



## **Municipal Human Settlement Demand Profile**

**Witzenberg 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
<b>Adequate housing:</b>	All Census 2011 dwelling types excluding informal dwellings and informal backyard shacks. Includes traditional dwellings and formal backyard structures.
<b>Dwelling type:</b>	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).
<b>Housing status:</b>	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.
<b>Inadequate housing:</b>	Census 2011 figures for informal dwellings, informal backyard shacks and a calculated figure for overcrowding.
<b>Income:</b>	Household monthly income in 2011, modified from Census 2011 as described in end note 1.
<b>Informal dwelling:</b>	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."
<b>Informal backyard shack:</b>	Census 2011 dwelling type: "Informal dwelling (shack; in backyard)".

Term	Definition
<b>Informal settlement:</b>	All households (in any dwelling type) in Census 2011 settlement category: "Informal residential area".
<b>Overcrowding:</b>	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.
<b>Rural:</b>	Census 2011 settlement categories: "Farms", Small holdings" and "Traditional residential".
<b>Urban:</b>	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.

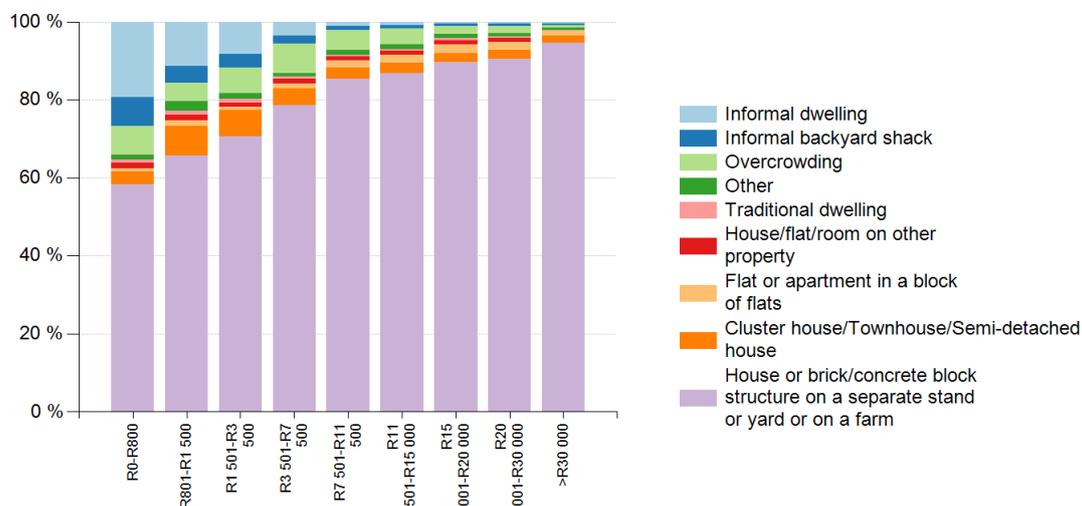


Figure 1: Proportion of households in each dwelling type by monthly household income bracket

	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
<b>Informal dwelling</b>	709	507	742	214	20	8	4	5	6	2 215
<b>Informal backyard shack</b>	268	192	326	131	18	8	4	6	5	958
<b>Overcrowding</b>	273	212	589	458	99	39	15	18	8	1 710
<b>Other</b>	39	105	129	53	21	10	7	9	6	379
<b>Traditional dwelling</b>	34	46	87	36	9	5	4	5	1	226
<b>House/flat/room on other property</b>	52	70	96	82	19	10	9	10	3	349
<b>Flat or apartment in a block of flats</b>	29	61	69	65	35	19	16	21	15	328
<b>Cluster house/Townhouse/Semi-detached house</b>	120	341	630	273	55	25	16	22	25	1 508
<b>House or brick/concrete block structure on a separate stand or yard or on a farm</b>	2 134	2 940	6 383	4 805	1 599	815	662	918	1 201	21 457
<b>Total</b>	3 658	4 474	9 049	6 115	1 875	939	737	1 014	1 270	29 130

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

(Source: Census 2011)

Witzenberg 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 59% of the population 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, but the proportion of overcrowding increases to a maximum in the R3 501-R7 500 income bracket.

