to 80% during the reference period. This signifies that the formalisation of housing arrangements in the country surpassed household growth which points to significant progress in this respect. In spite of the overall progress, the situation of individual households was often in flux. When asked about their housing state five years previously (GHS 2013), 18,1% of households said that they used to live in formal dwellings, but were living in informal dwellings at the time of the survey, whilst 7% placed themselves in informal dwellings 5 years previously, but were living in formal dwellings in 2013. This finding does not necessarily mean that formalisation primarily benefited new households since none of our survey instruments are currently capturing home ownership and housing arrangements of households maintaining dual residences.

Some provinces were more successful than others in improving access to formal housing. In the case of RDP and state subsidised housing Free State set a good example, whereas a province such as Limpopo (where there was relatively little RDP/state-subsidised housing activities), the percentage of households living in formal houses increased from 82% to 94% between 2002 and 2014. Tenure security in addition to providing secure shelter can also protect the household against shocks and stresses, as it can be used as collateral for loans towards overcoming shocks, but also towards investments in livelihoods. Even though there was a general decline in home ownership rates between 2001 and 2011, ownership rates increased in Free State and Eastern Cape. The biggest decline was found in Gauteng (7,6 percentage points) and the age group 20–34 years was most affected. Factors such as the introduction of the Credit Control Act during the second half of the reference period, the world

economic crises as well as the greater availability of rental stock for low-income households in large urban centres may have contributed to this. According to GHS data, rental of formal dwellings increased from 20% to 22% between 2002 and 2014, whilst rental of informal dwellings nearly doubled from 19% to 36% during the same reference period.

Economic pressures on home owners have continued well beyond 2008, as the percentage of households across all income groups who feel that they have problems with the affordability of housing increased from 50,7% to 70,1% between 2009 and 2014. About two-thirds of households in the poorest quintile spent more than 50% of their income on their rent/mortgage costs.

Putting the value of the dwellings occupied by South African households under consideration, stark differences between population groups begin to emerge. More than half of South African households headed by the black Africans lived in dwellings that were valued at less than R50 000, whereas most households headed by Indians/Asians and whites lived in properties valued at R400 000 or more. In terms of the number of rooms in dwellings and per implication size there has been a shift between 2002 and 2014 towards more rooms in formal dwellings and changes from multiple rooms in informal housing to 1 to 2 rooms.

Some relationship has been found between household income status and the kind of dwelling occupied especially in relation to traditional dwellings. The latter were most likely to be occupied by quintile 1 and 2 households, while quintile 5 (wealthiest quintile) households were most likely to live in formal dwellings. Informal dwellings were generally occupied by an even spread of households between quintiles 1 and 4.

The rate of housing provisioning of RDP/state-subsidised dwellings has surpassed that of the private sector between 2009 and 2014, given that the proportion of RDP/state-subsidised dwellings of all formal stock has increased during that period (from 16,8% to 19,1%). The quintile distribution of households living in RDP and non-RDP formal dwellings shows a clear distinction between the two groups in that more than 50% of the non-RDP formal dwelling inhabitants are from quintiles 4 and 5 and more than 80% of the inhabitants of RDP formal dwellings were in income quintiles 1 to 3. More than three-quarters of households living in RDP/state-subsidised houses used their house as security to finance home improvements, while 18% used it as collateral to establish a business.

In relation to ownership rates by vulnerable groups, significant strides have been made. Female-headed households, as well as households with household heads 60 years and older, have become significantly more likely to be homeowners during the period 2001 to 2011. The former change can be directly associated with the targeted provisioning of RDP/state-subsidised housing (22% of female headed households living in formal dwellings live in RDP/state subsidised housing in 2014), while 19% of elderly-headed households living in formal dwellings lived in RDP/state-subsidised housing. The provinces in which female-headed households living in formal dwellings were the most likely to live in an RDP/state-subsidised house, were Free State (41%) and Western Cape (32,1%).

Households living in formal RDP dwellings were more likely than those living in non-RDP formal dwellings to have access to services. For example, nearly 87% of households living in RDP dwellings had access to piped water in their yards compared to only approximately 79% of those living in non-RDP formal dwellings. Nationally, approximately a quarter of households living in RDP/state-subsidised housing lived in overcrowded conditions. In some provinces such as Gauteng and Western Cape approximately a third of RDP/state-subsidised housing dwellers were living under circumstances that can be described as overcrowded. The percentage of households living in formal RDP houses who paid for all basic services decreased from 47% in 2009 to 42% in 2014. Those that do not pay for any basic services increased from 26% in 2009 to 38% in 2014. In 2014, households living in formal

non-RDP structures were more likely to be satisfied with the condition of their dwelling (89%) than households living in RDP formal structures (83%).

