



Municipal Human Settlement Demand Profile

Theewaterskloof Local Municipality

2015

As at 5 June 2015

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Introduction

This municipal human settlement demand profile has been generated by the Western Cape Department of Human Settlements for human settlement planning purposes. A range of data sources have been used, but the profile is based heavily on Census 2011 data. Data sources are provided below each graph or table. Where data has been manipulated, a methodology is provided in the end notes to this profile. The profile has been generated automatically using an online database with additional analysis added. Users will be able to update the data or view multiple representations of the data online. Separate Data Scoping and Housing Market Segment Reports were also prepared as informants to the demand profile and are referred to throughout the report.

The profile is presented according to the three components of human settlements: Housing, Networked Infrastructure and Social Infrastructure, followed by Trends, Analysis and Discussion.

Definitions

Term	Definition
Adequate housing:	All Census 2011 dwelling types excluding informal dwellings and informal backyard shacks. Includes traditional dwellings and formal backyard structures.
Dwelling type:	Census 2011 dwelling types, with the following three categories aggregated: Cluster/Townhouse/Semi-detached house (includes: Cluster house in complex; Townhouse (semi-detached house in a complex); and Semi-detached house); House/flat/room on other property (includes: House/flat/room in backyard; and Room/flatlet on a property or larger dwelling/servants quarters/granny flat); and Other (includes: Caravan/tent; and Other).
Housing status:	A re-categorisation of Census 2011 dwelling types, isolating those considered inadequate (informal dwelling and informal backyard dwelling) and adding a calculated figure for overcrowding. All other housing types in Census 2011 are considered adequate.
Inadequate housing:	Census 2011 figures for informal dwellings, informal backyard shacks and a calculated figure for overcrowding.
Income:	Household monthly income in 2011, modified from Census 2011 as described in end note 1.
Informal dwelling:	Census 2011 dwelling type: "Informal dwelling (shack; not in backyard; e.g. in an informal/squatter settlement or on a farm)", defined in the Census metadata as "Makeshift structure not approved by a local authority and not intended as a permanent dwelling. Typically built with found materials (corrugated iron, cardboard, plastic, etc.). Contrasted with formal dwelling and traditional dwelling."
Informal backyard shack:	Census 2011 dwelling type: "Informal dwelling (shack; in backyard)".

Term	Definition
Informal settlement:	All households (in any dwelling type) in Census 2011 settlement category: "Informal residential area".
Overcrowding:	A calculated figure based on an assumption of more than two people per room (as measured in the 2011 Census) resulting in overcrowding, and requiring an additional room for every two people. The number of overcrowded households is calculated using the assumption of one household and two rooms in every new dwelling. See end note 2 for a full explanation of the methodology.
Rural:	Census 2011 settlement categories: "Farms", Small holdings" and "Traditional residential".
Urban:	All Census 2011 settlement types excluding those included in the definition of Rural (above).

Housing

Dwelling type vs income profile

A description of the methodology used to re-categorise households using the Census 2011 monthly income brackets is provided in end note 1.

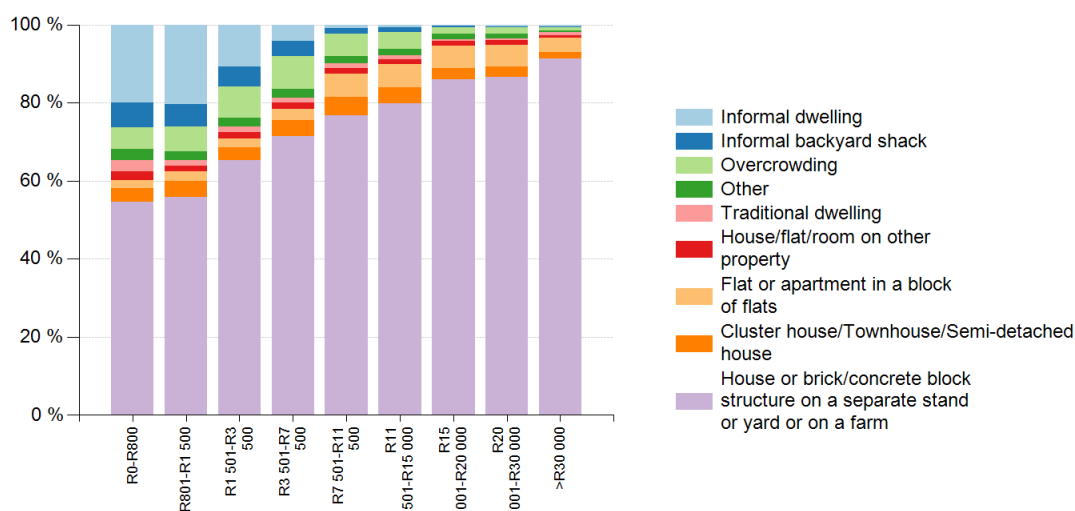


Figure 1: Proportion of households in each dwelling type by monthly household income bracket

	R0- R800	R801- R1 500	R1 501- R3 500	R3 501- R7 500	R7 501- R11 500	R11 501- R15 000	R15 001- R20 000	R20 001- R30 000	>R30 000	Total
Informal dwelling	1 043	929	936	256	17	7	3	4	5	3 199
Informal backyard shack	327	268	441	228	35	13	2	3	3	1 319
Overcrowding	294	290	684	515	121	46	14	18	10	1 992
Other	146	103	199	129	43	19	11	13	6	667
Traditional dwelling	155	70	132	85	26	10	4	6	9	497
House/flat/room on other property	117	64	140	97	28	14	10	13	9	491
Flat or apartment in a block of flats	103	115	186	169	132	63	46	60	45	918
Cluster house/Townhouse/Semi-detached house	184	184	297	253	99	43	23	29	19	1 132
House or brick/concrete block structure on a separate stand or yard or on a farm	2 859	2 559	5 650	4 326	1 661	849	693	943	1 119	20 658
Total	5 228	4 581	8 665	6 058	2 161	1 063	805	1 088	1 224	30 873

Table 1: Number of households by dwelling type and monthly household income category

(Source: Census 2011)

Theewaterskloof has a fairly typical dwelling type distribution across income brackets, with the majority of households in all income brackets housed in formal structures on separate stands. Approximately 60% of households fall into the R0-R3 500 income bracket and 87% of the population fall into the potentially subsidised R0-R15 000 income bracket. The proportions of Informal dwellings and informal backyard shacks decrease with increasing income up until the R15 001 to R20 000 bracket where they begin to level off at a very small amount, but the proportion of overcrowded households increases to a maximum in the R3 501-R7 500 income bracket before gradually declining as a proportion with increasing income.

Registered Housing Demand

From Western Cape Housing Demand Database

This section presents data from the official Housing Demand Database of the Western Cape Department of Human Settlements, which collates the housing demand data of all the non-metro municipalities. The figures presented here represent the 'registered demand', meaning those people that have put their names down on the municipal housing lists. It does not reflect the total demand in the municipality, which would comprise other households not registered on the database.

Total **registered housing demand** as at 2nd April 2015 for Theewaterskloof Local Municipality was recorded as **10 283**.

Present accommodation

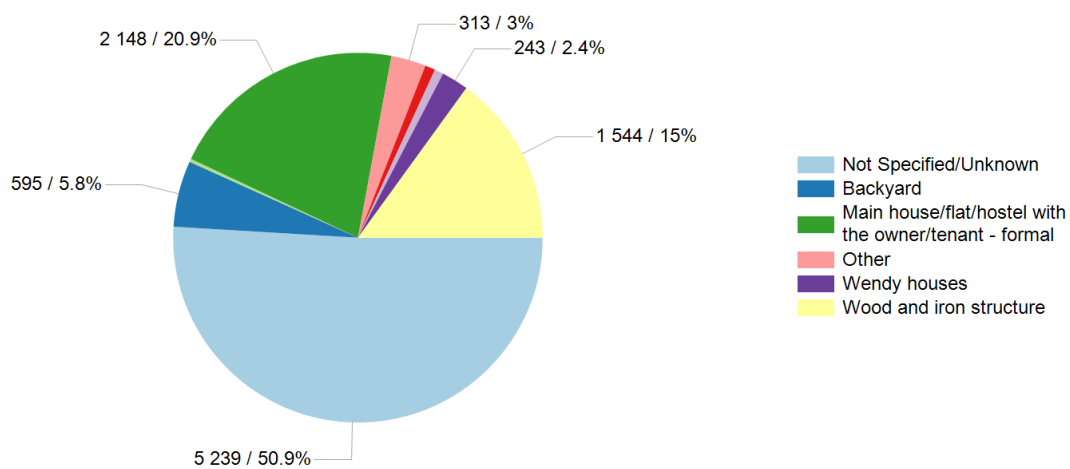


Figure 2: Number and proportion of households on the Housing Demand Database presently in each accommodation type (