## 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 Witzenberg Local Municipality was recorded as **6 124**.

**Present accommodation**

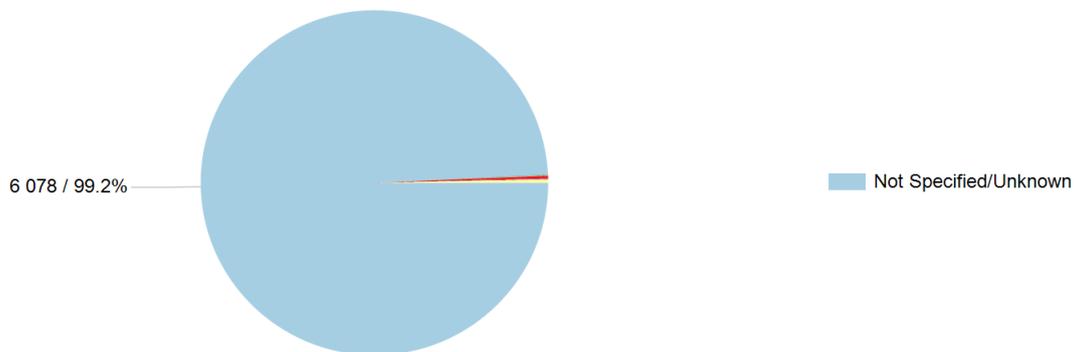


Figure 2: Number and proportion of households on the Housing Demand Database presently in each accommodation type (

Source: Western Cape Housing Demand Database

**Choice of assistance**

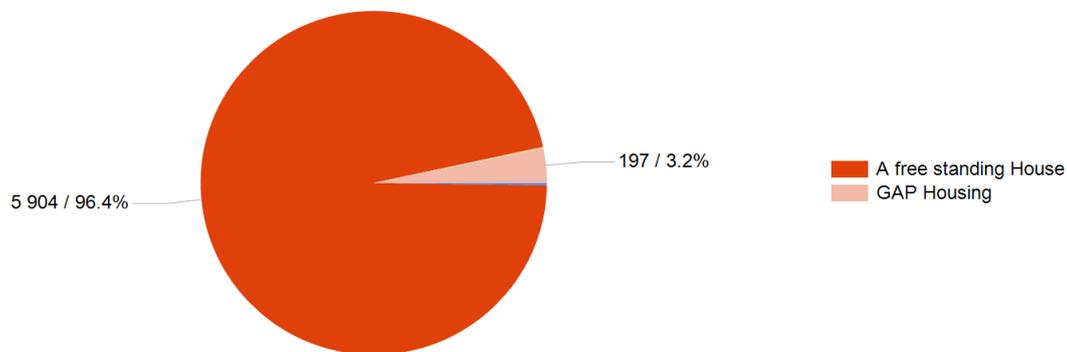


Figure 3: Number and proportion of households on the Housing Demand each assistance option

Source: Western Cape Housing Demand Database

### Choice of tenure

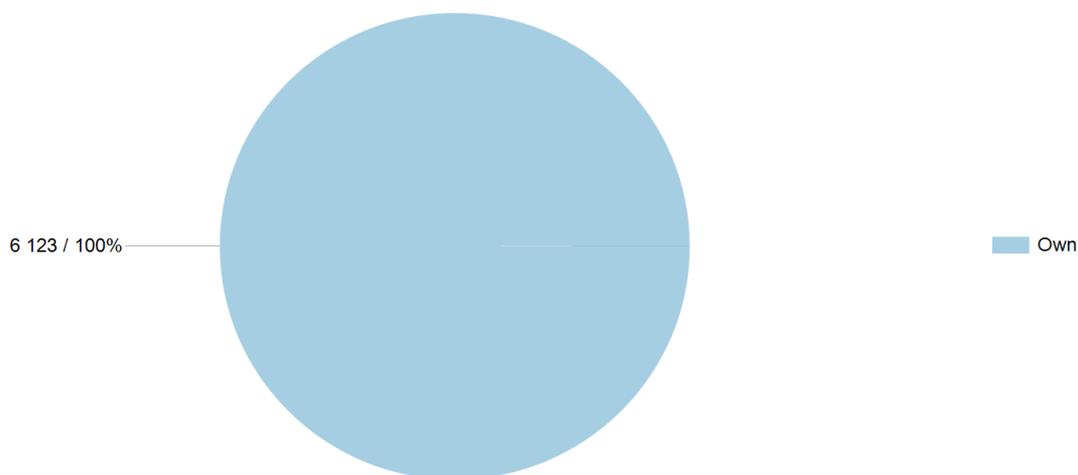


Figure 4: Number and proportion of households on the Housing Demand selecting each tenure option

Source: Western Cape Housing Demand Database

Almost all individuals registered on the Western Cape Housing Demand Database did not specify their present accommodation. Of those that did, most live in a formal outside rooms or in wood and iron structures. About 96% of households would prefer a free-standing subsidised house, with most of the remainder seeking GAP Housing (3.2%). Only one household indicated a preference for rental assistance over ownership.