In the BNG, the progressive eradication of informal settlements is set as an overt target and the results of the study point towards mixed outcomes in this respect. Even though there has been a decrease in the urban population of South Africa living in informal settlements (from 17% in 2002 to 11% in 2014), the percentage of households living in informal dwellings has only decreased slightly from 13,6% to 13,1% during the same time period. The difference can be attributed to increases in households living in informal dwellings in the backyards of other dwelling types. In 2014 North West (21%) and Gauteng (19%) had the highest proportion of households still living in informal settlements, while the former (45,1%) also had the biggest percentage increase of its urban population living in informal settlements in general. The biggest declines in the percentage of the urban population living in informal settlements during the reference period were found in Limpopo (-75,5%), Mpumalanga (-63%) and Free State (-44%).

From a municipal perspective, Gauteng (81,8%) and Free State (80,0%) had the biggest proportion of municipalities where more than 5% of the dwellings consist of backyard informal dwellings. In Western Cape, 44% of municipalities were affected and 38,9% of local municipalities in North West were affected. These same provinces also carry the heaviest load in terms of the actual levels of informal dwellings in the backyard. Increases in these kinds of dwellings between 2001 and 2011 ranged from Swartland with a 4,2 percentage point increase to Nketoana in Free State with an 8,4 percentage point increase. Free State had four municipalities amongst the top ten with increases, followed by Western Cape with two. Most of the municipalities that experienced a contraction in the percentage of backyard dwellings were areas that were affected by a reduction in either mining or manufacturing activities during the reference period. Thus, the decreases may have as much to do with better provisioning by the local municipality than it does with a reduction in economic opportunities and, per implication, demand for housing by migrant workers.

In 2011, district councils in Gauteng and Northern Cape were the most likely to have households living in informal settlements. However, most district councils experienced a decrease in the percentage of households living in informal settlements between 2001 and 2011. District councils with the most significant increases between 2001 and 2011 were Siyanda in Northern Cape, Cape Winelands in Western Cape and Ngaka Modiri Molema in North West.

The municipal profiles related to informal dwellings in settlements point to similar trends in Gauteng, North West and Free State. These provinces surpassed the other provinces in terms of the percentage of municipalities in those provinces with more than 10% of their dwellings that are informal dwellings in informal settlements. The provinces with the biggest proportions of municipalities where more than 10% of dwellings consist of informal dwellings in informal settlements were North West (66,7%), Gauteng (54,5%), Free State (40%) and Mpumalanga (38,9%). In relation to the highest levels of informal settlements, the heaviest loads are carried by Gauteng, North West and Free State. A lot of progress was also made, with 40% of municipalities in Free State, 29% in North West and 22% in Mpumalanga achieving reductions of at least 10 percentage points.

Two of the three local municipalities that have realised the biggest percentage point increases in households living in informal settlements were !Kheis (14 percentage point increase) and Tsantsabane (11,6 percentage point increase) – both in Northern Cape, and Naledi in North West. The biggest contractions during the period 2001 and 2011 were found in Modimolle (32,2 percentage point decrease) and Metsimaholo (23,4 percentage point decrease). Maletswai and Matjhabeng followed with decreases of approximately 17,8 percentage points.

Generally, access to basic services such as water, electricity and refuse removal is better for households living in backyard informal dwellings than those living in informal settlements. The study found a decrease in access to water inside the yard for households living in informal settlements between 2005 (51,4%) and 2014 (45%). Largely, access to water outside the yard has improved in that those who travelled more than 201 metres for water dropped from 35% in 2005 to 14% in 2014. Households in informal dwellings who accessed water from unsafe sources increased over the same period (from 4% to 6%). Access to toilet facilities inside the yard has deteriorated from 86% in 2005 to 75% in 2014 for households living in informal settlements. Fewer households in informal dwellings accessed unimproved sanitation (a decline from 58% in 2002 to 41% in 2014).

