

Western Cape: Informal settlements status



RESEARCH REPORTS



RESEARCH SERIES PUBLISHED BY THE HOUSING DEVELOPMENT AGENCY

The Housing Development Agency (HDA)

Block A, Riviera Office Park,
6 – 10 Riviera Road,
Killarney, Johannesburg
PO Box 3209, Houghton,
South Africa 2041
Tel: +27 11 544 1000
Fax: +27 11 544 1006/7

Acknowledgements

- Eighty 20

DISCLAIMER

Reasonable care has been taken in the preparation of this report. The information contained herein has been derived from sources believed to be accurate and reliable. The Housing Development Agency does not assume responsibility for any error, omission or opinion contained herein, including but not limited to any decisions made based on the content of this report.

Contents

PART 1: Introduction	4
<hr/>	
PART 2: Data sources	5
<hr/>	
2.1 Survey and Census data	5
2.2 Other Data from Stats SA	9
2.3 National Department of Human Settlements (NDHS) and LaPsis	9
2.4 Eskom's Spot Building Count (also known as the Eskom Dwelling Layer)	9
2.5 Community Organisation Resource Centre (CORC)	10
2.6 Provincial data: Western Cape	11
2.7 Municipal data: City of Cape Town	11
PART 3: The number and size of informal settlements in the Western Cape	14
<hr/>	
3.1 Estimating the number of households who live in informal settlements	14
3.2 Estimating the number of informal settlements	17
PART 4: Profiling informal settlements in the Western Cape	19
<hr/>	
4.1 Basic living conditions and access to services	19
4.2 Profile of households and families	21
4.3 Income, expenditure and other indicators of wellbeing	22
4.3.1 Income	22
4.3.2 Expenditure	23
4.4 Age of settlements and permanence	23
4.5 Housing waiting lists and subsidy housing	26
4.6 Health and vulnerability	26
4.7 Education	28

Contents

PART 5: Profiling informal settlements in the City of Cape Town	29
5.1 Basic living conditions and access to services	29
5.2 Profile of households and families	31
5.3 Employment	31
5.4 Age of settlements and permanence	32
5.5 Education	32
PART 6: Conclusions	33
PART 7: Contacts and references	34
PART 8: Appendix: Statistics South Africa surveys	35
8.1 Community Survey 2007	35
8.2 General Household Survey	35
8.3 Income and Expenditure Survey 2005/6	36
8.4 Census 2001	36
8.5 Enumerator Areas	36

List of abbreviations


CORC	Community Organisation Resource Centre
EA	Enumeration Area
GHS	General Household Survey
GIS	Geographical Information Systems
GTI	GeoTerraImage
HDA	Housing Development Agency
HH	Households
IES	Income and Expenditure Survey
LaPsis	Land and Property Spatial Information System
NDHS	National Department of Human Settlements
PSU	Primary Sampling Unit
Stats SA	Statistics South Africa

PART 1

Introduction

In terms of the HDA Act No. 23, 2008¹, the Housing Development Agency (HDA), is mandated to assist organs of State with the upgrading of informal settlements. The HDA therefore commissioned this study to investigate the availability of data and to analyse this data relating to the profile, status and trends in informal settlements in South Africa, nationally and provincially as well as for some of the larger municipalities. This report summarises available data for the Western Cape province.

¹The HDA Act No.23, 2008, Section 7 (1) k.



PART 2

Data sources

A number of data sources have been used for this study. These include household level data from the 2001 Census and a range of nationally representative household surveys. Settlement level data was also reviewed, including data from the City of Cape Town, various national data sources including the National Department of Human Settlements, the Housing Development Agency and Eskom as well as provisional data based on a recent study commissioned by the province.

There is no single standard definition of an informal settlement across data sources, nor is there alignment across data sources with regard to the demarcation of settlement areas. It is therefore expected that estimates generated by various data sources will differ.

It is critical when using data to be aware of its derivation and any potential biases or weaknesses within the data. Each data source is therefore discussed briefly and any issues pertaining to the data are highlighted. A more detailed discussion on data sources is provided in the national report on informal settlements prepared for the HDA.

2.1 Survey and Census data

Household-level data for this report was drawn from various nationally representative surveys conducted by Statistics South Africa including 2007 Community Survey (CS)², the General Household Survey (GHS) from 2002 to 2009 and the 2005/6 Income and Expenditure Survey (IES)³. In addition, the study reviewed data from the 2001 Census⁴.

The census defines an informal settlement as 'An unplanned settlement on land which has not been surveyed or proclaimed as residential, consisting mainly of informal dwellings (shacks)'. In turn, the census defines an 'informal dwelling' as: 'A makeshift structure not erected according to approved architectural plans'. In the 2001 Census all residential Enumeration Areas (EAs)⁵ are categorised as one of Informal Settlements, Urban Settlements, Tribal Settlements or Farms. In addition, dwellings are categorised as either formal dwellings⁶ or informal dwellings, including shacks not in backyards, shacks in backyards and traditional dwellings. There are therefore two potential indicators in the 2001 Census that can be used to identify households who live in informal settlements, one based on enumeration area (Informal Settlement EA) and the other based on the type of dwelling (shack not in backyard).

² The Community Survey is a nationally representative, large-scale household survey. It provides demographic and socio-economic information such as the extent of poor households, access to facilities and services, levels of employment/unemployment at national, provincial and municipal level.

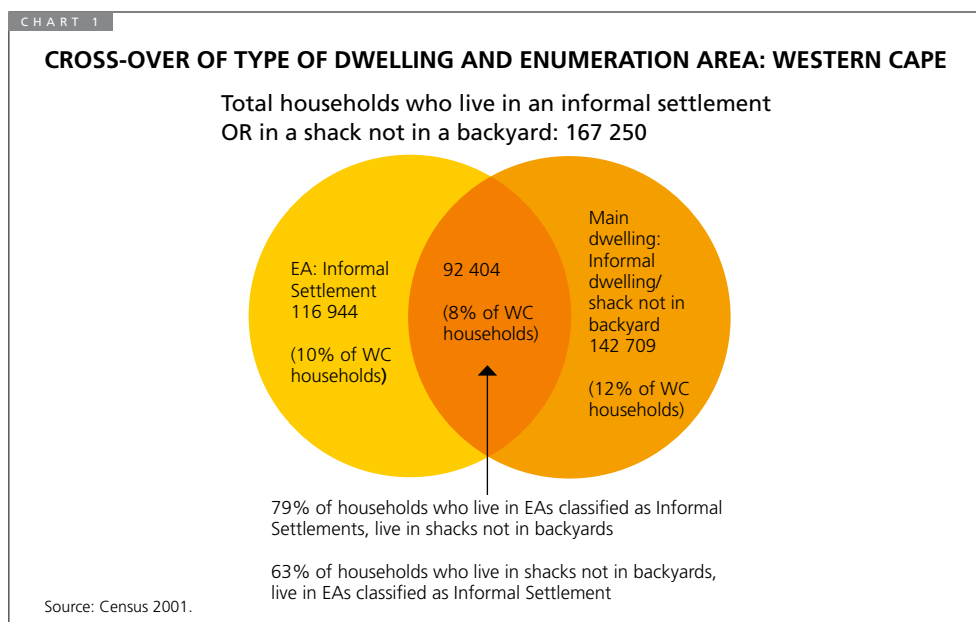
³ The Income and Expenditure Survey was conducted by Statistics South Africa (Stats SA) between September 2005 and August 2006 (IES 2005/2006). It is based on the diary method of capture and was the first of its kind to be conducted by Stats SA.

⁴ The Census data is available for all SA households; where more detail is required the 10% sample of this data set is used. Choice of data set is highlighted where applicable.

⁵ An EA is the smallest piece of land into which the country is divided for enumeration, of a size suitable for one fieldworker in an allocated period of time. EA type is then the classification of EAs according to specific criteria which profiles land use and human settlement in an area.

⁶ Formal dwellings include house or brick structure on a separate stand, flat in a block of flats, town/cluster/semi-detached house, house/flat/room in backyard and a room/flatlet on a shared property.

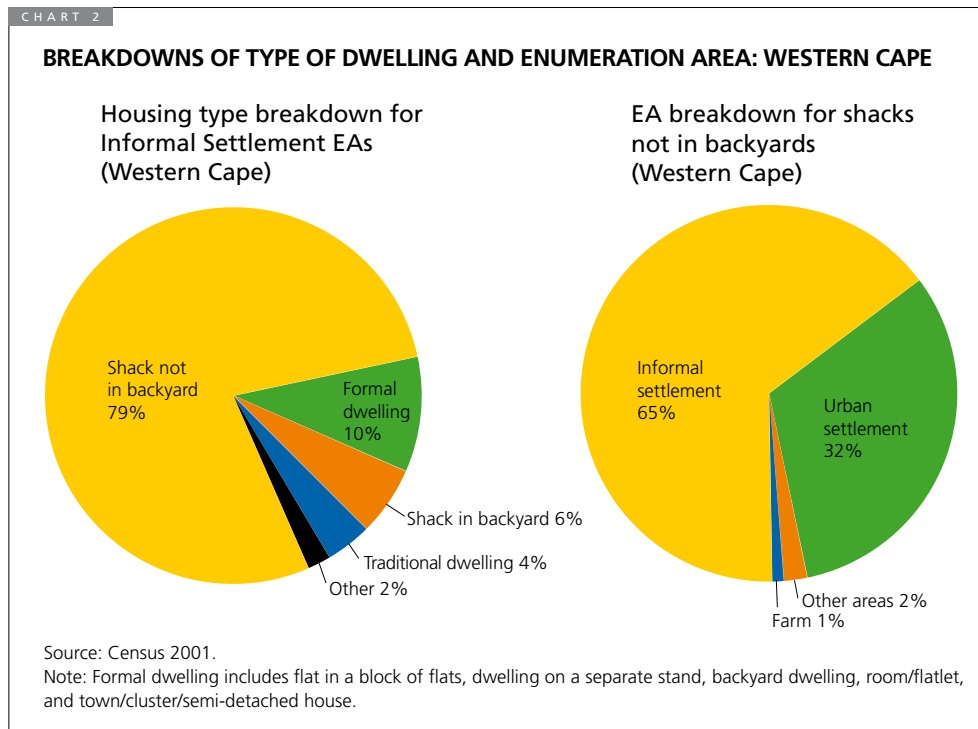
According to the 2001 Census, 143,000 households in the Western Cape (12% of households) lived in an informal dwelling or shack not in a backyard in 2001 while 117,000 households (10% of households) lived in enumeration areas that are characterised as Informal Settlements. Just over 92,000 households lived in both.



Unlike census data, survey data does not provide an EA descriptor. However, surveys do provide an indication of dwelling types, aligned with the main categories defined in the census. In the absence of an EA descriptor for informal settlements, the analysis of survey data relies on a proxy indicator based dwelling type, namely those who live in an 'Informal dwelling/shack, not in backyard e.g. in an informal/squatter settlement'.

Census data can provide an indication of the suitability of this proxy. According to the Census, of those households in the Western Cape who live in EAs categorised as Informal Settlements, 79% live in shacks not in backyards. A further 10% of households in these EAs live in formal dwellings, 6% live in shacks in backyards (it is not clear whether the primary dwelling on the property is itself a shack) and 4% live in traditional dwellings.

Conversely the data indicates that 35% of all households in the Western Cape who live in shacks not in a backyard do not, in fact, live in EAs categorised as Informal Settlements. 32% live in EAs categorised as Urban Settlements and 1% live in Farm EAs.



The analysis based on surveys using the dwelling type indicator 'shack not in backyard' to identify households who live in informal settlements should therefore be regarded as indicative as there is insufficient data in the surveys to determine whether these households do, in fact, live in informal settlements as defined by the census, or by local or provincial authorities.