Source: Western Cape Housing Demand Database

Choice of assistance

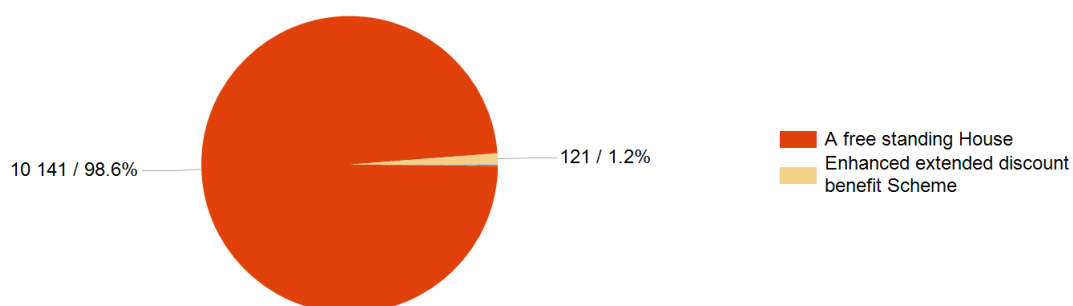


Figure 3: Number and proportion of households on the Housing Demand each assistance option

Source: Western Cape Housing Demand Database

Choice of tenure

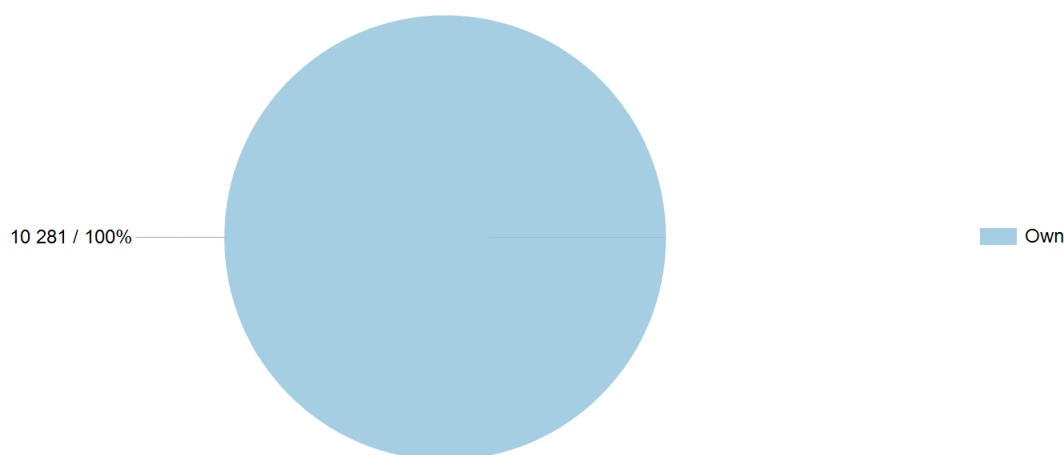


Figure 4: Number and proportion of households on the Housing Demand selecting each tenure option

Source: Western Cape Housing Demand Database

While a large portion of individuals registered on the Western Cape Housing Demand Database did not specify their present accommodation, of those that did, a large proportion live in the main house/flat/hostel with the owner/tenant, indicating that overcrowding is likely to be substantial. Those individuals living in wendy houses and wood and iron structures may be in backyards or in informal settlements. Almost 99% of households would prefer a free-standing subsidised house, with most the remainder applying for the Enhanced Extended Discount Benefit Scheme. Only 2 households indicated a preference for rental housing.

Housing status

Housing status refers to whether the dwelling type is considered 'adequate' or not. Inadequate housing comprises informal dwellings, informal backyard shacks and overcrowded dwellings. See the definitions and endnote 2 for a full explanation of the methodology employed to calculate overcrowding.

The total calculated number of inadequately housed households is **6 510**.

Housing status by income

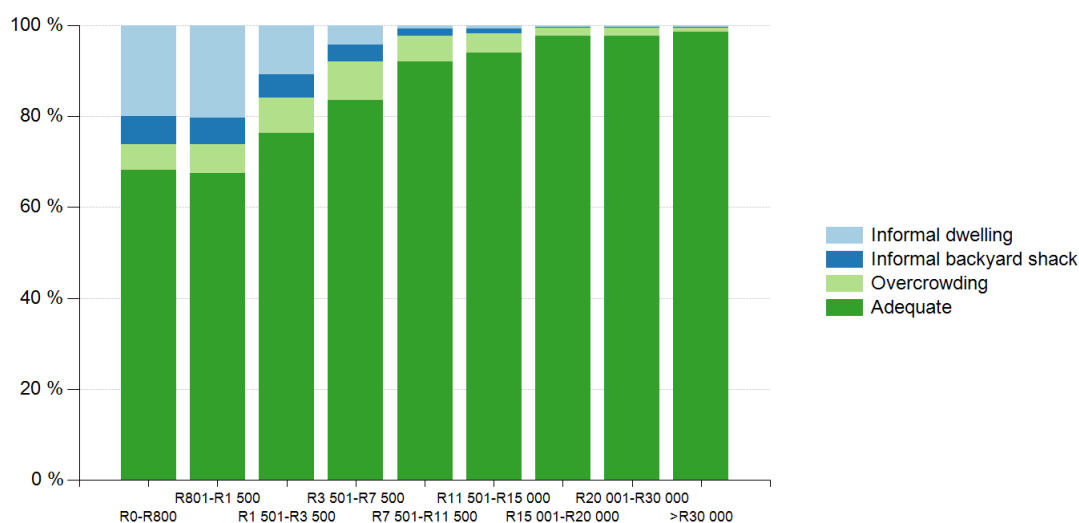


Figure 5: Proportion of households in each housing state by monthly household income bracket

	R0-R800	R801-R1500	R1501-R3500	R3501-R7500	R7501-R11500	R11501-R15000	R15001-R20000	R20001-R30000	>R30000	Total
Informal dwelling	1 043	929	936	256	17	7	3	4	5	3 200
Informal backyard shack	327	268	441	228	35	12	2	3	2	1 318
Overcrowding	294	290	684	515	121	46	14	18	10	1 992
Adequate	3 564	3 094	6 604	5 059	1 988	998	786	1 063	1 207	24 363
Total	5 228	4 581	8 665	6 058	2 161	1 063	805	1 088	1 224	30 873

Table 2: Number of households by housing status and monthly household income bracket

(Source: Census 2011)

The total calculated number of inadequately housed households (comprising those in informal dwellings, informal backyards and overcrowded dwellings) is **6 510**, which represents **21 %** of the total.

While the proportion of adequately housed households increases with income group, the largest number of inadequately housed households is located in the R1501- R3000 because of the increase in overcrowding and backyard shack dwellers in the income category. The

absolute numbers of inadequately housed households drop off rapidly above R7 500. In the 299 higher income households that are inadequately housed, the significant majority of this is due to overcrowding. Inadequately housed households earning less than R 1 500 per month are fairly are mostly in informal dwellings, but this drops off as incomes increase above R1501 as inadequate housing is increasingly due to overcrowding.

Housing status by income and age

The figures and tables below present the same data as for Figure 5 and Table 2, but divided into household heads aged below 40 years (Figure 6) and those above 40 years (Figure 7).