Around two out of ten of households living in informal dwellings have no employed household member, and they were predominantly from income quintiles 1 to 4. Less than half of households living in informal dwellings in the country were living in overcrowded conditions in 2014. The situation was worst in Northern Cape (six out of ten dwelling units overcrowded) and slightly more than half of the dwellings in Free State and Gauteng were overcrowded. Backyard shack rentals increased between 2002 and 2014 (from 42% to 66%) and rentals in informal settlements increased from 9% to 17%. Ownership of informal settlement dwellings declined from 74,2% in 2002 to 11,7% in 2014. A higher proportion of school-going children in informal settlements needed to travel for more than thirty minutes to get to school than those who live in backyards.

Three out of ten households living in informal housing in South Africa had members who have submitted their names to receive RDP housing in 2013. Northern Cape had the highest percentage of households with such members (62%), followed by Eastern Cape (40%), Western Cape (33,4%) and Gauteng (32,0%). Most of these individuals have been waiting for up to three years. Between 2002 and 2014, households with a black African household head (15%) were more likely to live in informal dwellings than other population groups.

The percentage of South Africans who lived in traditional dwellings between 2002 and 2014 decreased from 14% in 2002 to 9% in 2014. Inhabitants of the Eastern Cape were the most likely to live in traditional dwellings; however, this province has also experienced the biggest decrease in traditional dwellings between 2002 and 2014 (from 41,5% to 30,9%). Meanwhile, KwaZulu-Natal (20,1%) had the second highest proportion of households living in traditional dwellings in 2014. More than half of the municipalities in KwaZulu-Natal and Eastern Cape had at least 10% traditional dwellings. KwaZulu-Natal and Limpopo fared the best when considering general decreases in the percentage of households living in traditional dwellings, as well as the municipalities who reduced the percentage of households living in traditional dwellings between 2001 and 2011.

District councils with the highest percentages of households living in traditional dwellings in 2011 were Alfred Nzo, Sisonke, Amathole, Joe Gqabi and Ugu. However, in all of these district councils, significant reductions in the percentages of households who live in traditional dwellings have taken place between 2001 and 2011.

The data index shows that households in traditional dwellings increasingly enjoy access to better basic services, even though they tend to lag behind other dwelling types in this regard. Furthermore, there were more households who perceived the condition of the structure of their dwellings as good in 2014 than in 2002. Between 2002 and 2014, the percentage of households who accessed unimproved sanitation decreased from 95% in 2002 to 39% in 2014. Slightly more than half of South African households in traditional dwellings accessed water from unimproved water sources in 2002, but this improved to 36% in 2014. In 2014, 97% of households also had access to a toilet facility in their yard. Over the reference period, the percentage of households who described their dwellings as having weak or very weak walls and roof decreased from 40% to 31%.

Most households living in traditional structures do not have any household members on waiting lists for RDP/state-subsidised housing. North West (37%) and Mpumalanga (34%) had the highest proportion of households with members on an RDP/subsidised dwelling waiting list.

Households living in traditional dwellings were visibly affected by the 2008 recession in that in 2010, as many as 6 out of 10 households did not have any employed household member; however, this improved slightly to 57% in 2014. Marginally more than over 7 out of 10 households in traditional dwellings were from quintiles 1 and 2. North West (46%) had the highest proportion of households living in overcrowded traditional dwellings, followed by 4 out of 10 households in Free State. Approximately 20% of households living in traditional dwellings experienced hunger in 2014.

The provincial analysis of the adequate housing index suggests that Eastern Cape, Limpopo and KwaZulu-Natal have the highest proportions of households with inadequate housing and also the highest overall index scores.