### 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 **4 883**.

### Housing status by income

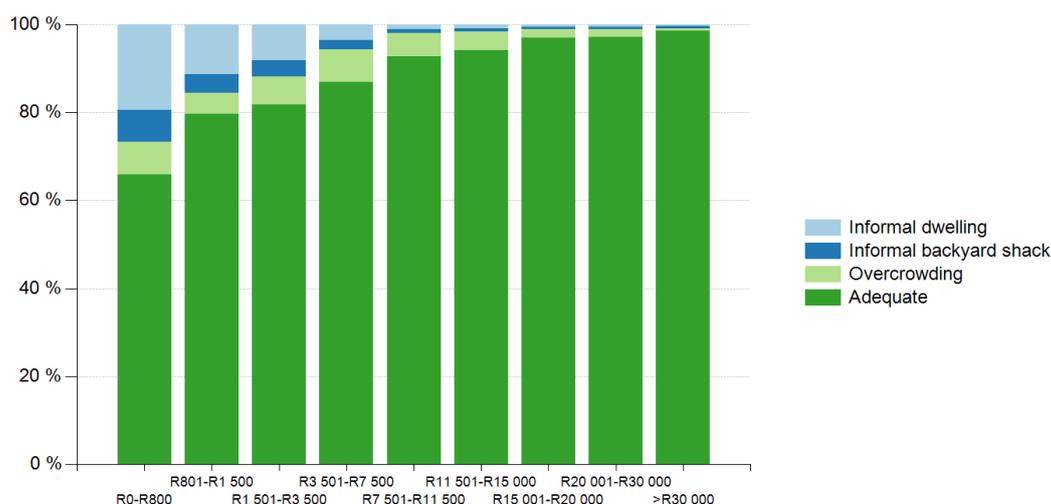


Figure 5: Proportion of households in each housing state by monthly household income bracket

	R0-R800	R801-R1500	R1501-R3500	R3501-R7500	R7501-R11500	R11501-R15000	R15001-R20000	R20001-R30000	>R30000	Total
<b>Informal dwelling</b>	709	507	742	214	20	8	4	5	6	2 215
<b>Informal backyard shack</b>	268	192	326	131	18	8	4	6	5	958
<b>Overcrowding</b>	273	212	589	457	99	39	15	18	8	1 710
<b>Adequate</b>	2 408	3 562	7 393	5 313	1 738	884	714	985	1 251	24 248
<b>Total</b>	3 658	4 473	9 050	6 115	1 875	939	737	1 014	1 270	29 131

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 **4 883**, which represents **17 %** of the total.

The proportion households housed in informal dwellings, informal backyard shacks and overcrowding decreases with increasing income. Inadequate housing is comprised mostly informal dwellings in lower income groups but this proportion decreases with increasing income. The remainder of inadequate housing is evenly distributed between informal

backyard shacks and overcrowding but with a bias towards overcrowding as income increase. The absolute numbers of inadequately housed households peaks in the R1501-R3 500 income category and drops off rapidly above R7 500, with only 263 higher income households inadequately housed, mainly 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).

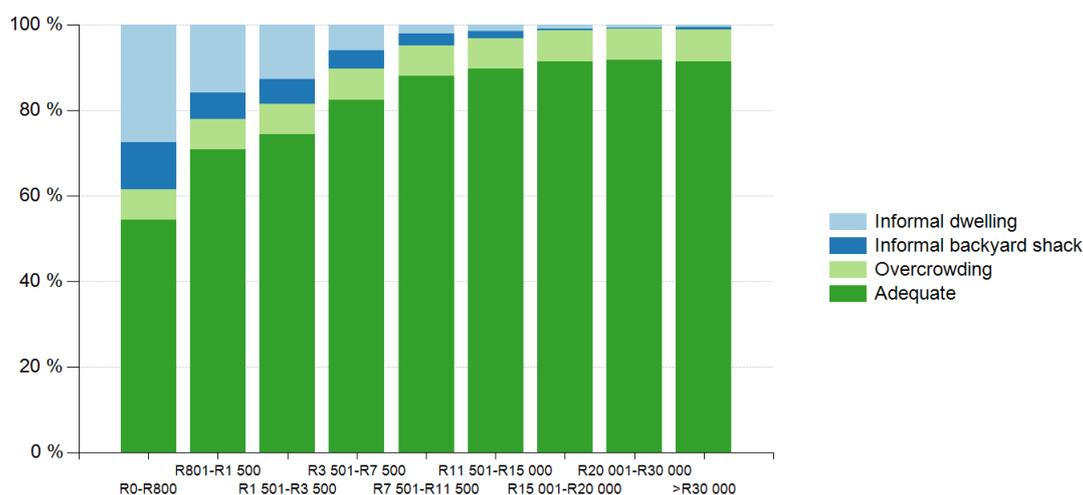


Figure 6: Proportion of household heads below 40 years in each housing state by monthly household income bracket