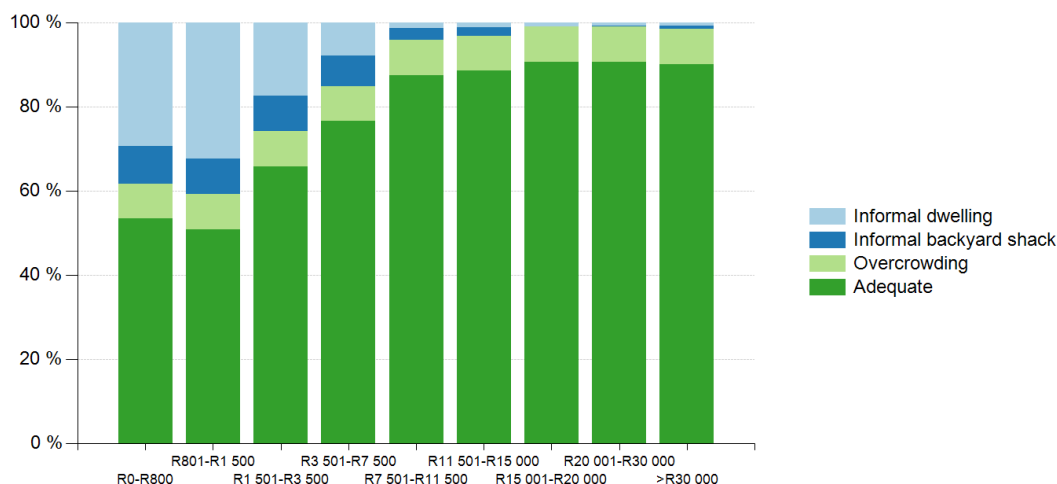


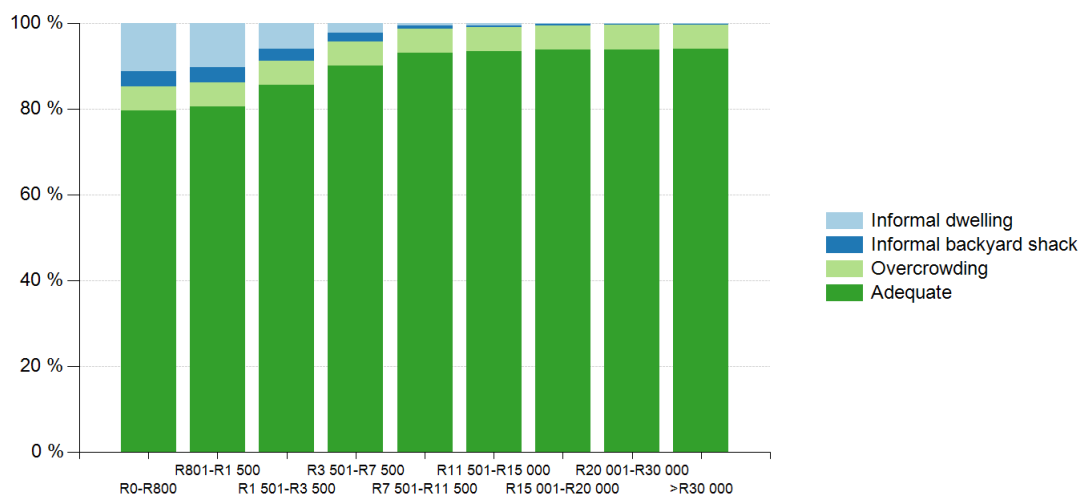
Figure 6: Proportion of household heads below 40 years in each housing state by monthly household income bracket

	R0-R800	R801-R1500	R1501-R3500	R3501-R7500	R7501-R11500	R11501-R15000	R15001-R20000	R20001-R30000	>R30000	Total
Informal dwelling	736	670	634	166	9	4	2	2	2	2 225
Informal backyard shack	225	177	306	154	21	7	0	1	2	893
Overcrowding	210	174	305	178	61	29	21	27	24	1 029
Adequate	1 345	1 057	2 406	1 634	640	310	227	296	255	8 170
Total	2 516	2 078	3 651	2 132	731	350	250	326	283	12 317

Table 3: Number of household heads aged **below** 40 years in each housing state by monthly household income bracket

Source: Census 2011

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	R0-R800	R801-R1 500	R1 501-R3 500	R3 501-R7 500	R7 501-R11 500	R11 501-R15 000	R15 001-R20 000	R20 001-R30 000	>R30 000	Total
Informal dwelling	309	260	295	85	7	3	1	1	2	963
Informal backyard shack	100	93	136	73	11	4	2	2	1	422
Overcrowding	157	144	277	213	81	41	33	46	57	1 049
Adequate	2 226	2 059	4 199	3 414	1 341	685	557	765	943	16 189
Total	2 792	2 556	4 907	3 785	1 440	733	593	814	1 003	18 623

Table 4: Number of household heads aged **above** 40 years in each housing state by monthly household income bracket

Source: Census 2011

Dwelling type by age of household head

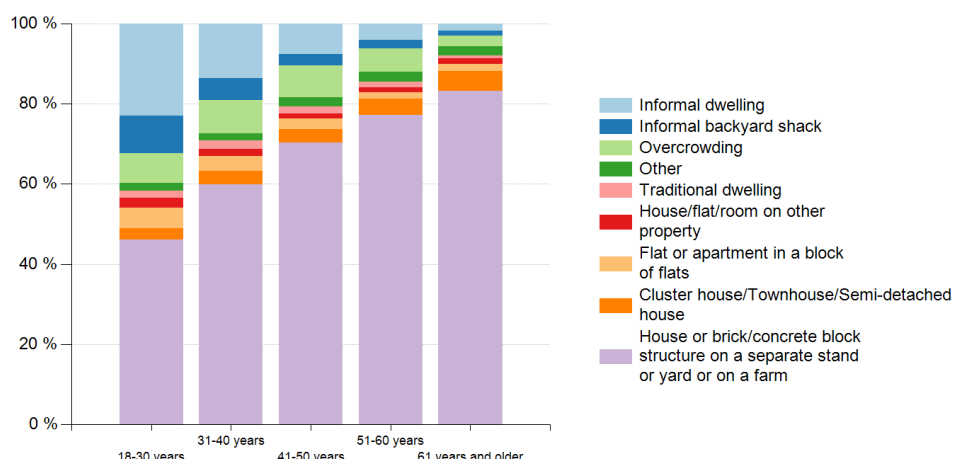


Figure 7: Proportion of households in each dwelling type by age bracket of household head

Source: Census 2011

There are proportionately significantly more inadequately housed household heads that are below 40 years of age, at 34% than above 40 years of age at 13%. This is related to the differences in income profile, with younger household heads, having generally lower incomes, although even in low income categories household heads over 40 are more likely to be adequately housed. The distribution of inadequately housed households between overcrowding and informal backyard shacks differs for each age category with overcrowding remaining a source of inadequate housing over the age of 40 while backyards shacks decline. There are significantly more young households in informal dwellings. The distribution of dwelling type by age groups is similar to the distribution by income group, with formal housing types increasing and inadequate housing types decreasing with increasing age. This indicates a strong correlation between income and age, rather than a relationship between age and dwelling type.

Urban/Rural split of inadequate housing

The figure and table below aggregate Census settlement types into those classified as 'urban' and 'rural' (see definitions) and present the number of inadequately housed households in these two settlement categories to illustrate where the housing challenge lies.

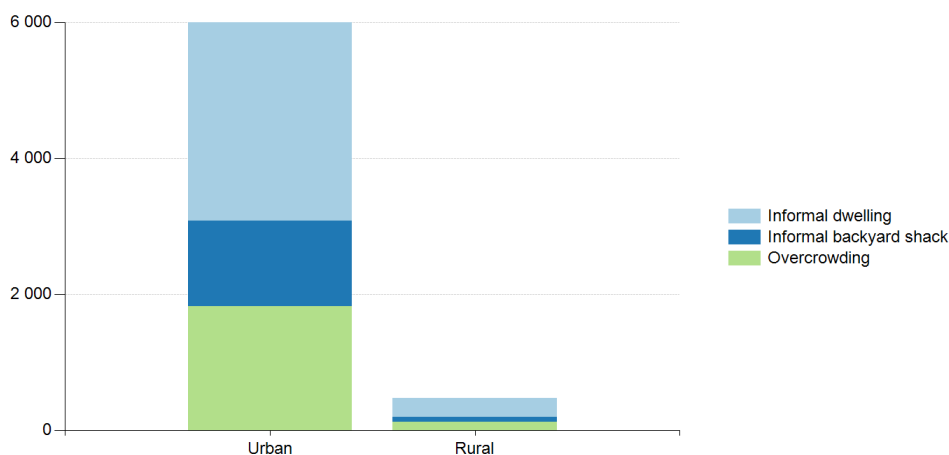


Figure 8: Number of inadequately housed households by housing status and settlement type

	Urban	Rural	Total
Informal dwelling	2 916	282	3 198
Informal backyard shack	1 251	70	1 321
Overcrowding	1 827	124	1 951
Total	5 994	476	6 470

Table 5: Number of inadequately housed households by housing state and settlement type

Source: Census 2011

The urban/rural split of inadequately housed households clearly shows that the housing challenges are in the urban areas of the municipality, dispersed amongst its several towns, the greatest proportion of these households are in informal dwellings. The small proportion of rural households that is inadequately housed is largely subject to informal dwellings, with relatively little informality.

Tenure

This section analyses the current tenure status of households, according to the Census categories, by the variables of: income, age and employment.

Tenure status by housing status

	Informal backyard shack	Informal dwelling	Adequate	Overcrowding	Total
Other	71	336	2 596	161	3 164
Occupied rent-free	439	2 298	5 721	721	9 179
Rented	509	150	4 606	280	5 545
Owned but not yet paid off	55	155	1 741	108	2 059
Owned and fully paid off	246	260	9 699	712	10 917
Total	1 320	3 199	24 363	1 982	30 864

Table 6: Number of households in each tenure category and housing state

Source: Census 2011

Note: The Housing Market Segments Report noted that the figures for ownership of informal dwellings and informal backyard shacks are not reliable as there is some uncertainty over the legal status of these dwellings and the properties on which they are located.