A further challenge with regard to survey data relates to the sampling frame. In cases where survey sample EAs are selected at random from the Census 2001 frame, newly created or rapidly growing settlements will be under-represented. Given the nature of settlement patterns, informal settlements are arguably the most likely to be under-sampled, resulting in an under-count of the number of households who live in an informal settlement. Further, if there is a relationship between the socio-economic conditions of households who live in informal settlements and the age of the settlement (as it seems plausible there will be) a reliance on survey data where there is a natural bias towards older settlements will result in an inaccurate representation of the general conditions of households who live in informal settlements. This limitation is particularly important when exploring issues relating to length of stay, forms of tenure and access to services. A second word of caution is therefore in order: survey data that is presented may under-count households in informal settlements and is likely to have a bias towards older, more established settlements.

An additional consideration relates to sample sizes. While the surveys have relatively large sample sizes, the analysis is by and large restricted to households who live in shacks not in backyards, reducing the applicable sample size significantly. Analysis of the data by province or other demographic indicator further reduces the sample size. In some cases the resulting sample can be too small for analysis. In most cases this is not true for the Western Cape.

	Census 2001			Community Survey 2007		Income and Expenditure Survey 2005/6		General Household Survey 2009	
	Total number of households	Total number of households living in shacks not in a backyard	Households living in informal settlement EAs	Total survey sample size	Sample size for households living in shacks not in a backyard	Total survey sample size	Sample size for households living in shacks not in a backyard	Total survey sample size	Sample size for households living in shacks not in a backyard
Western Cape	1 211 485	142 709	116 944	26 425	2 106	2 404	186	2 530	243
City of Cape Town	778 696	110 148	89 126	14 318	1 484				

Source: Census 2001 (10% sample), Community Survey 2007, IES 2005/6, GHS 2009; Household databases.

A final consideration relates to the underlying unit of analysis. Survey and census data sources characterise individuals or households rather than individual settlements. These data sources provide estimates of the population who live in informal settlements as well as indications of their living conditions. The data as it is released cannot provide an overview of the size, growth or conditions at a settlement level⁷ although it is possible to explore household-level data at provincial and municipal level depending on the data source and sample size.

The definition of a household is critical in understanding household level data. By and large household surveys define a household as a group of people who share a dwelling and financial resources. According to Statistics SA 'A household consists of a single person or a group of people who live together for at least four nights a week, who eat from the same pot and who share resources'. Using this definition, it is clear that a household count may not necessarily correspond to a dwelling count; there may be more than one household living in a dwelling. Likewise a household may occupy more than one dwelling structure.

From the perspective of household members themselves the dwelling-based household unit may be incomplete. Household members who share financial resources and who regard the dwelling unit as 'home' may reside elsewhere. In addition, those who live in a dwelling and share resources may not do so out of choice. Household formation is shaped by many factors, including housing availability. If alternative housing options were available the household might reconstitute itself into more than one household. Thus, while the survey definition of a household may accurately describe the interactions between people who share a dwelling and share financial resources for some or even most households, in other cases it may not. The surveys themselves do not enable an interrogation of this directly.

⁷ It may be possible for Statistics South Africa to match EA level data from the 2001 Census to settlements to provide an overview of specific settlements. Given that the Census data is ten years old, and that conditions in informal settlements are likely to have changed significantly since then, the feasibility of this analysis was not established.

2.2 Other data from Stats SA

A dwelling frame count was provided by Stats SA for the upcoming 2011 Census. The Dwelling Frame is a register of the spatial location (physical address, geographic coordinates, and place name) of dwelling units and other structures in the country⁸. It has been collated since 2005 and is approximately 70% complete. The Dwelling Frame is used to demarcate EAs for the 2011 Census⁹.

There are 153 sub-places in the Western Cape with at least one EA classified as 'Informal Residential'¹⁰, totalling 729 EAs (covering a total area of 26.56 square kilometres). There are Dwelling Frame estimates for 122 (80%) of these 'Informal Residential' EAs, totalling 50,660 Dwelling Frames. Since the Dwelling Frame is only approximately 70% complete, and not all units are counted within certain dwelling types, the count should not be seen as the official count of dwellings or households within the EA Type.

2.3 National Department of Human Settlements (NDHS) and LaPsis

The 2009/2010 Informal Settlement Atlas compiled by the NDHS indicates there are 201 informal settlement polygons in the Western Cape. No household estimates are provided.

LaPsis (Land and Property spatial information system), an online system developed by the HDA, builds on the data gathered by the NDHS and overlays onto it land and property data including cadastre, ownership, title documents and deeds (from the Deeds Office), administrative boundaries (from the Demarcation Board) and points of interest from service providers such as AfriGIS¹¹. The data indicates there are 189 informal settlements in the Western Cape; 51 of these have a households and shack count.

2.4 Eskom's Spot Building Count (also known as the Eskom Dwelling Layer)

Eskom has mapped and classified structures in South Africa using image interpretation and manual digitisation of high resolution satellite imagery. Where settlements are too dense to determine the number of structures these areas are categorised as dense informal settlements. Identifiable dwellings and building structures are mapped by points while dense informal settlements are mapped by polygons.

Shape files provided by Eskom revealed 234 polygons categorised as Dense Informal Settlements in the Western Cape, covering a total area of 17 square kilometres. The dataset does not characterise the areas, nor does it match areas to known settlements. Latest available data is based on 2008 imagery. Eskom is currently in the process of mapping 2009 imagery and plans to have mapped 2010 imagery by the end of the year.

⁸ Bhekani Khumalo (2009), 'The Dwelling Frame project as a tool of achieving socially-friendly Enumeration Areas' boundaries for Census 2011, South Africa', Statistics South Africa.

⁹ An EA is the smallest piece of land into which the country is divided for enumeration, of a size suitable for one fieldworker in an allocated period of time. EA type is then the classification of EAs according to specific criteria which profiles land use and human settlement in an area.

¹⁰ The EA descriptor for informal settlements in the 2011 Census is 'Informal Residential'; in 2001 the EA type was 'Informal Settlement.'

¹¹ AfriGIS was given informal settlements data by the provincial departments of housing to create the map layers.

2.5 Community Organisation Resource Centre (CORC)

CORC is an NGO that operates in all provinces across the country, with the aim of providing support to 'networks of communities to mobilise themselves around their own resources and capacities'¹². In order to provide a fact base to enable communities to develop a strategy and negotiate with the State with regard to service provision and upgrading, CORC profiles informal settlements and undertakes household surveys. These surveys have been conducted in areas across the country by community members in these settlements. Community members are trained by CORC and are provided with a basic stipend to enable them to do their work. Improvements are made to questionnaires using community consultation and professional verification. This ensures that comprehensive and relevant data is collected. CORC also gathers other settlement level data on service provision including the number and type of toilets and taps. A list of settlements that have been enumerated recently in the Western Cape is summarised below, together with household and population estimates.

Name of settlement	Region	Date	Number of households	Population
Joe Slovo	City of Cape Town	May 2009	2 748	7 946
Doornbach	City of Cape Town	September 2009	1 855	4 555
Manenberg	City of Cape Town	December 2009	3 139	1 322
Sheffield Road	City of Cape Town	December 2009	149	504
TT Section	City of Cape Town	February 2010	272	995
Barcelona	City of Cape Town	March 2010	2 230	6 600
Europe	City of Cape Town	October 2010	1 832	5 125
Los Angeles	City of Cape Town	November 2010	325	876
Shukushukuma	City of Cape Town	February 2011	306	718
Garden City	City of Cape Town	February 2011	317	753
lungrug	Stellenbosch	February 2011	1 876	4 088
la Rochelle	Stellenbosch	February 2011	25	100
Schoopiehoegte	Stellenbosch	February 2011	19	79
Devon valley	Stellenbosch	February 2011	10	15
Gif	Stellenbosch	February 2011	17	41
Kylmore	Stellenbosch	February 2011	9	26
Meerlust	Stellenbosch	February 2011	10	25

¹² See <http://www.sasdialliance.org.za/about-corc/>

2.6 Provincial data: Western Cape

The Western Cape Department of Human Settlements has commissioned a study of informal settlements in the province, excluding the City of Cape Town. While findings are provisional and unpublished, that data indicates there are 51,224 shacks spread across 230 informal settlements as summarised below.

	Number of informal settlements	Number of informal dwellings in informal settlements
Cape Winelands	72	21 652
Central Karoo	1	17
Eden	107	14 035
Overberg	35	8 787
West Coast	15	6 733
Total (excl. City of Cape Town)	230	51 224

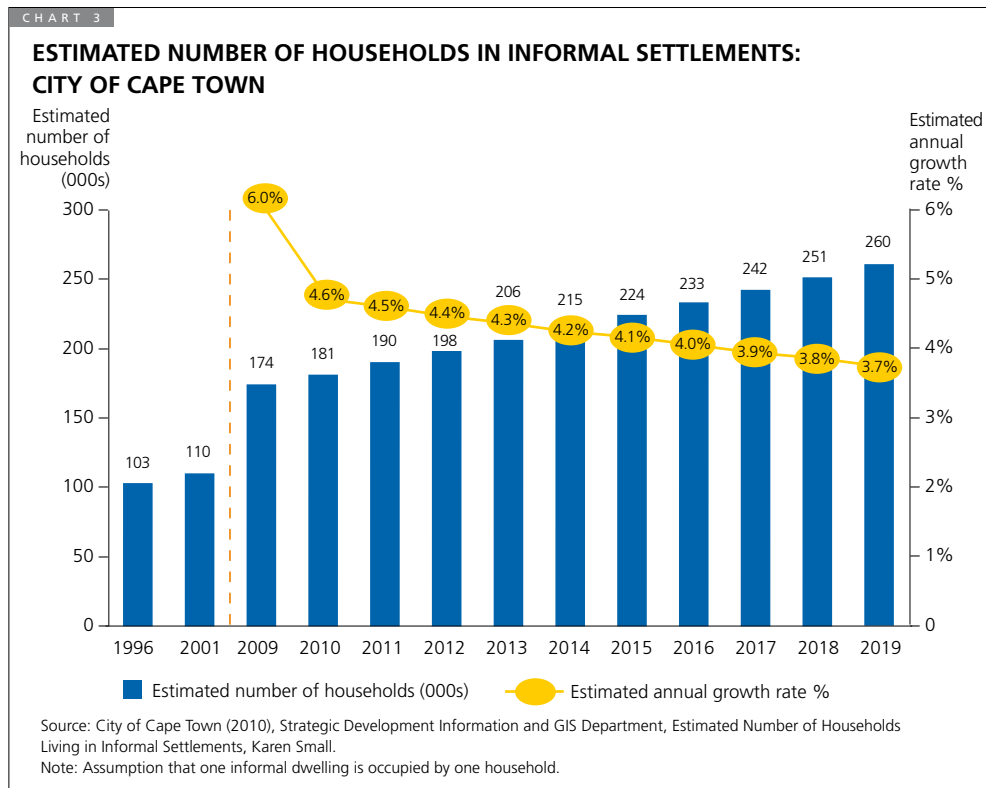
Source: Western Cape Department of Human Settlements.

2.7 Municipal data: City of Cape Town

The City recently published a report estimating the number of households living in informal settlements in the City of Cape Town Metropolitan Municipality¹³. The report uses the 2001 Census count of 110,000 as a baseline¹⁴ and applies a growth rate of 6% per annum to arrive at a current estimate of 174,000 households who live in informal settlements in 2009. Various data sources were used to derive this growth rate including historic rates of growth as per the 1996 and 2001 censuses, growth rates from the General Household Survey (various years), as well as estimates based on aerial photography and physical dwelling counts done by the Solid Waste Department as part of its area cleaning program. Projected figures determined by PDG for 2010 to 2019 have also been used. The official estimate of the number of households living in informal settlements is summarised on the following page:

¹³ City of Cape Town (2010), Strategic Development Information and GIS Department, Estimated Number of Households Living in Informal Settlements, Karen Small.