15.2 Recommendations

1. The provisioning of RDP/state -subsidised housing has been successful in not only expanding the housing stock available in the country, but also in providing access to decent housing to vulnerable groups such as low -income and female -headed households.
2. The transition from ''dead'' assets to sources of household income generation and livelihood formation is evidenced in the use of these dwellings as collateral to either improve the dwellings or to start an enterprise and /or the expansion of a rental market around these dwellings. Even though this is undoubtedly of benefit to the households engaged in this activity, a consequence of this has been a decrease in dwelling ownership and, per definition, tenure security. Households living in informal dwellings are increasingly renting their dwellings. This may place them in a worse financial position than they were before, with greater control over informal settlements by rental agencies and so -called ''landlords''.
3. The evidence suggest that the Mineral and Petroleum Resources Development Act (MPRDA) and the South African Mining Charter introduced in 2002 and further reforms adopted in 2010 are beginning to bear positive outcomes in relation to reducing the percentage of mine workers living in informal settlements. However, there is still a need to address the rapid growth of informal dwellings and settlements in North West and the Northern Cape around economic and mining growth points. These areas can be much more effectively targeted in joint programmes between employers and the state through site and service schemes than in Gauteng, where informal settlements are a constantly moving target. There has been a general decline of access to basic services for households living in informal settlements.
4. Even though the percentage of households living in informal settlements has declined, there has been an increase in the percentage of households living in backyard informal dwellings. Even though this is partly an indication of attempts to grow housing as a potential source of economic activity through the expansion of the rental market to low -income households, it also places additional strain on the provisioning of basic services. This may eventually compromise access to services of all households in a particular settlement if, for example, overload of the electricity connection results in frequent power failures, or refuse removal is inadequate. A balance needs to be found between promoting housing entrepreneurship without jeopardising access to services of the non-participating households in settlements.
5. Meaningful and evidence-based planning, decision-making, monitoring and evaluation of progress in relation to the provisioning of adequate housing is only possible with data that can be used to report reliably and regularly at municipal or even lower levels of geography. The lack of such data was once again highlighted during the compilation of the adequate housing index, and mechanisms need to be put in place to monitor progress in this respect at least every two years.

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NPC – see National Planning Commission

NSDP – see Presidency

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17. Annexure

Appendix A: The adequate housing index

The adequate housing index is based on the prerequisites for adequate housing as defined by UN Habitat (2015) as well as considerations around data availability. Even though data at a lower level of geography than province would have been ideal, further investigation into its usability showed that the Census data did not include sufficient information related to access, adequacy of the dwelling and affordability. As a result the GHS 2014 data was used instead.

As can be seen in the table on the next page a total of 3 dimensions, sharing 18 indicators between them, were identified for the compilation of the index.

The methodology used to calculate the index is similar to the one used for the South African Multidimensional Poverty Index (SAMPI) and the school deprivation index. The three dimensions of learning environment deprivation and their 18 associated indicators each received a binary value with a value 1 if the household was considered deprived in that respect and a value of 0 if not. The indicators were then multiplied with the weights and all values were added to arrive at a headcount. The percentage of individuals who were deprived, based on a cut-off of 33% (headcount), were then calculated.

These indicators were in turn used to calculate the following AHI measures:

1. **Headcount (H)** – the percentage of learners that are deprived according to the multidimensional poverty index. The index defines a learner as multi-dimensionally deprived if the composite score for all the indicators is above 50%.

2. **Intensity (A)** – the intensity of poverty for the deprived learners as indicated by the headcount is measured by the proportion of deprivations those deprived people are experiencing.

3. **Adequate Housing Index (HxA)** – a product of the headcount and the intensity.

Table A1: The dimensions, indicators and weights used for the adequate housing index

Dimension	Total weight for dimen-sion		Indicator	Weights for indicators	Variable name
Tenure security and adequacy of dwelling		1	Do not own dwelling	0,047	
		2	Ownership of dwelling is traditional or informal (insecurity of land on which structure was built)	0,047	
		3	Do not live in formal dwelling	0,047	
		4	Material used for floor of main dwelling rudimentary i.e. soil, cardboard or rough wooden planks etc.	0,047	
		5	Walls not in good or very good condition	0,047	
		6	Roof not in good or very good condition	0,047	
	0,33	7	Number of people per room more than 1	0,047	
Access to basic services		8	No access to piped water in dwelling, yard or within 200 metres from dwelling	0,055	
		9	No access to flush toilet, Improved pit latrine or chemical toilet	0,055	
		10	Refuse is not removed at least once a week	0,055	
		11	Do not use electricity for lighting	0,055	
		12	Use solid fuels for cooking	0,055	
	0,33	13	Do not have access to mobile or landline telephone	0,055	
Accessibility Affordability Location		14	Households who do not own a dwelling and who are not benefiting from an RDP or state subsidised house	0,066	
		15	Spend more than 50% of income on housing	0,066	
		16	Further than 30 minutes from educational institution	0,066	
		17	Within 30 minutes from work opportunities	0,066	
	0,33	18	Further than 30 minutes from nearest health facility	0,066	