Tenure status by monthly income group

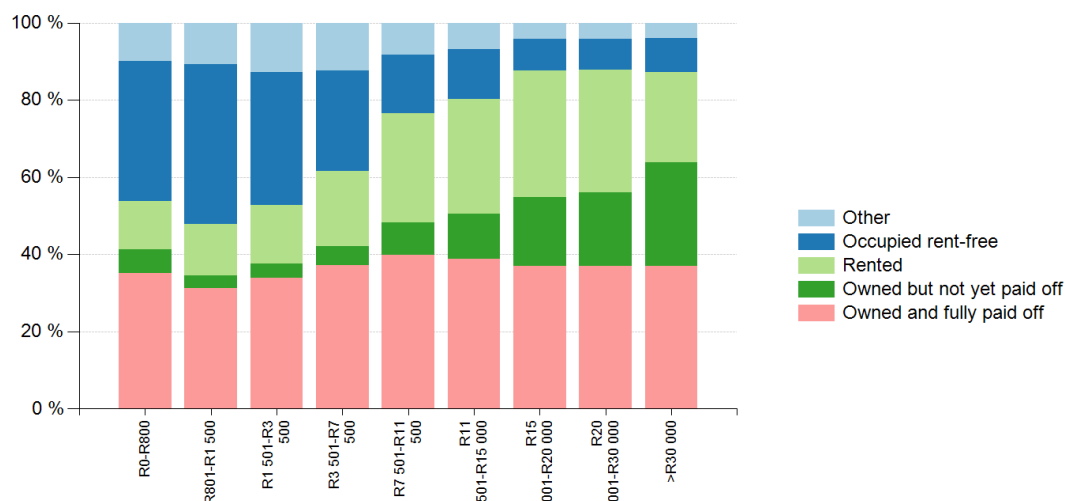


Figure 9: Proportion of households in each tenure category by monthly household income bracket

	R0-R800	R801-R1500	R1501-R3500	R3501-R7500	R7501-R11500	R11501-R15000	R15001-R20000	R20001-R30000	>R30000	Total
Other	484	459	1 012	687	168	70	33	44	47	3 004
Occupied rent-free	1 795	1 778	2 748	1 437	311	130	64	87	107	8 457
Rented	619	572	1 226	1 088	574	303	261	339	285	5 267
Owned but not yet paid off	299	139	283	266	174	118	140	205	326	1 950
Owned and fully paid off	1 740	1 343	2 712	2 066	812	395	293	395	449	10 205
Total	4 937	4 291	7 981	5 544	2 039	1 016	791	1 070	1 214	28 883

Table 7: Number of households in each tenure category and monthly household income bracket

Source: Census 2011

Tenure status by age of head of household

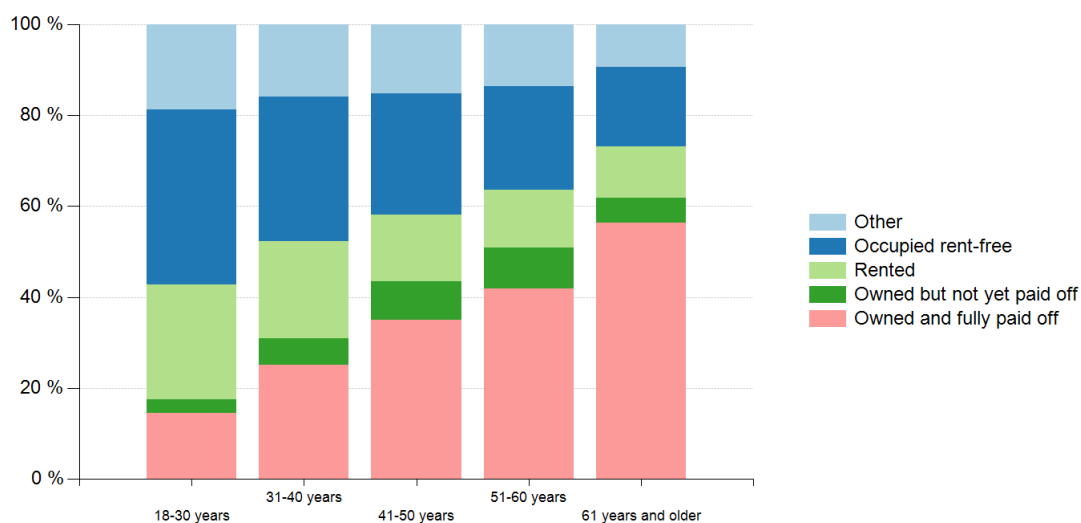


Figure 10: Proportion of households in each tenure category by age bracket of household head

	18-30 years	31-40 years	41-50 years	51-60 years	61 years and older	Total
Other	1 023	1 193	1 132	717	428	4 493
Occupied rent-free	2 105	2 387	1 982	1 202	803	8 479
Rented	1 368	1 598	1 103	672	523	5 264
Owned but not yet paid off	170	443	628	479	248	1 968
Owned and fully paid off	789	1 874	2 604	2 212	2 591	10 070
Total	5 455	7 495	7 449	5 282	4 593	30 274

Table 8: Number of households in each tenure category and age bracket of household head

Source: Census 2011

The tenure status figures indicate that there are about double the amount of owned fully-paid off properties to the number of households in adequate housing rent al in the municipality. Roughly 60% of households rent in lower income groups and this decrease to about 40% as incomes rise to greater than R30 000. Overall, 48% of households rent or occupy their homes rent free. Rent-free accommodation is common below an income of R7 500 per month, but drops off incrementally above this. The comparison of tenure status by age of

household head shows a general trend of younger household heads occupying properties rent free, which drops off incrementally with increasing age, with an increase of owned and fully paid off properties amongst older household heads.

Housing status by age and employment status of household head

The Housing Market Segments Report identified employment status as an important determinant of housing and tenure preference. The tables below illustrate the split in housing status according to both age and employment status to more accurately identify the socio-economic profile of housing demand.

Employed household heads

	18-30 years	31-40 years	41-50 years	51-60 years	61 years and older	Total
Informal dwelling	927	742	381	104	17	2 171
Informal backyard shack	368	303	144	59	12	886
Overcrowding	321	497	455	202	23	1 498
Adequate	2 756	4 474	4 687	3 087	851	15 855
Total	4 372	6 016	5 667	3 452	903	20 410

Table 9: Number of employed household heads in each housing state and age bracket

Source: Census 2011

Unemployed household heads

	18-30 years	31-40 years	41-50 years	51-60 years	61 years and older	Total
Informal dwelling	346	279	202	121	71	1 019
Informal backyard shack	153	104	63	56	54	430
Overcrowding	85	121	152	117	101	576
Adequate	578	956	1 478	1 714	3 753	8 479
Total	1 162	1 460	1 895	2 008	3 979	10 504

Table 10: Number of unemployed household heads in each housing state and age bracket

Source: Census 2011

The analysis of housing status by age and employment status of household head does not indicate the obvious trend that employed household heads are more likely to live in adequate housing. It is also interesting to note that there are more employed household heads in informal dwellings and informal backyard shacks than unemployed household heads, across all age groups up to age 50. It is only after age 50 that this trend reverses, with unemployment linked to higher levels of informality. The location of employed younger adults in informal accommodation is significant and may indicate that this accommodation serves to house this segment of the population.

Estimated Subsidy non-qualification

The National Housing Code specifies the conditions for qualification for assistance through one of the national housing programmes. The four essential qualification criteria that have been used to calculate the number of non-qualifiers in the municipality are:

1. South African resident;
2. 18 years old and above;
3. Not have previously benefited from a government housing subsidy assistance;
4. Did not previously own residential property;
5. Married or cohabiting or with financial dependents;
6. Earning less than the qualifying monthly household income threshold

Most subsidy programmes apply to households earning less than R3 500 per month, but the Finance-Linked Subsidy Programme (FLISP) applies to households earning between R3 500 and R15 000 per month.

A detailed description of the process to calculate the number of non-qualifiers for housing subsidies is provided in end note 3. The income criteria have been included in the analysis by presenting the data in two graphs: one for households earning R0 - R3 500 per month and one for households earning R3 500 - R 15 000. The age criterion has been included by only counting households where the household heads are aged above 18 years. The reasons for non-qualification are therefore given on the figures below as:

1. Being a foreign born resident
2. Having received a housing subsidy previously - from the Western Cape Housing Subsidy System
3. Having previously owned a house (without subsidy assistance) - Households currently owning property less those having received a subsidy
4. Not having dependents - measured as households of only 1 person

The numbers of households who do not qualify for housing subsidies have been calculated using a range of sources, and should therefore be treated as an estimate only. Note that the Housing Subsidy System does not record the number of subsidies awarded by municipality, so these have had to be split by the proportions of low income households in each municipality in relation to the provincial total.

There are estimated to be **11 302** households earning below R3 500 per month and **4 873** households earning between R3 500 and R15 000 per month that do not qualify for subsidies. This amounts to 66 % of households earning less than R3 500 per month and 57 % of households earning between R3 500 and R15 000 per month. This does not account for the ability of households to access credit as an additional qualification criterion for the FLISP.

Note: These are estimates generated through the study and are meant to provide an indicative sense of the status of subsidy non-qualification.