¹⁴ 110,000 represents those households living in shacks not in backyards. Note that according to the Census there were 89 126 households living in EAs classified as Informal Settlement EAs in the City of Cape Town.



These figures are used across the City for planning purposes whenever the unit of analysis is the household. However, in the case of provision of services (such as water and sanitation) household counts or estimates are not used as these services are delivered to consumer units or delivery points and not directly to households. For this reason an estimate of the number of informal dwellings or shacks in the City is also important.

A report entitled 'Informal Dwelling Count for Cape Town¹⁵ (1993 – 2005)' is currently being updated based on shack counts from aerial photography. The City of Cape Town's Corporate GIS branch (within the Information and Knowledge Management Department) has been responsible for these shack counts since 2002. The Department commissioned the aerial photography and was responsible for ortho-rectification¹⁶. At present the GIS department has informal shack count data up to June 2008 (see chart below). These 2008 shack counts will be incorporated into the updated report, due to be released at the end of June 2011. A new shack count is currently underway using November 2009 aerial photography, to be completed in 2011¹⁷. The GIS department completed new aerial photography in March 2011. It will take a few months to deliver the rectified imagery; once this is complete they will then immediately start the shack counting process again based on the March 2011 imagery¹⁸.

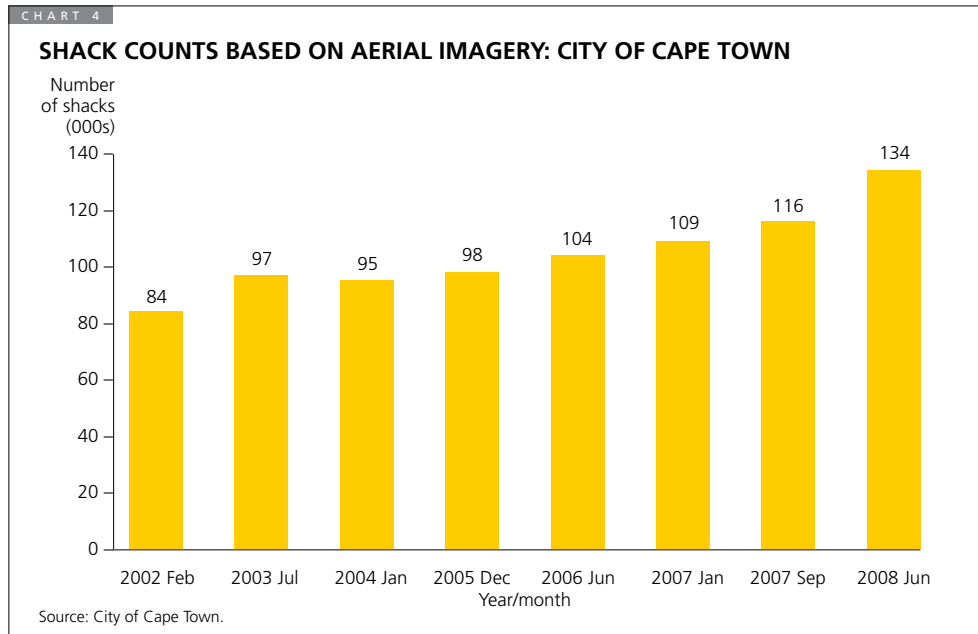
¹⁵ City of Cape Town (2006), Information and Knowledge Management Department, Strategic Information Branch, Informal Dwelling Count for Cape Town (1993-2005), Elvira Rodrigues, Janet Gie and Craig Haskins.

¹⁶ Ortho-rectification is the process of geometrically correcting an aerial photograph so that distances are uniform and the photograph can be measured like a map.

¹⁷ As at the end of May, the GIS department was still in the process of comparing and reconciling their results with other departments.

¹⁸ The 2009 imagery was flown at a 15cm resolution and the 2011 imagery was flown at a 10-12cm resolution which will be very accurate.

Shack counts are done using the Feature Analyst software, an automated process with around 80% success rate, leaving a 20% count to be done manually (a point is captured on every shack)¹⁹. It is noteworthy that the shack count estimates differ noticeably from the household count estimates summarised above. Shack counts are generally an undercount due to the difficulty of determining boundaries of every structure particularly when they are built right next to each other and are located under vegetation.



The City of Cape Town is currently developing a GIS Informal Settlement project. The purpose of this project is to collate the numerous sources of data relating to informal settlements available to the City (including shack counts from aerial photography, physical dwelling counts, and survey household estimates) and to develop more up-to-date, reliable household and dwelling figures.

Each department involved in the project will collect and capture their own data sets, before sending the data to the Corporate GIS branch to ensure all the standards have been adhered to. All data sets will have Meta Data attached and will include the following:

- Settlement name
- Settlement boundaries
- Number of settlements
- Number of shacks per settlement
- Number of doors per settlement needed for refuse collection
- All utility services such as stand pipes, number of toilets, water pipes
- Health data
- Number of households

There will also be reports of previous studies done in specific settlements. The project is expected to be completed by December of this year (2011).

¹⁹ To determine whether an informal settlement is serviced or not, the GIS branch uses a cadastral overlay which incorporates property ownership, road networks and so on. This information is then verified with the City's service departments.

PART 3

The number and size of informal settlements in the Western Cape

3.1 Estimating the number of households who live in informal settlements

According to the Census, 117,000 households in the Western Cape (10% of households in the province) lived in EAs classified as Informal Settlements in 2001²⁰. 78% lived in enumeration areas classified as Urban Settlements and a further 9% in EAs classified as Farms. Western Cape accounts for 11% of all households in informal settlement EAs in the country (it accounts for 10% of all households overall).

Census data at a municipal level is summarised below for Western Cape.

Municipality	Number of HH in Informal Settlement EAs	% of HH in municipality/ province that live in Informal Settlement EAs
Cape Winelands (formerly Boland)	10 889	6.8%
Central Karoo	0	0%
City of Cape Town	89 126	11.4%
Eden	9 512	7.9%
Overberg	4 972	8.5%
West Coast	2 445	3.1%
Western Cape	116 944	9.7%

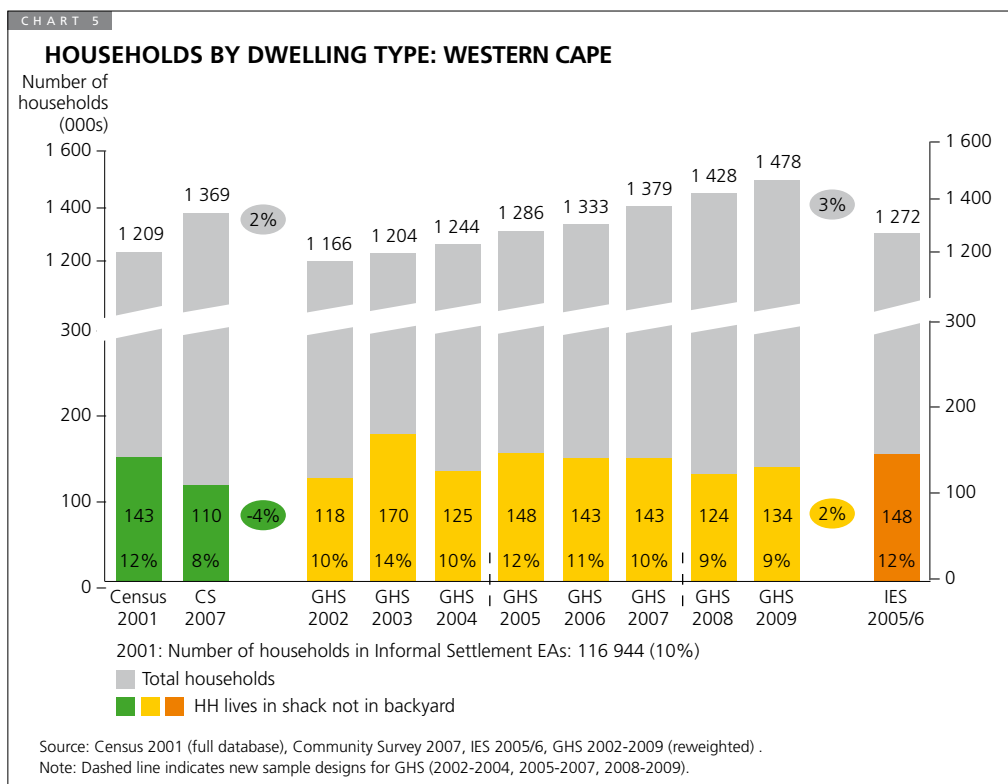
Source: Census 2001.

According to the 2007 Community Survey, 110,000 households (approximately 8% of households in the Western Cape) live in shacks not in backyards, down from 143,000 households (12% of households) in 2001 as reported by the Census. In terms of absolute numbers there was a decrease of around 33,000 in the number of households living in shacks not in backyards between 2001 and 2007.

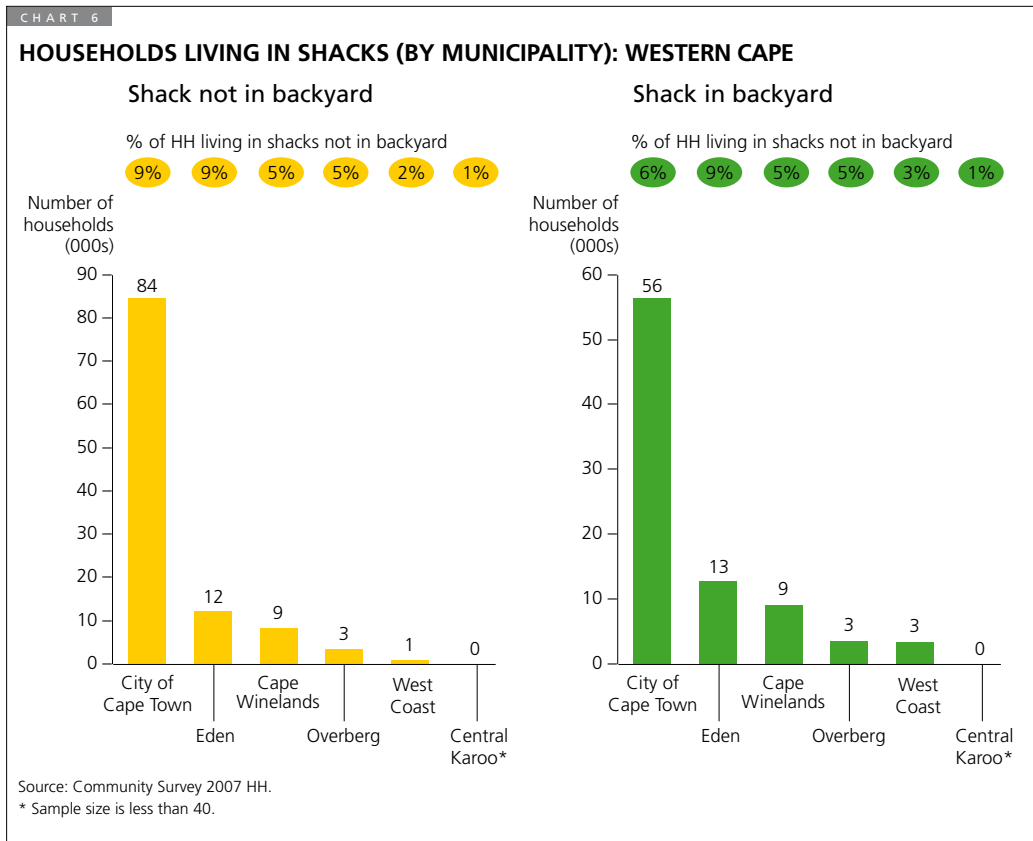
²⁰ With regards to settlement type, Informal Settlement is one of the ten EA descriptors used.

According to the 2007 Community Survey 9% of households in shacks not in backyards live in this province (11% of all households in the country live in this province).

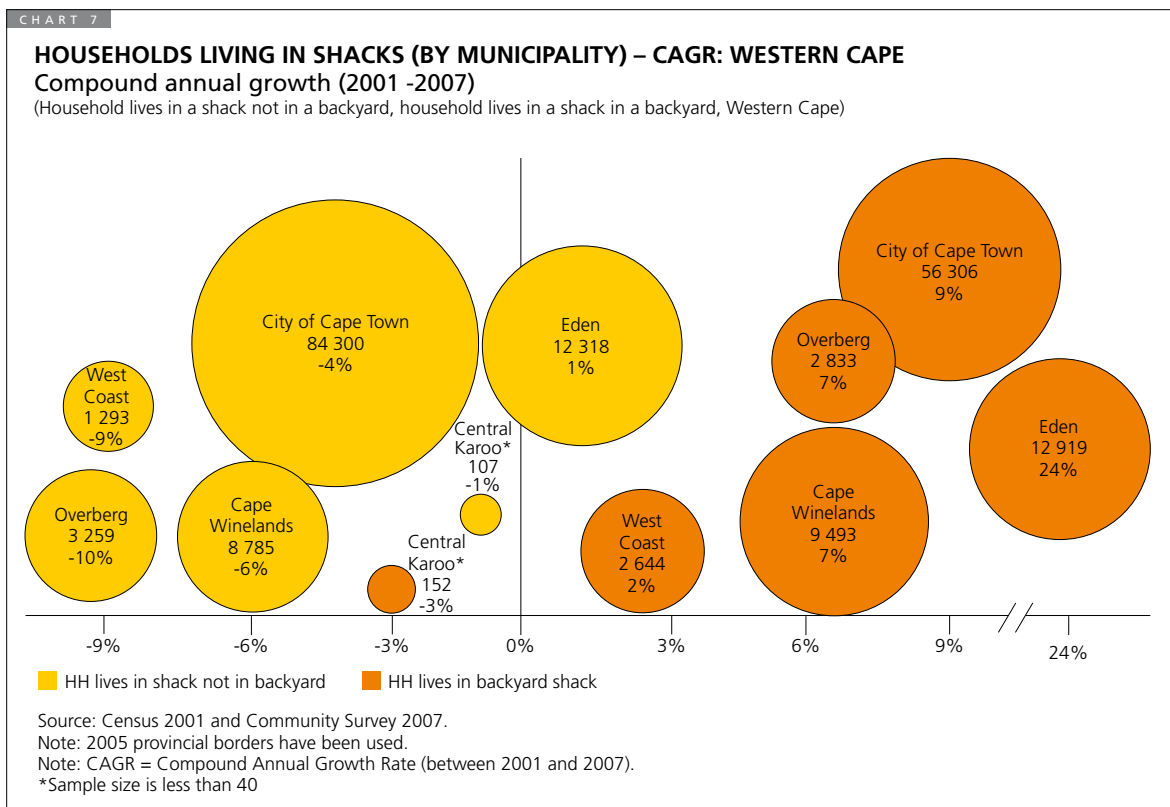
Survey-based estimates of the number of households who live in shacks not in backyards vary, sometimes quite significantly. For instance, in 2007 the Community Survey estimates around 110,000 households living in shacks not in backyards in the Western Cape while the 2007 GHS estimates around 143,000 such households. Estimates based on the GHS indicate an annual growth of 2% between 2002 and 2009, while estimates based on the Census and Community Survey indicate an annual growth of -4% between 2001 and 2007. A comparison of data from the census and various surveys is summarised below.



According to the 2007 Community Survey, at 84,000 the City of Cape Town has the highest number of households living in shacks not in backyards in the Western Cape. The chart below summarises municipal-level data for all shacks, including those not in backyards and those in backyards.



Data from the 2001 Census and the 2007 Community Survey can be used to explore growth rates for households living in shacks at a municipal level. This data is summarised in the bubble chart below. The size of the bubble indicates the size of the segment in 2007 while its location along the x-axis indicates the annual rate of growth. Of course in some of these areas high growth has occurred off a very low base. It is of interest that in most areas, growth rates for backyard shacks far exceeds that of shacks not in backyards. While this may reflect increased official determination to prevent the expansion of informal settlements it may also reflect sampling biases; new informal settlements may not have been surveyed in 2007.



3.2 Estimating the number of informal settlements

While survey and census data provide an estimate based on households, various data sources provide estimates of the number of informal settlements. The LaPsis data estimates 189 informal settlements across the province while the Atlas data set from the NDHS indicates 201 informal settlement polygons. Provisional research from the Western Cape Department of Human Settlements indicates 230 settlements, excluding the City of Cape Town.

Available data sources at a 'settlement' level are summarised below together with household level data based on the 2001 Census and the 2007 Community Survey. Note that settlements are identified and defined differently in these data sources.

TABLE 5 ESTIMATES AND/OR COUNTS OF INFORMAL SETTLEMENTS AND HOUSEHOLDS												
	Number of informal settlements						Number of households in informal settlements				Number of shacks in informal settlements	
	LaPsis: Informal settlements	Atlas: Informal settlement polygons	Stats SA: Sub places with at least one EA classified as 'Informal Residential'	Eskom: Polygons classified as 'Dense Informal'	Provincial estimates	Municipal estimates	Census 2001: HH in informal settlement EAs	Census 2001: HH in shacks not in backyards	Community Survey 2007: HH in shacks not in back- yards	Municipal estimates	Provincial estimates	Municipal estimates
Cape Winelands	-	30			72		10 889	12 381	8 785		21 652	
Central Karoo	-				1		0	113	107		17	
City of Cape Town	139	139				298	89 126	110 148	84 300	173 600		134 055
Eden	16	25			107		9 512	11 850	12 318		14 035	
Overberg	31	3			35		4 972	5 923	3 259		8 787	
West Coast	3	4			15		2 445	2 294	1 293		6 733	
Western Cape	189	201	153	234	230		116 944	142 709	110 062		51 224	

* Households in informal settlements to be upgraded between 2010/11 and 2013/14 (Outcome 8²¹): 45,360 in Western Cape.

Note: Provincial estimates from the Western Cape exclude the City of Cape Town.

While both LaPsis and Atlas databases rely on provincial data and should therefore be aligned with provincial estimates, there are often differences. For instance, the City of Cape Town estimates 298 informal settlements while both LaPsis and Atlas reflect 139 in this municipality. The City of Cape Town estimates 174,000 households living in informal settlements while the 2007 Community Survey indicates 84,000 households living in shacks not in backyards and the 2001 Census reflects 89,000 households living in enumeration areas classified as informal settlements.

These differences most probably arise as a result of different data currency; provincial or municipal estimates may have been collated more recently than national estimates. Variances may also reflect a lack of alignment regarding the definition of an informal settlement as well as different data collection methodologies.

²¹ Outcome 8 relates to Sustainable Human Settlements and Improved Quality of Life. National government has agreed on twelve outcomes as a key focus of work between 2010/11 and 2013/14.

PART 4

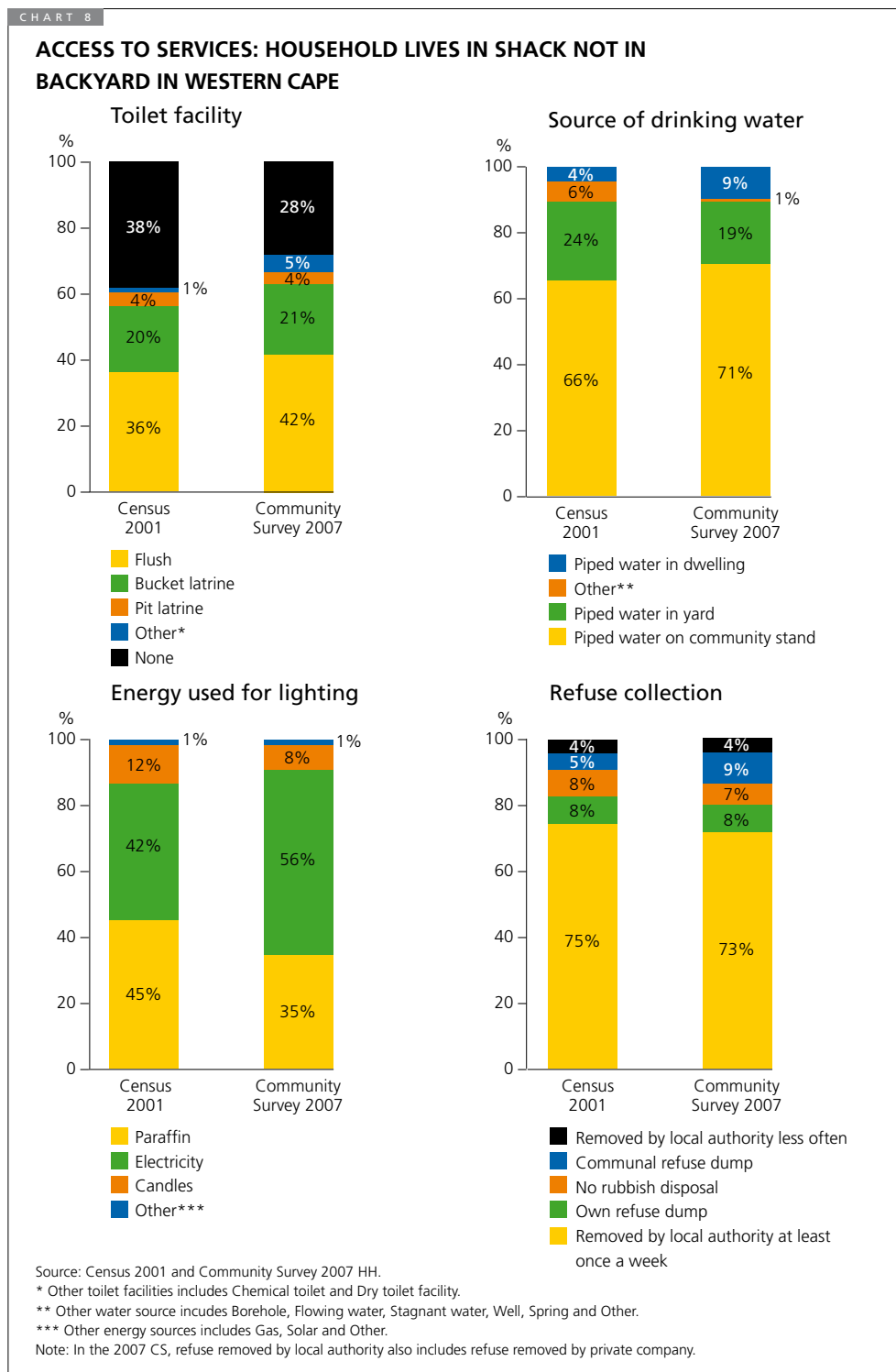
Profiling informal settlements in the Western Cape

The analysis of survey data investigates the characteristics of the dwellings and the profile of households and individuals living in shacks not in backyards. As noted this variable is a proxy for households who live in informal settlements. Where available, Census 2001 data relating to households who live in Informal Settlement EAs has been summarised in the introductory comments at the start of each sub-chapter.

4.1 Basic living conditions and access to services

In 2001, 16% of Western Cape households living in informal settlement EAs had piped water in their dwelling or on their yard. A further 39% could obtain piped water within 200 metres of their dwellings. 38% had access to piped water in excess of 200 metres from their dwellings (there is no indication of how far away the water source is) while 6% had no access at all. 23% of households in informal settlement EAs had flush toilets, 6% used pit latrines, 26% used bucket latrines and 1% had chemical toilets; the remaining 44% had no access to toilet facilities. 31% of households in informal settlement EAs used electricity for lighting and 75% had their refuse removed by the local authority.

Key trends relating to access to services for households living in shacks not in backyards are summarised in the chart below.