Estimated Subsidy non-qualifiers earning less than R3 500 / month

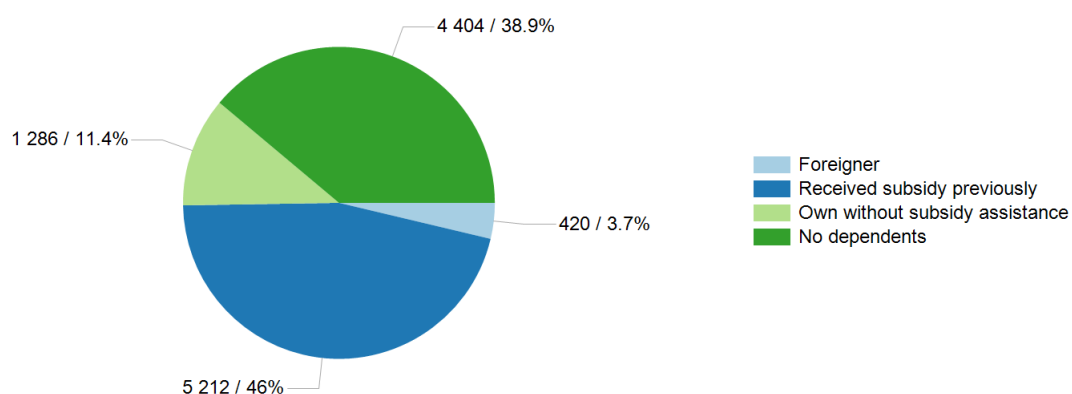


Figure 11: Number and proportion of households (<R3 500/month) not qualifying for housing subsidies by reason

Own calculations using the following sources: Census 2011; Western Cape Housing Demand Database; Western Cape Housing Subsidy System

Estimated Subsidy non-qualifiers earning R3 500 - R15 000 / month

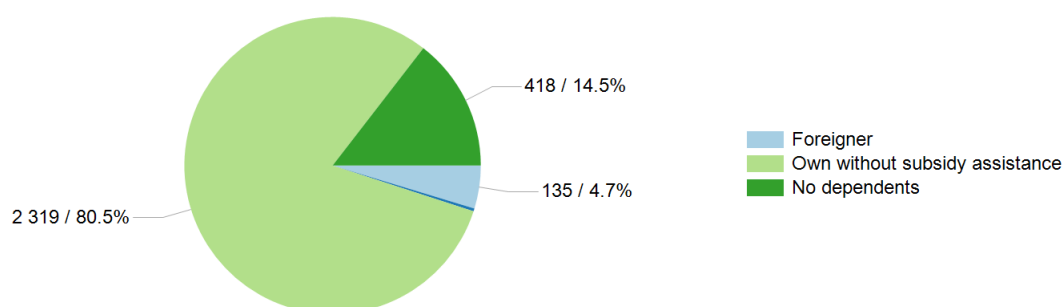


Figure 12: Number and proportion of households (<R3 500-R15 000/month) not qualifying for housing subsidies by reason

Own calculation using the following sources: Census 2011; Western Cape Housing Demand Database; Western Cape Housing Subsidy System

Profile of informal settlements

Overall statistics

Indicator	Source	Year	Total
Total number of informal settlements	Western Cape Informal Settlement Database	2011	14
	Western Cape Informal Settlement Database	2014	18
Total number of informal settlement dwellings	Western Cape Informal Settlement Database	2011	4 016
	Western Cape Informal Settlement Database	2014	4 562
Total number of households in informal residential areas	Census	2011	3 627
Total number of households in informal dwellings	Census	2011	3 198

Table 11: Overall statistics on informal settlements

Note: Figures from the Western Cape Informal Settlements Database for 2014 have not yet been verified.

The figures below are based on an analysis of the Census data for households in informal dwellings, and not for the informal residential settlement category (see definitions section for more details). In most municipalities the number of households in informal dwellings is higher than the number of households in informal residential areas, and the former number is therefore believed to be more inclusive.

Income profile of households in informal dwellings

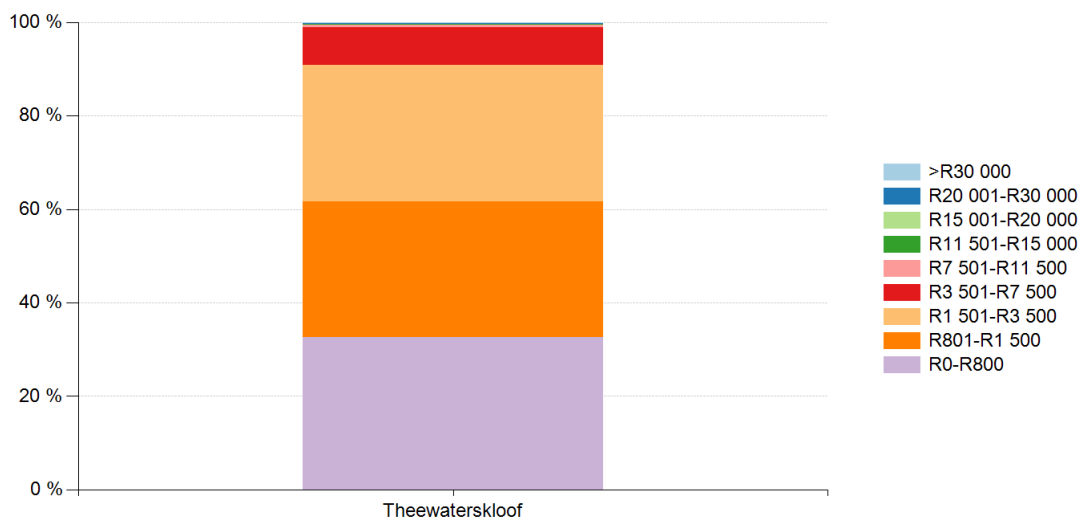


Figure 13: Proportion of households in informal dwellings in each monthly household income bracket

Source: Census 2011

Age profile of household heads in informal dwellings

Figure 15: Number and proportion of household heads in informal settlements in each age bracket

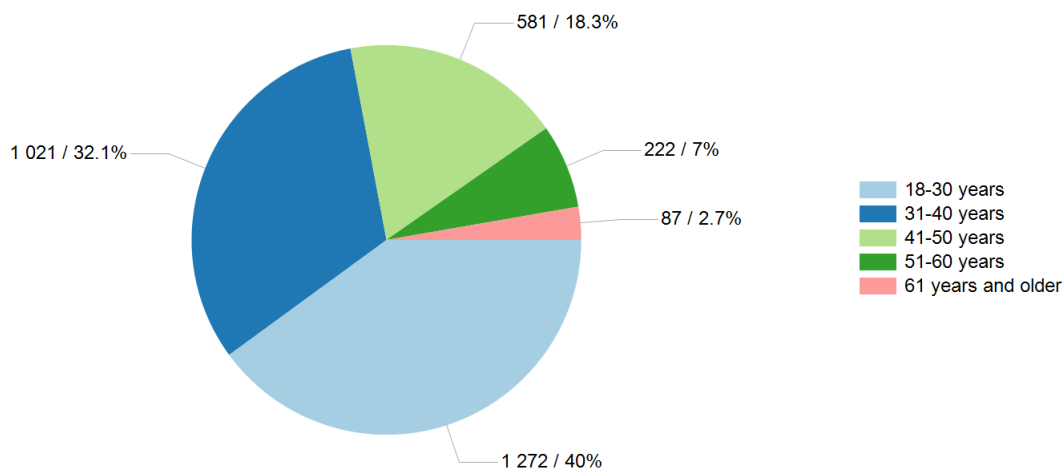


Figure 14: Number and proportion of household heads in informal settlements in each age bracket

Source: Census 2011

Employment status of household heads in informal dwellings

Figure 16: Number and proportion of informal settlement household heads by employment status

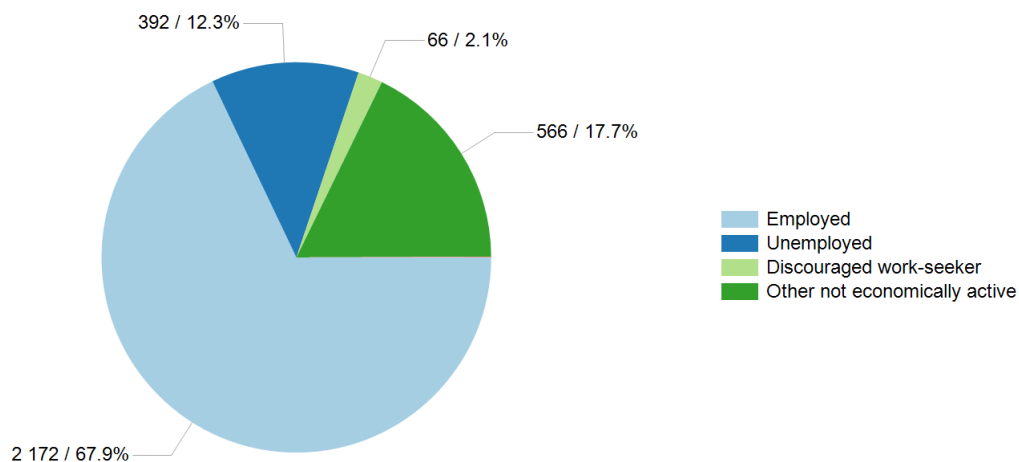


Figure 15: Number and proportion of informal settlement household heads by employment status

Source: Census 2011

Over 95% of households heads in informal dwellings earn less the R7 500 per month, and over 90% earn less than R3 500. The majority of household heads (72%) in informal dwellings are between 18 and 40 years of age. However, nearly 68% of household heads in informal dwellings are employed. This is a high level of employment and suggest that further increasing employment is not likely to impact much on the requirement of housing provision.

Networked Infrastructure

This section looks at access to engineering services by housing type to try and identify where the largest numbers of un-serviced households lie. The Census data for the three services of water, sanitation and electricity are then cross-tabulated against each other to provide an indication of the number of households that have none of the three services, relative to their housings status. It is not possible to include overcrowded households in this analysis because of the structure of the Census data.

Definitions used for un-serviced households

Water: No access to piped water within 200m

Electricity: Lack of access to electricity for lighting

Sanitation: Lack of access to waterborne toilet facilities or Ventilated Improved Pit toilet

Waste: Service levels other than kerbside collection

ICT: No access to the internet from home

Lack of access to networked services

	Water	Electricity	Sanitation	Waste	ICT
Informal dwelling	632	2 389	1 924	1 007	3 189
Informal backyard shack	68	163	331	59	1 317
Adequate	217	619	1 164	3 977	21 790
Total	917	3 171	3 419	5 043	26 296

Table 12: Number of un-serviced households by service and housing status

Source: Census 2011

Percentage of un-serviced households by service

	Water	Electricity	Sanitation	Waste	ICT
Informal dwelling	20 %	75 %	60 %	31 %	100 %
Informal backyard shack	5 %	12 %	25 %	4 %	100 %
Adequate	1 %	3 %	5 %	16 %	89 %

Table 13: Percentage of households in each housing state that are un-serviced with each service

Source: Census 2011

Adequate dwellings in Theewaterskloof are relatively well served by network infrastructure, although waste collection is low, with 16% un-served. The biggest backlogs are electricity and sanitation in informal dwellings, with 75% and 60% un-served respectively. Sanitation in informal backyard shacks is also a low, with 25% un-served. Landline internet access to all categories of housing is low.

Number of un-serviced households (combined water, electricity and sanitation services)

	R0- R800	R801-R1 500	R1 501- R3 500	R3 501- R7 500	R7 501- R11 500	R11 501- R15 000	R15 001- R20 000	R20 001- R30 000	>R30 000	Total
Informal dwelling	233	122	127	39	2	1	0	0	0	524
Informal backyard shack	11	13	6	0	0	0	0	0	0	30
Adequate	16	11	13	3	1	0	0	0	0	44
Total	260	146	146	42	3	1	0	0	0	598

Table 14: Number of households in each settlement type without water sanitation and electricity

Source: Census 2011

This table shows that there are 598 households that do not have access to all three services. . Most of these households are in informal dwellings (524). All households but 4 without services earn less than R7 500, although 552 earn less than R3 500.

Dependence on public transport

The only complete data set relating to public transport was the Census data on household access to private motor cars. This indicator gives an indication of exclusive dependence on public transport.

	Theewaterskloof	Percentage of households in each housing status category without motor car
Informal dwelling	3 078	96.2%
Informal backyard shack	1 203	91.2%
Adequate	14 930	61.3%
Total	19 211	66.5%

Table 15: Number of households with no access to a private motor car

Source: Census 2011

The table shows there are 19 211 households (67%) that do not have access to a private motor car and are therefore assumed to be reliant on public or non-motorised transport.

Social Infrastructure

The social infrastructure analysis investigated data on a range of provincial social facilities and municipal community facilities and compared these against norms and standards provided in the CSIR Guidelines for the Provision of Social Facilities in South African Settlements (2012). The CSIR Guidelines provide nuanced guidance regarding the norms to be applied in various contexts. These norms comprise distance and population thresholds for settlements of different sizes. The population thresholds only have been simplified and used here only to benchmark existing provision, and the thresholds should be critically assessed using the CSIR Guidelines for planning purposes. An explanation of the method for selecting the population thresholds and for data manipulation is provided in endnote 4.

Indicators for facilities for which there are no CSIR norms, or where data is highly variable between municipalities have been omitted. For most of the CSIR norms, a range is provided. For comparison purposes, the average value is used, except where this average value is greater than the municipal population, in which case the minimum of the range is used.

The indicator that is used in each category of social infrastructure is the average population per facility of each type, using the estimated municipal population in **2014** as projected by PwC for the Western Cape Department of Social Development.

Coverage of health facilities

	Average population per facility	CSIR Norm	Coverage relative to norm
Public Clinics	6 295	47 000	Better

Table 16: Coverage of health facilities (Sources: Directorate: Planning - Geographic Information Systems, Western Cape Government: Department of Human Settlements)

Coverage of education facilities

	Average population per facility	CSIR Norm	Coverage relative to norm
Secondary School	14 163	12 500	Worse
Primary School	3 237	7 000	Better
Early Childhood Development and Creche	1 857	2 700	Better

Table 17: Coverage of education facilities (Sources: Directorate: Planning - Geographic Information Systems, Western Cape Government: Department of Human Settlements; Directorate: Research, Population and Knowledge Management - Western Cape Government: Department of Social Development)

Note that coverage of creches only includes facilities registered on the provincial database and does not include unregistered creches.

Coverage of safety facilities

	Average population per facility	CSIR Norm	Coverage relative to norm
Police stations	18 884	80 000	Better

Table 18: Coverage of safety facilities (police stations) (Source: Directorate: Planning - Geographic Information Systems, Western Cape Government: Department of Human Settlements)

Coverage of other public facilities

	Average population per facility	CSIR Norm	Coverage relative to norm
Local Libraries	12 590	45 000	Better
Thusong Centres	0	113 306	Worse
Cemeteries	18 884	50 000	Better

Table 19: Coverage of other public facilities (Source: Directorate Planning - Geographic Information Systems, Western Cape Government: Department of Human Settlements; City of Cape Town)

Note that where zeros appear for Thusong Centres and cemeteries this may be because of a lack of data.

Theewaterskloof generally has adequate social infrastructure for its population, however it seems to have a shortfall of secondary schools and Thusong Centres. The extent to which the CSIR norms can be applied to Theewaterskloof is unclear, though, these norms are intended to apply to towns, not municipalities, and Theewaterskloof includes 7 discrete towns.

Note that these observations are in relation to the CSIR population threshold norm for the equivalent category of settlement, and does not consider distance thresholds.

Trends

Selected trends relevant to human settlements

Indicator	Source	Value	WC Average
Annual average economic growth (2001-2011)	Quantec	3.9 %	4.1 %
Annual average household growth rate (2001-2011)	Census	1.7 %	3.1 %
Annual average population growth rate (2001-	Census	1.6 %	2.6 %

Indicator	Source	Value	WC Average
2011)			
New informal settlements (2011-2014)	WC Informal Settlement Database	4	1
Percentage change in household size (2001-2011)	Census	-1.6 %	-0.5 %

Table 20: Selected trends relevant to human settlements

Theewaterskloof Local Municipality contains the very high potential growth towns of Caledon as measured by the 2014 Growth Potential of Towns Study.

Analysis and discussion

General discussion

The human settlements challenge in Theewaterskloof is significant with 21% of household inadequately housed. Approximately 80% of these households earn less than R3 500 per month. The municipality has experience middling economic growth in comparison to other non-metro municipalities in the province since 2001, but low household growth, suggesting that household should lead to less pressure on the provision of human settlements. However, four new informal settlements have been identified in the municipality since 2011, well above the provincial average of one. Caledon, one of the seven significant towns in the municipality has been identified as a very high potential growth town in the province.

The number of inadequately housed household was calculated to be 6 510, while the Western Cape Housing Demand Database records 10 283. This difference may be a result of an overestimate on the database (most likely), significant growth since the Census, or errors in the interpretation and manipulation of the Census figures to calculate housing status. However, these two figures provide useful ranges for the planning of human settlement interventions.

A key finding is that many household heads in informal settlements are employed, indicating that they may be able to contribute to housing and services. While this raises the option of rental, the location of the informal settlements needs to be borne in mind, because the location may be key to accessing employment opportunities and minimising recurrent costs.

The municipality is relatively well served with networked and social infrastructure in formal housing, although sanitation and electricity provision in informal dwellings are low. Sanitation in informal backyard shacks is also problematic and waste solid waste provision could be improved in both adequate and informal dwellings. Supply of secondary schools appear to be short given the population size.

Overall Housing Market Segmentation

The diagram below provides an estimate of the number of households in each of the market segments identified in the Housing Market Segments Report. There are three dimensions to

the figure. Firstly, the horizontal axis is divided into the standard income brackets used in this report, corresponding to subsidy qualification criteria or credit limits identified in the Housing Market Segments Report. Secondly, the vertical axis is divided into the rental and ownership markets. Thirdly, the rental and ownership markets are divided into subsidy qualifiers and non-qualifiers, based on the estimates provided earlier in this profile. See end note 4 for an explanation of the ownership/rental division and the split of non-qualifying households. See end note 5 for a detailed description of the components of the housing market segment diagram.