Access to services appears to have improved between 2001 and 2007; the proportion of households who live in shacks not in backyards who say they have no toilet facilities declined from 38% in 2001 to 28% in 2007. Drinking water access improved slightly while use of electricity for lighting increased from 42% to 56% between 2001 and 2007.

As has been highlighted, a word of caution is required in interpreting this data given potential biases in the sample design towards more established settlements where service provision is better.

4.2 Profile of households and families

In 2001, 26% of Western Cape households living in informal settlement EAs were single person households. The average household size was 3.0. 19% of households were living in over-crowded conditions. The majority of households were headed by males (64%).

According to the 2007 Community Survey, 18% of households living in shacks not in backyards comprise a single individual. While significant, it is lower than the national average for households living in shacks not in backyards where 23% comprise a single individual. According to the Community Survey 41% of Western Cape households living in shacks not in backyards comprise four or more persons. The average household size of households living in shacks not in backyards in 2007 is 3.4 (in 2001 this was 3.2), compared to 3.8 in 2007 for those living in formal dwellings (up from 3.7 in 2001). 23% of households living in shacks not in backyards live in over-crowded conditions²².

Household heads in the Western Cape in shacks not in backyards are also noticeably younger than those in formal dwellings; 48% are under the age of 35 compared to 18% in households who live in formal dwellings.

132,000 children under the age of 18 live in shacks not in backyards corresponding to 36% of the total Western Cape population who live in such dwellings. According to the Community Survey 57% of households in shacks not in backyards have one or more children.

Data from the GHS can be used to explore the relationships between household members in more detail. While the Community Survey finds that 18% of households are single person households as noted above, the 2009 GHS indicates that roughly 29% of households living in shacks not in backyards comprise single persons. That survey indicates that 22% of households living in shacks not in backyards are nuclear families comprising a household head, his or her spouse and children only. Single parent households, at 5% of households in shacks not in backyards, are not particularly noticeable. 37% of households who live in shacks not in backyards contain extended family members or unrelated individuals²³. According to the GHS, the average household size for shacks not in backyards has steadily decreased from 3.5 in 2005 to 3.0 in 2009.

²² A household is considered over-crowded if there are more than two people per room. It is possible that this estimate is understated in the case where more than one household inhabits the same dwelling.

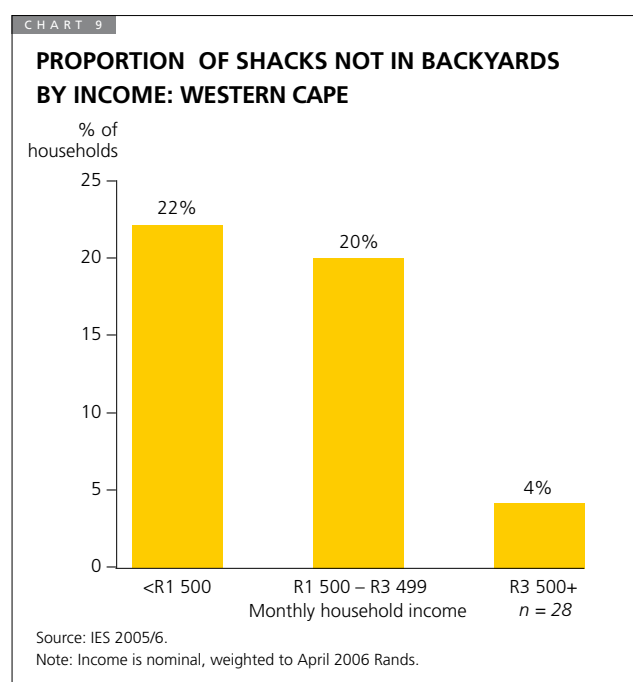
²³ Compared to Western Cape households who live in formal housing, the household composition of households in shacks not in backyards differs most noticeably with respect to single person households and households that contain nuclear families. 30% of Western Cape households in formal dwellings comprise a nuclear family while 18% comprise a single individual. 30% comprise extended family members or unrelated individuals and 9% single parents – statistics which are not very different from those relating to households living in shacks not in backyards.

4.3 Income, expenditure and other indicators of wellbeing

4.3.1 Income

While both the 2001 Census and the 2007 Community Survey gather some data on income, the quality of this data is relatively poor. A far more reliable source of this data is the 2005/6 Income and Expenditure Survey (IES). That data source indicates that 84% of Western Cape households who live in shacks not in backyards have a household income of less than R3,500 per month measured in 2006 Rand terms. Inflating incomes to 2010 Rands (and assuming no real shift in income) 72% of households living in shacks not in backyards earn less than R3,500 per month in 2010 Rand terms.

As expected, the survey indicates that the proportion of households living in shacks not in backyards declines as incomes increase. Around one in five of all households earning less than R3,500 (in 2006 Rands) live in shacks not in backyards.



The 2007 GHS indicates that 172,000 adults aged 15 and above living in shacks not in backyards in the Western Cape are employed. That same data indicates an unemployment rate of 37%, above the provincial average of 19% for adults aged 15 and above. While unemployment rates are high, according to the 2009 GHS, the primary income source for households in shacks not in backyards is salaries and wages; 72% of households who live in shacks not in backyards indicate this as their main income source. 11% say their main income source is from pensions and grants and a further 11% is from remittances²⁴.

2004 Labour Force Survey data indicates that 29% of employed individuals living in shacks not in backyards in the Western Cape are employed in the informal sector, a proportion that is well above the provincial average (10%). 60% are employed in the formal sector (two thirds of them are permanently employed) and a further 10% are domestic workers. 6% of all employed individuals living in shacks not in backyards in the province work in agriculture²⁵.

²⁴ Note that data may be unstable because of small sample sizes.

²⁵ This includes agriculture, hunting, forestry and fishing.

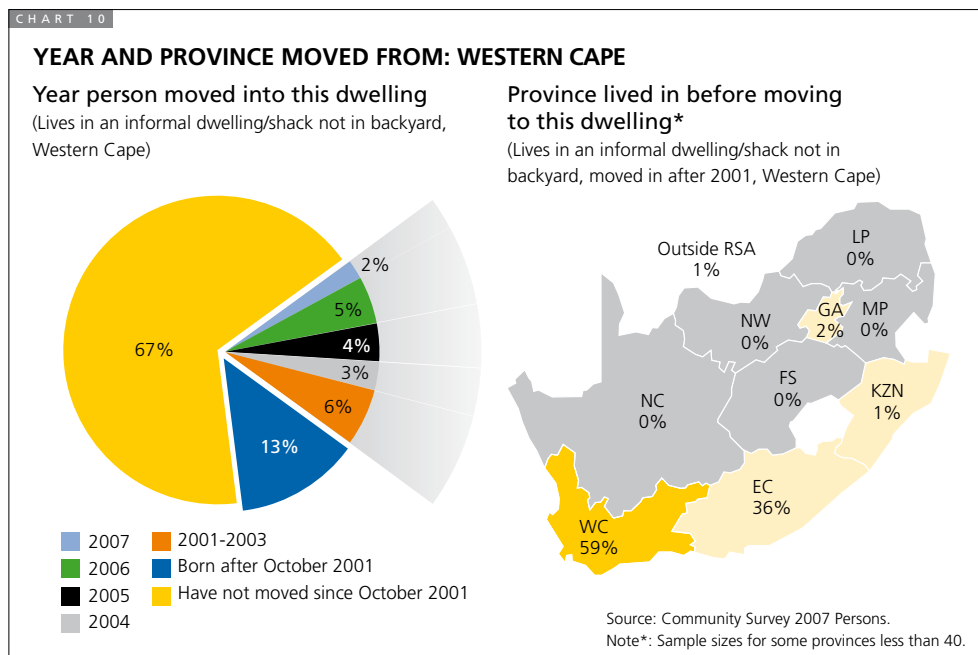
4.3.2 Expenditure

According to the IES, the proportion of households living in shacks not in backyards that transfer maintenance or remittances²⁶ at 47% is well above the average for Western Cape households as a whole (24%)²⁷.

4.4 Age of settlements and permanence

In 2001, the majority of households living in informal settlement EAs in the Western Cape (65%) were living there five years previously. In 2001, 29% of households living in informal settlement EAs claimed to own their dwelling; 9% rented and 61% occupied the dwelling rent-free. 12% of households in informal settlement EAs had another dwelling aside from their main dwelling.

Analysis of data from the 2007 Community Survey indicates that the majority of people living in a shack not in a backyard in 2007 had been living there for an extended period of time. Across the province, 67% said they had not moved since 2001. Of those who said they had moved since 2001, 59% moved from within the province and 36% moved from the Eastern Cape. Cross province migration into the Western Cape is far more noticeable than in other provinces. For instance, in the Eastern Cape, only 4% of those living in shacks not in backyards that had moved since 2001 were from other provinces.



According to the 2009 GHS, 96% of Western Cape households living in shacks not in backyards indicate that they were living in a shack not in backyard five years previously²⁸. The survey does not indicate whether the dwelling or the broad location of the dwelling is the same.

There may be some basis for a degree of scepticism when looking at this data. As noted in the overview of data sources, there may well be a sampling bias towards older, more established settlements. In addition, if households in informal settlements believe there is a link between the duration of their stay in that settlement and their rights either to remain in the settlement or to

²⁶ Both cash and in kind payments.

²⁷ For single person households living in shacks not in backyards in the Western Cape, this proportion is 70%.

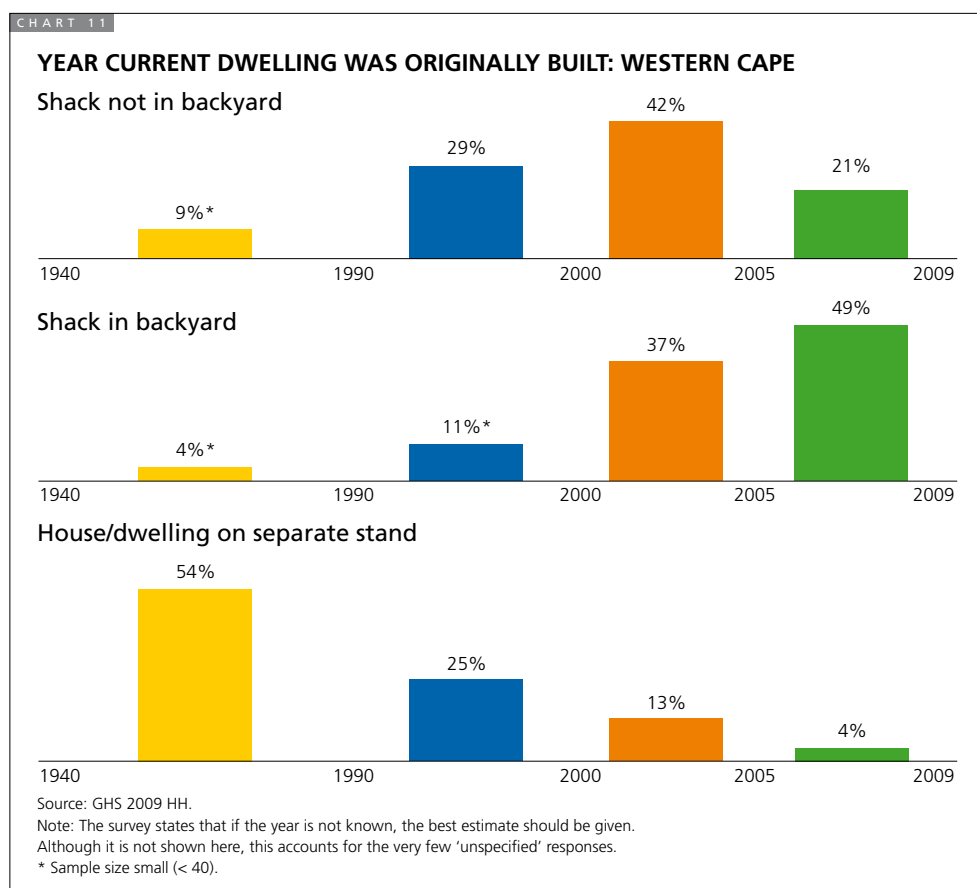
²⁸ For all South African households in shacks not in backyards, the proportion is 89%.

benefit from any upgrading programmes they may well have an interest in over-stating the length of time they have lived in their dwellings.

The 2009 GHS asks respondents when (i.e. in what year) their dwellings were originally built²⁹. The data indicates that 21% of shacks not in backyards were built within the past five years. At first glance this would appear to be at odds with the statistic cited above that 96% of households living in shacks not in a backyard were living in that same type of dwelling five years ago.

However, as already noted, that data does not necessarily imply the household lives in the same dwelling, or in the same location. Further, given the poor condition of many shacks (discussed in Section 4.6 below) and the vulnerability of many settlements to fire and flooding, it is entirely plausible that many shacks are completely rebuilt frequently³⁰.

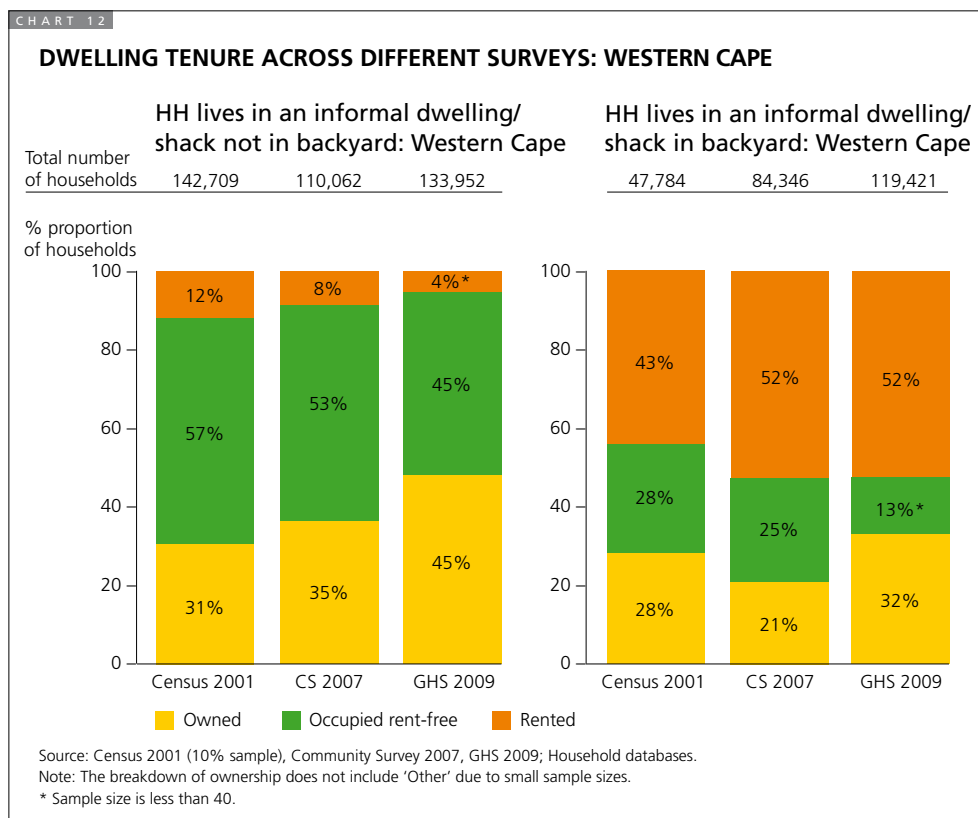
The survey data indicates that shacks not in backyards tend to be older than backyard shacks as summarised below. This corresponds to trend data relating to main dwelling types which indicates a higher growth rate for backyard shacks compared to shacks not in a backyard. As noted this may reflect sampling biases within the data.



²⁹ It would be unsurprising if many households, particularly those that rent their dwellings or those that occupy older dwellings, do not know when their dwellings were constructed. In such cases, the questionnaire directs respondents to provide a best estimate. There is no indicator in the data as to whether the household has estimated the answer or knows the answer.

³⁰ The exact survey question is: 'when was this dwelling originally built?'. Enumerators are instructed to 'mark the period in which the dwelling was completed, not the time of later remodeling, additions or conversions. If the year is not known, give the best estimate.' It is not entirely clear how a household who has recently rebuilt its shack following its destruction in a fire would answer the question. Does the year in which this dwelling was originally built refer to the original dwelling or to the rebuilt dwelling?

Data on tenure status can also provide an indication of permanence. The primary survey categories include rental, ownership (with or without a mortgage or other form of finance) and rent free occupation. Survey data on tenure from various data sources is summarised below. Broadly speaking, data from the 2001 Census, the 2007 Community Survey and the 2009 General Household Survey paint a similar picture. These sources indicate that while rental is relatively uncommon for shacks not in backyards (in contrast to backyard shacks where rentals dominate), a sizeable proportion of households say they own their dwelling.



Data on tenure status can be difficult to interpret. On the one hand those who say they own their dwellings may be communicating a strong sense of belonging and permanence despite the informal nature of the dwelling. On the other hand, they may have title, or official recognition. Alternatively those who say they own their dwellings may simply be referring to their ownership of the building materials used to construct their dwellings. While some respondents who own the physical materials used to build their dwellings, but not the land on which it is located, may indicate they occupy their dwellings rent free, others may justifiably indicate that they own their shacks. Data on rentals is also difficult to interpret. Some households who say they rent their shacks may own the building materials but rent the land; if they were to be evicted from the land they would still retain possession of the dwelling materials. Other renter households may rent both the structure and the land.

Ownership of other dwellings may be an indication of non-permanence and is therefore of interest. According to the 2009 GHS, for the province as a whole, very few households (roughly 4% of households) say they have another dwelling aside from their main dwelling.

4.5 Housing waiting lists and subsidy housing

According to the 2009 GHS, 48,000 (36%) of Western Cape households in shacks not in backyards have at least one member on the waiting list for an RDP or state subsidised house. Conversely, of the 140,000 Western Cape households with at least one member on the housing waiting list, 34% live in shacks not in backyards; 26% live in a dwelling/structure on a separate stand and 22% in a backyard shack. More than 50% of the households in shacks not in backyards have been on the waiting list for five or more years.

Data from the 2009 GHS explores whether any household members have received a government housing subsidy. For Western Cape households living in shacks not in backyards a very low percentage (2%) report having received a subsidy. Of course many households living in informal settlements that have received a subsidy are unlikely to own up to this.

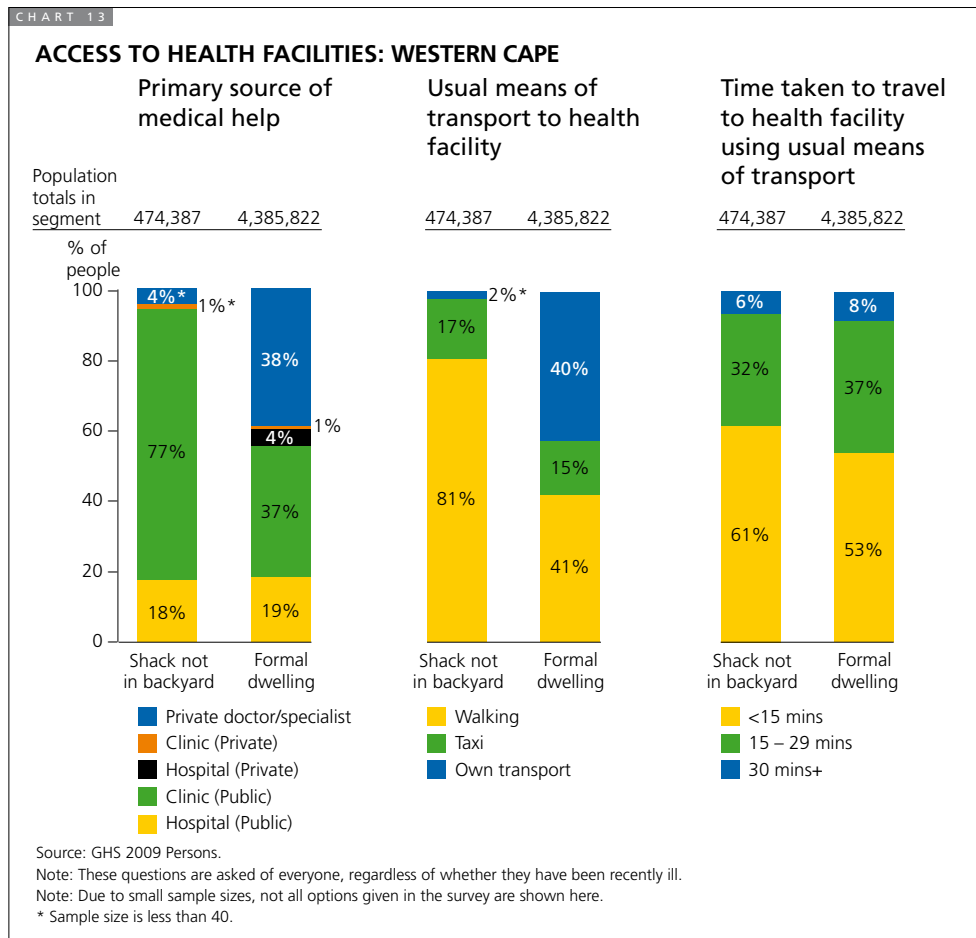
Data from the same survey can be used to explore how many households who live in shacks not in backyards might be eligible to obtain a subsidised house. Criteria include a household income of less than R3,500 per month, a household size of more than one individual, no ownership of another dwelling, and no previous housing subsidy received. Using these criteria, around 57,000 Western Cape households living in shacks not in backyards (42% of households in this category) appear to qualify to be on the waiting list.

When interpreting this data it is important to recall the definition of households used in surveys. Households are not necessarily stable units nor are they necessarily comprised of individuals who would choose to live together if alternative accommodation was available. It is therefore plausible that some households may reconstitute themselves if one current household member were to obtain a subsidised house.

4.6 Health and vulnerability

The 2009 GHS indicates that approximately 11% of individuals who live in a shack not in a backyard in the Western Cape say they have suffered from an illness or injury in the past month. This is lower than the disease burden reported by those living in formal dwellings (18%). Of course the subjective 'norm' may differ across communities. More affluent individuals living in formal dwellings in well-serviced neighbourhoods who are generally in good health may have a lower 'sickness threshold'; the symptoms they experience when they report being ill may not warrant a mention by an individual whose immunity is generally compromised. It should also be noted that there may be an age skew; those who live in informal settlements are on average younger. Holding other things constant, one should therefore expect a lower burden of disease for those living in shacks not in backyards.

Those living in shacks not in backyards are more likely than those who live in formal dwellings to use public clinics as their primary source of medical help. About 81% walk to their medical facility and almost everyone takes less than 30 minutes to get there using their usual means of transport (93%). This is not noticeably different from those who live in formal dwellings. Once again a word of caution is in order; the data may be biased towards better established dwellings that have access to facilities.



Contrary to strong anecdotal evidence, respondents who live in shacks not in backyards appear to be only slightly more likely to report being a victim of crime compared to other households. 25% of households in shacks not in backyards have a member who was a victim of crime in the last year, slightly higher than 22% for the province as a whole.

The data on crime is incomplete – while it records whether there has been an incident it does not explore how many incidents have taken place. Those who live in shacks not in backyards who have been victims of crime may be targeted more often than victims who live in other dwellings.

It is also plausible that those who live in shacks not in backyards might be more reluctant than other households to report having been a victim of crime. For instance, they may not want to draw the attention of law enforcement officials to their area given their own illegal status. Alternatively the lack of privacy within informal settlements may increase respondents' concern that neighbours (or the perpetrators of crime) might overhear their conversations with enumerators.