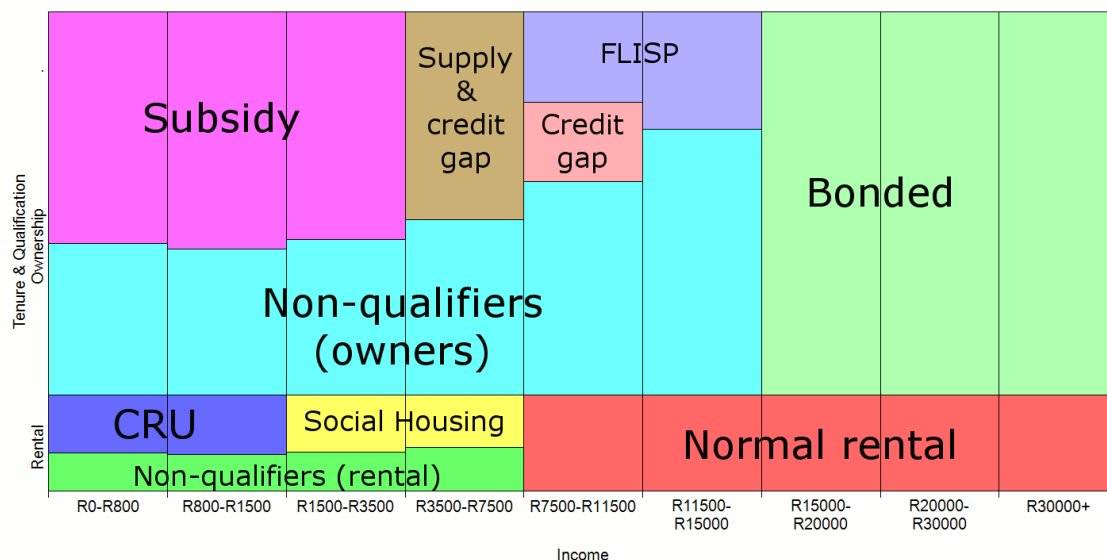


Figure 16: Legend for Housing Market Segmentation

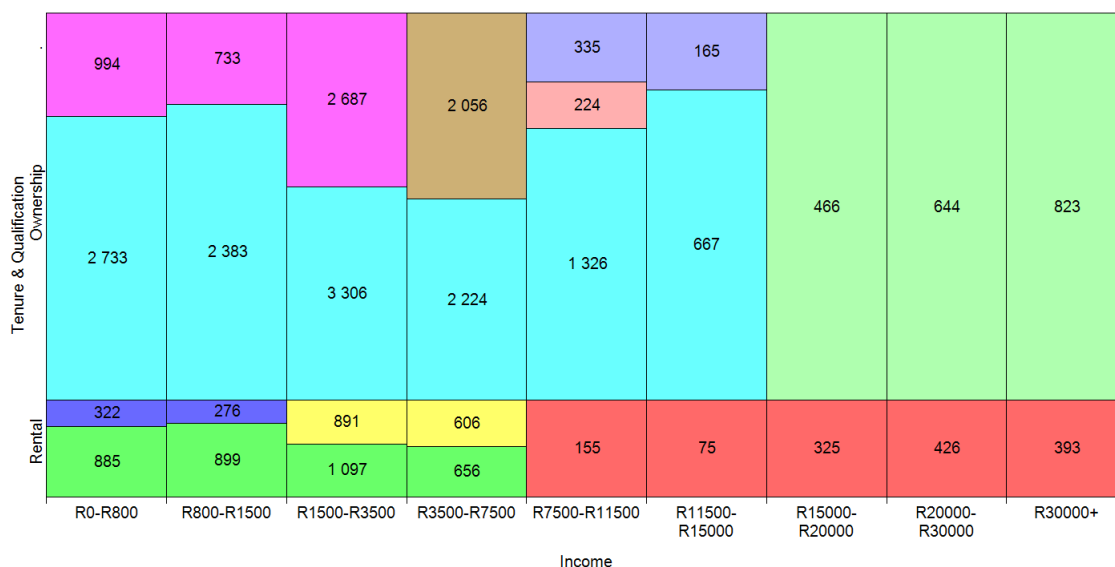


Figure 17: Housing Market Segmentation

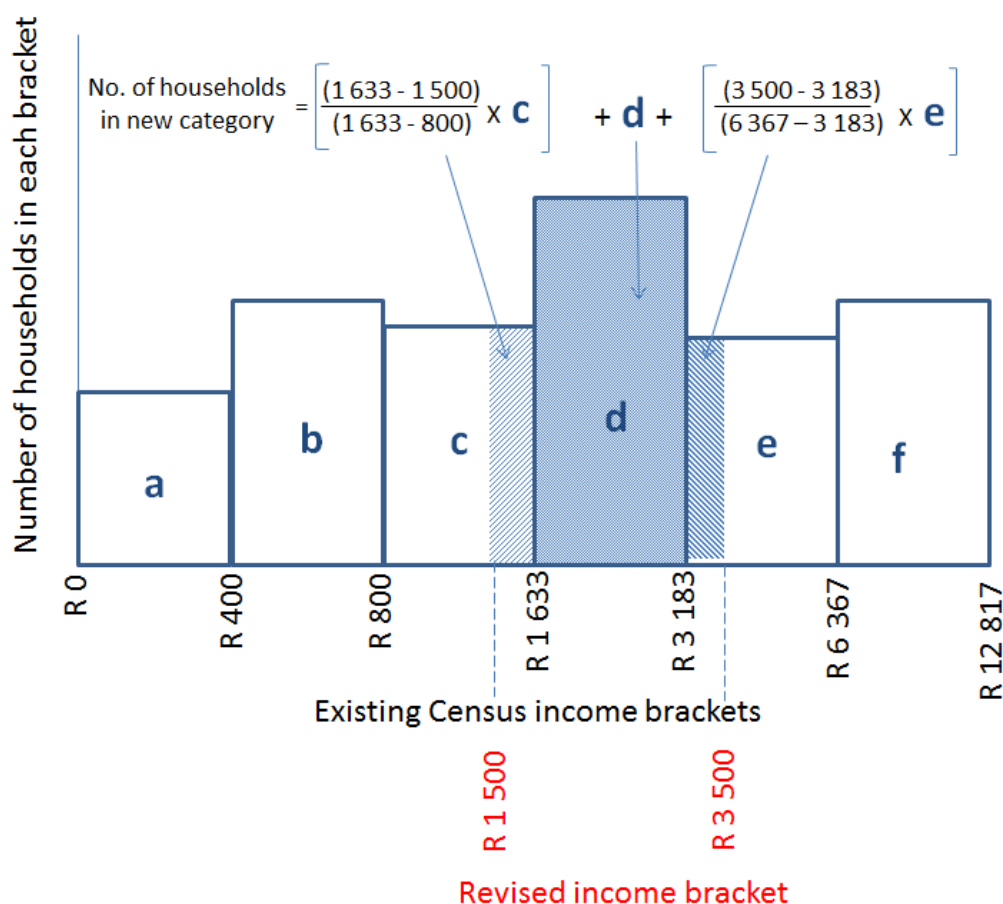
Sources: Census 2001; Western Cape Housing Subsidy System 2014; own calculations

The diagram calculates the size of each market in the municipality, but does not compare this against the number of inadequately housed households, which is substantially less than the number of potential subsidy qualifiers. It has not been possible to calculate how many of the inadequately housed households do not qualify for subsidy assistance. However, the total figure for non-qualifiers is relatively large, and may be of concern to the municipality given that these households are likely to remain in informal circumstances. The gap market in Theewaterskloof has been calculated to be 3 691 households, made up of 2 056 households in the supply and credit gap, and 224 households in the credit gap.

End notes

1. Income bracket adjustment

All representations of household data by income bracket have involved the manipulation of Census 2011 data to align with new monthly income brackets defined in the Housing Market Segments Report. The Census 2011 Annual Household Income was first converted into a monthly income figure. The number of households in the new monthly income bracket was calculated by adding the proportion of the new monthly income bracket that straddled the Census income monthly brackets, multiplied by the number of households in each of the Census monthly income brackets. Simple linear interpolation was used, which assumes that households are evenly distributed across income monthly brackets. The figure below illustrates the process used to calculate the number of households falling into the new monthly income bracket between R 1 500 and R 3 500 per month.



2. Overcrowding calculation

The methodology used to calculate overcrowding is based on the methodology used by the City of Cape Town for the modelling undertaken for the Integrated Human Settlements Framework. The point of departure was a definition of overcrowding given by the U.S Department of Housing and Urban Development: Office of Policy Development & Research (2007) Measuring Overcrowding in Housing (available online at http://www.huduser.org/publications/pdf/measuring_overcrowding_in_hsg.pdf) of more than 2.5 people per habitable room (i.e. excluding kitchens, bathrooms, store rooms, etc.). However, the South African Census does not distinguish between habitable and non-habitable rooms. Therefore the definition was modified to be more than 2 people per (total) room. This assumes that there are four habitable rooms for every non-habitable room, which is believed to produce a roughly equivalent outcome to that of the US Department of Housing and Urban Development definition.

To determine the number of households that are overcrowded, the following methodology was followed:

Step	Description
Step 1:	Census data for household size and number of rooms was cross-tabulated, producing a table indicating the number of households having 1 person in 1 room, 2 people in 1 room, 1 person in 2 rooms, etc., each of which represents a occupancy 'case'.
Step 2:	For each case, the number of overcrowded people was determined by taking the household size and subtracting the number of rooms multiplied by 2 (people per room - representing the theoretical maximum comfortable occupancy level), producing the number of overcrowded people per 'case'.
Step 3:	The number of overcrowded people was divided by 2 (people per room) to produce the number of additional rooms required per 'case'.
Step 4:	The number of additional rooms was divided by an assumed value of 2 for the number of rooms in a new house to produce the number of households requiring accommodation per 'case'. While the average number of rooms per formal dwelling in the Western Cape is higher than this (4.72), the lower figure is based on the size of new IRDP housing. The assumption therefore indicates the need for a new house (and therefore 1 overcrowded household) for every four people in an overcrowded dwelling.
Step 5:	The number of households requiring accommodation per 'case' was multiplied by the number of households in each case (see step 1) to produce the number of overcrowded households.

The following example illustrates the process:

Step	Description
Step 1:	There are 120 households living in the housing case: 10 people living in 2 rooms
Step 2:	Number of overcrowded people = $10 - (2 \times 2) = 6$
Step 3:	Number of additional rooms required = $6 \div 2 = 3$
Step 4:	Number of additional dwellings required = $3 \div 2 = 1.5$ - rounded up to 2.
Step 5:	Number of households overcrowded = $120 \times 2 = 240$.

3. Subsidy non-qualifiers

The subsidy conditions stipulate the following five essential criteria:

Criterion	Description
Criterion 1:	Must be a South African resident
Criterion 2:	Must be 18 years or older
Criterion 3:	Must not have previously benefited from a government housing subsidy
Criterion 4:	Must not have previously owned residential property
Criterion 5:	Must be married or cohabiting or with financial dependents
Criterion 6:	Must have a household income of R0-R3 500 per month for a full subsidy, or R3 500 - R 15 000 for a FLISP subsidy.

The following data sets were used as direct or proxy measures for the above criteria:

Criterion	Description
Criterion 1:	Census 2011
Criterion 2:	Census 2011
Criterion 3:	WC Housing Subsidy System
Criterion 4:	Census 2011

Criterion	Description
Criterion 5:	Census 2011
Criterion 6:	Census 2011 and WC Housing Demand Database

The following process was followed:

Step	Description
Step 1:	The number of households in each qualifying income bracket was extracted from Census 2011 (Criterion 6) and cross-tabulated against age (Criterion 2) and tenure status (Criteria 3 and 4).
Step 2:	The number of single person households (Criterion 5) per income bracket was extracted from Census 2011.
Step 3:	The number of foreign individuals (Criterion 1) was extracted from Census 2011 and divided by an assumed household size of 2 to calculate the number of foreign-headed households. These households were distributed proportionately between the revised income brackets according to the split of the total municipal population.
Step 4:	The number of non-qualifying households calculated in Steps 1, 2 and 3 were added together to obtain the total number of non-qualifying households in each income group.

Given the lack of a full data set on many of the criteria, and the inability to cross-tabulate across the various data sets, the following assumptions had to be made:

Step 1 assumes that a) all people who have previously owned property still owned their properties in 2011 and b) that all those that have received a subsidy still own their properties. Both of these simplifying assumptions will tend to underestimate the number of non-qualifiers. In addition, it ignores the in-migration of people who have received a subsidy in another province, thereby assuming that this does not take place, or nets out with subsidy beneficiaries leaving the province. As there is positive net in-migration to the province, this assumption will tend to underestimate the number of non-qualifiers.

Step 2 assumes that any household greater than 1 person either comprises a spouse, co-habiting partner or financial dependent. As the definition of 'household' in Census 2011 could include 2 financially independent and unrelated adults, this assumption will tend to overestimate the number of subsidy qualifiers, and thus underestimate the number of non-qualifiers.

Step 3 assumes that foreign residents are distributed across income groups in the same proportions as the total population, and on average form households of 2 people. As there is no data to support these assumptions, the impact of this assumption is unknown.

All of the assumptions made in steps 1 and 2 underestimate the number of non-qualifiers. However, there is an element of double counting where single person households own their dwellings, and therefore these two dynamics may tend to cancel on another out.

4. Tenure preference

Tenure propensity is a combination of preference and circumstance. In many cases, households may prefer to own a property, but may not be able to afford to do so. In other cases, people may be able to afford a house, but prefer to rent (for various reasons). Two sources of data were used to determine tenure propensity. Firstly, the tenure preference of households is indicated in the Western Cape Human Settlements Demand Database. Understandably, this data illustrates a very clear preference for home ownership amongst all income brackets. Secondly, the existing tenure arrangements as measured by Census 2011 provide an indication of tenure propensity forced through circumstance, as well as preference to rent at higher income levels. However, many of these households would opt to own rather than rent if they had a choice. Analysis of the Census data undertaken for the Housing Market Segments Report concluded that there appears to be a minimum of 20% of household at all income brackets that would prefer to rent. Given these data sources and their inherent weaknesses, the following methodology was followed to determine the split of households likely to own versus rent in each income bracket:

1. The average value was calculated between the current percentage of households that rent (or live rent free) from Census 2011 and the percentage of households that stated a preference to rent in the WC Housing Demand Database.
2. If this value for rental propensity was greater than the observed minimum of 20% of households in any income bracket, then the average value was used, otherwise the 20% value was used.

5. Housing Market Segmentation

A housing market segment report produced for this study which, based on a desktop literature review and stakeholder engagements, constructed a framework for understanding housing markets in the Western Cape province. The key housing demand dimensions were identified to be household income (monthly in this study), tenure status (ownership versus rental) and state housing finance qualification criteria. Based on these key dimensions, the housing market segments were delineated according to the categories in **Error! Reference source not found..**

Tenure status and related housing programmes	Monthly household income (Rands)						
	0 - 800	801 - 1 500	1 501 - 3 500	3 501 - 7 500	7 501 - 11 500	11 501 – 15 000	>15 001
Owned							
State-subsidised housing	x	x	x				
Supply & credit gap				x			
Finance Linked Individual Subsidy Programme (FLISP)				x	x	x	
Credit gap					x		
Non-qualifiers (owners)	x	x	x	x	x		
Bonded							x
Rental							
Community Residential Units (CRU)		x	x				
Social Housing			x	x			
Non-qualifiers (rental)	x	x	x	x			
Normal rental					x	x	x

Table 21: Housing market segmentation

Source: Own assessment based on literature and stakeholder engagements

The nature of these categories is explained in **Error! Reference source not found..**

Tenure status and related housing programmes	
Owned	
State-subsidised housing	State housing finance mechanisms for households earning below R3 500/month.
Supply & credit gap	The Housing Market Segments Report identified a supply and credit gap in the R3 500-R 7500 income bracket. This means the market is unwilling or unable to supply a product that could be afforded by households in this bracket, even if they were able to access credit and the FLISP subsidy.
Finance Linked Individual Subsidy Programme (FLISP)	For households earning between R3 500 and R15 000/month, the FLISP programme is available. However, not all households within the FLISP income band are able to access it due to the lending limit (household income of R11 500). Such households then represent part of the 'gap' market whose needs are partially being met through Financial Sector Charter loans.
Credit gap	The housing market segment report identified a credit gap in the R7 500-R11 500 income bracket indicating that 60% of households in this bracket would be unable to access the credit required as a condition of the FLISP subsidy.
Non-qualifiers (owners)	While there are a number of programmes which households can access to meet their demand, there are also notable limitations to their capacity to access such opportunities. If a household does not meet the qualification criteria of state-funding or those of lending institutions, they fall into a category of 'non-qualifiers'. It is inferred, on the basis of the literature reviewed, that many of these non-qualifiers are reverting to residence in informal dwellings (such as shacks or traditional housing) to meet their demand. Some such non-qualifiers include, but are not limited to, non-South African citizens or parties who may have previously benefited from state housing programmes.
Bonded	Beyond an income of R15 000 households are expected to revert to the bonded market.

Rental	
Community Residential Units (CRU)	State housing programmes for households earning between R800 and R3 500/month.
Social Housing	State housing programmes for households earning between R1 500-R7 500/month.
Non-qualifiers (rental)	While there are a number of programmes which households can access to meet their demand, there are also notable limitations to their capacity to access such opportunities. If a household does not meet the qualification criteria of state-funding or those of rental institutions or landlords, they fall into a category of 'non-qualifiers'. It is inferred, on the basis of the literature reviewed, that many of these non-qualifiers are reverting to residence in informal dwellings (such as shacks or traditional housing) to meet their demand. Some such non-qualifiers include, but are not limited to, non-South African citizens or parties who may have previously benefited from state housing programmes.
Normal rental	It is still not fully clear what the income band boundary between the non-qualifier and normal rental markets are but it is assumed these overlap partially at an income of R7 500/month.

Table 22: Housing market segmentation descriptions

Source: Own assessment based on literature and stakeholder engagements