Another critical issue within informal settlements relates to risk of fire and flooding; the higher the density of the settlements and poorer the quality of building materials the greater the risk. None of the nationally representative surveys explore past experience of such events, exposure to these risks or ability to mitigate these risks should they occur. However there is some survey data relating

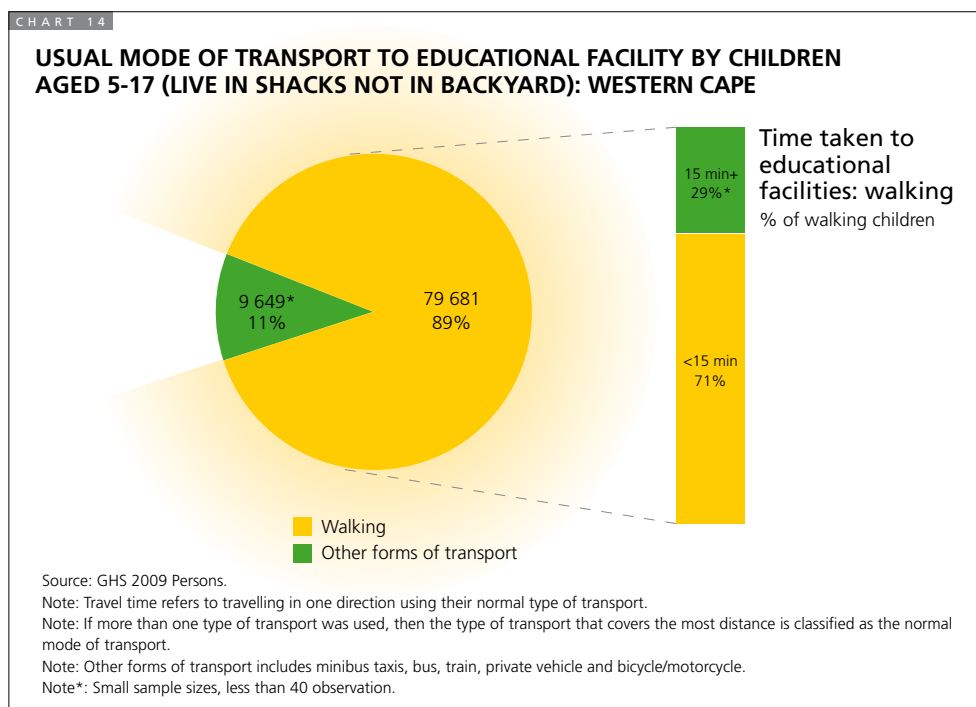
to the durability of the dwelling structure. According to the GHS, 76% of households living in shacks not in backyards live in dwellings where the conditions of the walls or the roof is weak or very weak. This is higher than for households who live in backyard shacks (66% have weak or very weak walls or roofs) and formal housing³¹ (where the corresponding statistic is 16%).

4.7 Education

In 2001, 10% of Western Cape adults aged 18 and above living in informal settlement EAs had no schooling; 14% had a Matric and a further 2% completed Technikon, University or other Post Matric.

According to the 2009 GHS, 77% of adults aged 18 and above living in shacks not in backyards have not completed matric. 94% of children aged 5 to 18 who live in shacks not in backyards go to school, equal to the provincial average³².

89% of school-going children who live in shacks not in backyards walk to school. As has been highlighted above, a word of caution is required in interpreting this data given potential biases in the sample design towards more established settlements. There is no data to determine whether these schools were built to service a newly created informal settlement or whether the school was originally built to meet the needs of more formal communities in the vicinity. In the case of the latter, the existence of a school may have been part of the impetus for the creation of an informal settlement.



³¹ Formal housing includes dwelling/house or brick structure on a separate stand/yard, flat/apartment in a block of flats, room/flatlet on a property or a larger dwelling/servants quarters, town/cluster/semi-detached house, dwelling/house/flat/room in backyard.

³² 26% of children in South Africa aged 0-4 living in shacks not in backyards currently attend an Early Childhood Development Centre (ECD) compared to 29% for the country as a whole, while 88% of children in South Africa aged 5 to 18 who live in shacks not in backyards go to school compared to the national average of 93%.

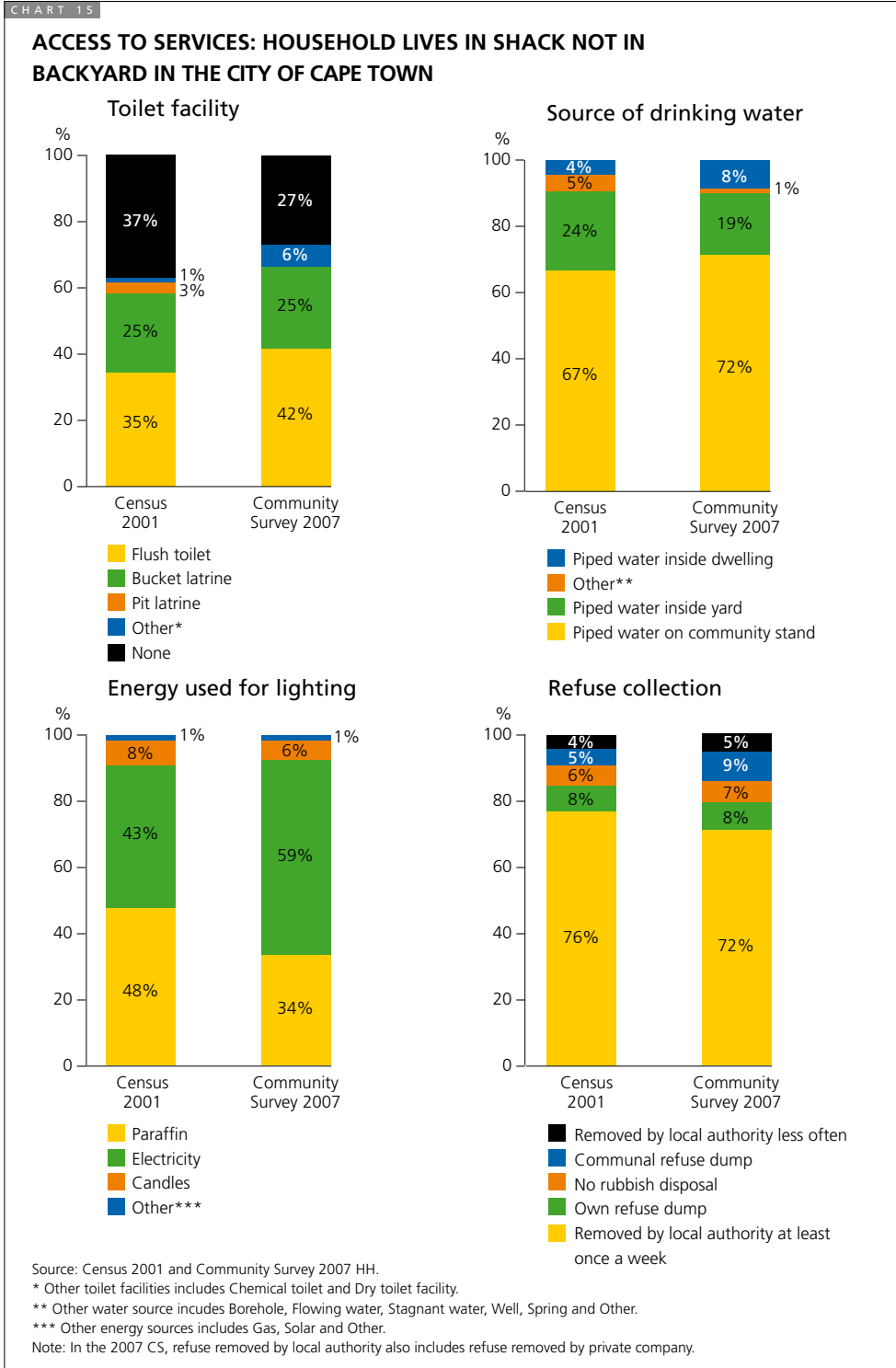
PART 5

Profiling informal settlements in the City of Cape Town

5.1 Basic living conditions and access to services

In 2001, 12% of City of Cape Town households living in informal settlement EAs had piped water in their dwelling or on their yard. A further 42% could obtain piped water within 200 metres of their dwellings. 40% had access to piped water in excess of 200 metres from their dwellings (there is no indication of how far away the water source is) while 6% had no access at all. 17% of households in informal settlement EAs used flush toilets, 33% used bucket latrines, 4% used pit latrines and 1% made use of chemical toilets; the remaining 44% had no access to toilet facilities. 30% of households in informal settlement EAs used electricity for lighting and 75% had their refuse removed by the local authority.

Key trends relating to access to services for households living in shacks not in backyards are summarised in the chart on the following page.



Access to services appears to have improved between 2001 and 2007; the proportion of households who live in shacks not in backyards who say they have no toilet facilities declined from 37% in 2001 to 27% in 2007. Drinking water access improved slightly while use of electricity for lighting increased from 43% to 59% between 2001 and 2007. An exception is refuse removal. In 2001, 80% of households that live in shacks not in a backyard had their refuse removed by the local authority. In 2007, 76% of households that live in a shack not in a backyard had their refuse removed by the local authority or a private company.

As has been highlighted, a word of caution is required in interpreting this data given potential biases in the sample design towards more established settlements where service provision is better.

5.2 Profile of households and families

In 2001, 27% of City of Cape Town households living in informal settlement EAs were single person households. The average household size was 2.9. 19% of households were living in over-crowded conditions. The majority of households were headed by males (63%).

According to the 2007 Community Survey, 16% of households living in shacks not in backyards comprise a single individual. 43% of households living in shacks not in backyards comprise four or more persons. The average household size of households living in shacks not in backyards is 3.4 (compared to 3.8 for those living in formal dwellings). 24% of City of Cape Town households living in shacks not in backyards live in over-crowded conditions (compared to 23% of Western Cape households living in shacks not in backyards)³³.

Household heads in shacks not in backyards are also noticeably younger than those in formal dwellings; 48% are under the age of 35 compared to 19% in households who live in formal dwellings.

105,000 children under the age of 18 live in shacks not in backyards corresponding to 36% of the total City of Cape Town population who live in such dwellings. According to the Community Survey 59% of households in shacks not in backyards have one or more children.

5.3 Employment

Data from the 2004 Labour Force Survey indicates an unemployment rate of 45% for adults living in shacks not in backyards in the City of Cape Town, significantly higher than the municipal unemployment rate of 20%. That same data source indicates that 34% of employed individuals living in shacks not in backyards are employed in the informal sector, a proportion that is the same as the municipal average. 52% are employed in the formal sector and a further 14% are domestic workers³⁴.

³³ A household is considered over-crowded if there are more than two people per room.

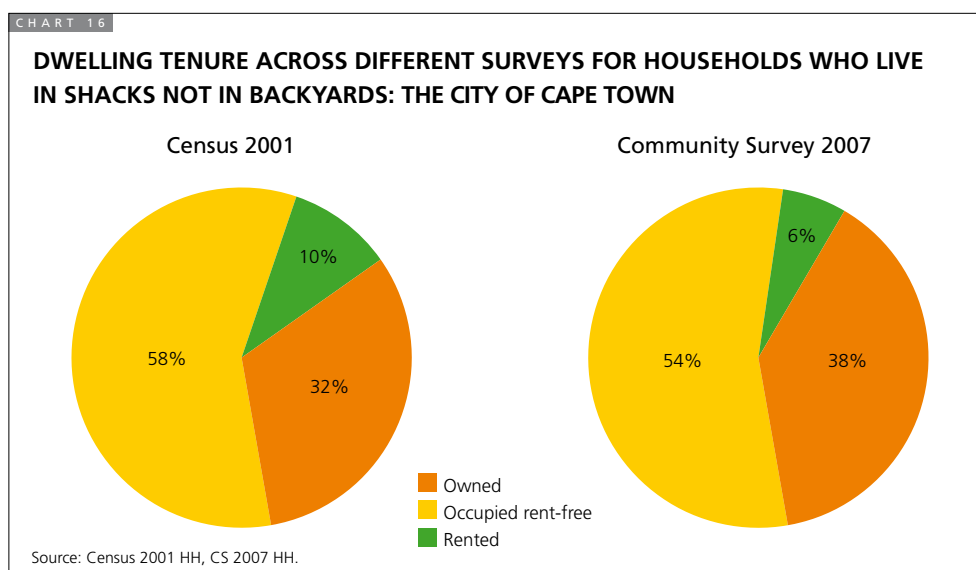
³⁴ Sample sizes are too small to assess employment in agriculture.

5.4 Age of settlements and permanence

In 2001, the majority of households living in informal settlement EAs in the City of Cape Town (63%) were living there five years previously. In 2001, 28% of households living in informal settlement EAs claimed to own their dwelling; 5% rented and 66% occupied the dwelling rent-free. 11% of City of Cape Town households in informal settlement EAs had another dwelling aside from their main dwelling.

Analysis of data from the 2007 Community Survey indicates that the majority of people living in a shack not in a backyard in 2007 had been living there for an extended period of time. Across the municipality, 66% said they had not moved since 2001.

Data on tenure status can also provide an indication of permanence. The primary survey categories include rental, ownership (with or without a mortgage or other form of finance) and rent free occupation. Data from the 2001 Census and 2007 Community Survey indicates that while rental is relatively uncommon for shacks not in backyards (in contrast to backyard shacks where rentals dominate) a larger proportion of households say they occupy their dwelling rent-free rather than own their dwelling.



5.5 Education

In 2001, 9% of City of Cape Town adults aged 18 and above living in informal settlement EAs had no schooling; 15% had a Matric and a further 2% completed Technikon, University or other Post Matric.

In 2001, 9% of adults aged 18 and above living in shacks not in backyards had no schooling; 16% had a Matric and a further 2% completed Technikon, University or other Post Matric. According to the 2007 Community Survey, 3% had no schooling; 14% had a Matric and a further 2% completed Technikon, University or other Post Matric. School attendance in 2007 for children under the age of 18 living in shacks not in backyards is lower than for the municipality as a whole (64% versus 69%).

PART 6

Conclusions

By their nature, informal settlements are difficult to monitor. They can change more rapidly than the systems designed to monitor them. Nevertheless, there is some data available.

The schema below summarises some of the most common indicators associated with individuals, households, dwellings and settlements. While the importance of the indicators depends on the analysis required, those indicators in red are thought to be particularly important to track over time in order to assess priorities for upgrading purposes. To populate this data, a range of data sources is required, including photography, household surveys, municipal data relating to services provided and available infrastructure as well as location and capacity indicators relating to facilities such as schools, hospitals and law enforcement.

CHART 17

INFORMAL SETTLEMENT INDICATORS

Individuals	Household level	Dwelling level	Settlement level
<ul style="list-style-type: none"> • Number • Age • Gender • Place of birth • Highest level of education • School attendance • Occupation • Marital status • Spouse live in the dwelling • Relationship to household head • Perception of key risks • Experience of key risks • Health levels • Experience of crime • Date moved to the settlement • Date moved into the dwelling 	<ul style="list-style-type: none"> • Number of households • Household size • Household composition • Household income • Year household moved to the settlement • Year household moved into the dwelling • Household level access to water, sanitation, electricity and refuse removal • Rental/ownership of land • Basis of land ownership (formal title or other) • Rental/ownership of dwelling • Number of people employed in the household • Number of grant recipients in the household 	<ul style="list-style-type: none"> • Number of dwellings • Dwelling size (rooms and squ. meterage) • Type of dwelling • Materials used to construct the dwelling 	<ul style="list-style-type: none"> • Number of settlements • Boundary and square meterage • Dwelling count and densities • Household count • Key community based organisations active in the settlement • Facilities, density and capacity indicators within/near settlement <ul style="list-style-type: none"> – Health – Safety – Social services – Education – Transport and roads – Commercial facilities • Proximity to and capacity of bulk service infrastructure • Burden of disease (as per health records) • Reported crime (as per police records or community forums) • Reported incidents of fire • Reported incidents of flooding • Land ownership • Geo technical characteristics
Household survey	Household survey	Household survey Aerial photography	Satellite photography Aerial photography Household surveys Municipal data Other agency data

PART 7

Contacts and references

List of key contacts

Alwyn Esterhuizen, AfriGIS (email and telephone)
Colin Cyster, PGWC (email)
Isabelle Schmidt Dr., Statistics South Africa (telephone and email)
Janet Gie, Strategic Information Development and GIS Department,
City of Cape Town (email and telephone)
Jeffrey Williams, Spatial Data Sourcing Unit, City of Cape Town (email)
Kenneth Kirsten, Department of Human Settlements, PGWC (email and telephone)
Maria Rodrigu, Chamber of Mines Information Services (email and telephone)
Niel Roux, Statistics South Africa (email and telephone)
Pieter Sevenshuysen, Remote Sensing and GIS Applications, GTI (email and telephone)
Rob Anderson, Statistics South Africa (email and telephone)
Stuart Martin, GTI (email and personal interview)

Other sources

Census 2001, Statistics South Africa
Community Survey 2007, Statistics South Africa
General Household Survey (various years), Statistics South Africa
http://www.info.gov.za/events/2011/sona/supplement_poa.htm
Income and Expenditure Survey 2005/6, Statistics South Africa
Labour Force Survey 2004, Statistics South Africa
2009 National Housing Code, Incremental Interventions:
Upgrading Informal Settlements (Part 3)
Bhekani Khumalo (2009), „The Dwelling Frame project as a tool of achieving socially-friendly Enumeration Areas boundaries for Census 2011, South Africa , Statistics South Africa
Catherine Cross (2010), „Reaching further towards sustainable human settlements , Presentation to DBSA 2010 Conference, 20 October 2010, HSRC
City of Cape Town (2006), Information and Knowledge Management Department, Strategic Information Branch, Informal Dwelling Count for Cape Town (1993-2005), Elvira Rodrigues, Janet Gie and Craig Haskins
City of Cape Town (2010), Strategic Development Information and GIS Department, Estimated Number of Households Living in Informal Settlements, Karen Small
Land and Property Spatial Information System (LaPsis) data, provided by the HDA
National Department of Human Settlement 2009/2010 Informal Settlement Atlas, provided by the HDA
Western Cape Department of Human Settlements provisional data, provided by the PGWC

PART 8

Appendix: Statistics South Africa surveys

8.1 Community Survey 2007

The 2007 Community Survey, the largest survey conducted by Stats SA, was designed to bridge the gap between the 2001 Census and the next Census scheduled for 2011. A total of 274,348 dwelling units were sampled across all provinces (238,067 completed a questionnaire, 15,393 were categorised as non-response and 20,888 were invalid or out of scope). There is some rounding of data (decimal fractions occurring due to weightings are rounded to whole numbers, therefore the sum of separate values may not equal the totals exactly) in deriving final estimates. In addition, imputation was used in some cases for responses that were unavailable, unknown, incorrect or inconsistent. Imputations include a combination of logical imputation, where a consistent value is calculated using other information from households, and dynamic imputation, where a consistent value is calculated from another person or household having similar characteristics.

Several cautionary notes on limitations in the data were included with the release of reports on national and provincial estimates in October 2007³⁵. The October 2007 release adjusted estimates of the survey at national and provincial levels to ensure consistency by age, population group and gender. Estimates at a municipal level were reviewed due to systematic biases (as a result of small sample sizes). These revisions used projected values from the 1996 and 2001 Censuses. Adjustments were made to the number of households separately to the number of individuals.

Direct estimates from the Community Survey are therefore not reliable for some municipalities. However, measurement using proportions rather than numbers is less prone to random error. Therefore the Community Survey is useful for estimating proportions, averages and ratios for smaller geographical areas.

8.2 General Household Survey

The target population of the General Household Survey consists of all private households in South Africa as well as residents in workers' hostels. The survey does not cover other collective living quarters such as students' hostels, old age homes, hospitals, prisons and military barracks. It is therefore representative of non-institutionalised and non-military persons or households in South Africa.

³⁵ More details on this can be found in the Community Survey statistical release provided by Stats SA (P0301.1).

The sample was selected by stratifying by province and then by district council. Primary Sampling Units (PSUs) were randomly selected from the strata and then Dwelling Units were randomly selected from within the PSUs. For the 2007 GHS, a total of 34,902 households were visited across the country and 29,311 were successfully interviewed during face-to-face interviews. For the 2009 GHS, a total of 32,636 households were visited across the country and 25,361 were successfully interviewed during face-to-face interviews. To arrive at the final household estimate the observations were weighted up to be representative of the target population.

8.3 Income and Expenditure Survey 2005/6

The Income and Expenditure Survey is a survey of the income and expenditure patterns of 21,144 households. This survey was conducted by Stats SA between September 2005 and August 2006. It is based on the diary method of capture. It is the most comprehensive nationally representative source for data on household income; however income estimates in this survey are lower than estimates in the national income accounts reported by the Reserve Bank. The Analysis of Results report published by Stats SA highlights that respondents will under-report income 'either through forgetfulness or out of a misplaced concern that their reported data could fall into the hands of the taxation authority'³⁶. No adjustments have been made.

8.4 Census 2001

The Statistical Act in South Africa regulates the country's Censuses. In general a census should be conducted every five years unless otherwise advised by the Statistics Council and approved by the Minister in charge. The Act also allows the Minister to postpone a census. In the case of the census meant to follow that of 2001, a postponement was granted in order to examine the best approach to build capacity and available resources for the next census. Consequently the next Census will only take place in late 2011.

8.5 Enumerator Areas

All EAs, which are mapped during the dwelling frame and listing process for Census, have a chance to be selected for the master sample used in the Stats SA sample surveys. Once an EA is listed, the listing is maintained, and it has a chance to be selected for a survey based on the Stats SA stratification criteria. Thus, the EA is chosen regardless of the classification that was done in Census 2001.

³⁶ Statistics South Africa (2008), Income and Expenditure of Households 2005/2006: Analysis of Results, Report No. 01-00-01, 2008.

TABLE 6 2011 ENUMERATION AREA TYPES				
2011 EA types	EA land-use/zoning	Acceptable range in dwelling unit (DUs) count per EA	Ideal EA dwelling unit count (DUs)	Geographic size constraint
Formal residential	Single house; Town house; High rise buildings	136-166	151	None
Informal residential	Unplanned squatting	151-185	168	None
Traditional residential	Homesteads	124-151	137	None
Farms		65-79	72	<25km diameter
Parks and recreation	Forest; Military training ground; Holiday resort; Nature reserves; National parks	124-151	137	None
Collective living quarters	School hostels; Tertiary education hostel; Workers' hostel; Military barrack; Prison; Hospital; Hotel; Old age home; Orphanage; Monastery	>500	500	None
Industrial	Factories; Large warehouses; Mining; Saw Mill; Railway station and shunting area	113-139	126	<25 km ²
Smallholdings	Smallholdings/ Agricultural holdings	105-128	116	None
Vacant	Open space/ Restant	0	0	<100 km ²
Commercial	Mixed shops; Offices; Office park; Shopping mall CBD	124-151	137	<25 km ²

Source: Statistics South Africa.

The Housing Development Agency (HDA)

Block A, Riviera Office Park,
6 – 10 Riviera Road,
Killarney, Johannesburg
PO Box 3209, Houghton,
South Africa 2041
Tel: +27 11 544 1000
Fax: +27 11 544 1006/7



www.thehda.co.za