	R0-R800	R801-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
<b>Informal dwelling</b>	507	382	518	123	11	4	2	2	2	1 551
<b>Informal backyard shack</b>	201	145	237	88	16	5	1	1	2	696
<b>Overcrowding</b>	133	173	296	148	41	21	18	24	26	880
<b>Adequate</b>	1 004	1 700	3 049	1 691	503	263	224	300	324	9 058
<b>Total</b>	1 845	2 400	4 100	2 050	571	293	245	327	354	12 185

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

Source: Census 2011

Human Settlement Demand Profile – Witzenberg Local Municipality 2015

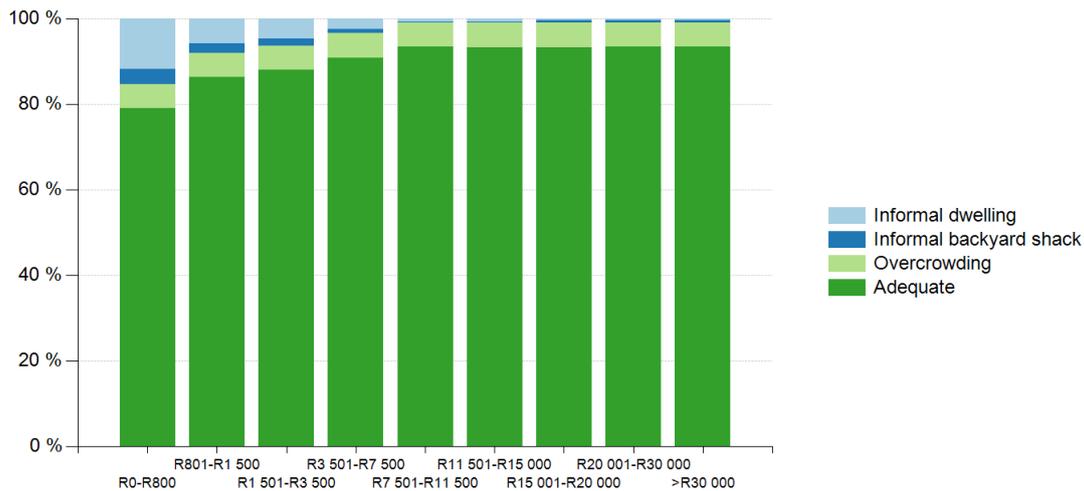


Figure 7: Proportion of household heads above 40 years in each housing state by monthly household income bracket

	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
<b>Informal dwelling</b>	210	127	224	94	9	4	2	2	4	676
<b>Informal backyard shack</b>	64	48	85	40	2	2	3	4	4	252
<b>Overcrowding</b>	102	124	280	225	75	38	30	41	56	971
<b>Adequate</b>	1 419	1 889	4 360	3 624	1 236	620	487	681	922	15 238
<b>Total</b>	1 795	2 188	4 949	3 983	1 322	664	522	728	986	17 137

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

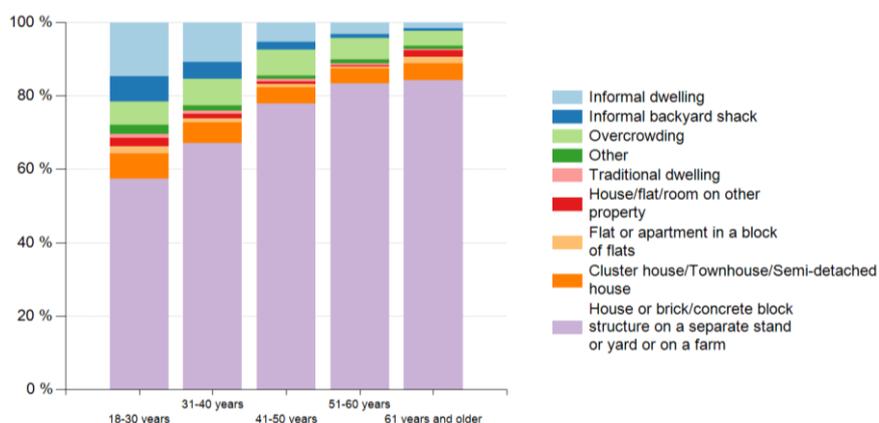


Figure 8: Proportion of households in each dwelling type by age bracket of household head

Source: Census 2011

There are proportionately more inadequately housed household heads that are below 40 years of age than above 40 years of age. This is related to the differences in income profile, with younger household heads, having generally lower incomes. The distribution of inadequately housed households between overcrowding, informal settlements and informal backyard shacks are similar for both age categories, in that inadequate housing is mostly comprised of informal dwellings in lower income groups and that this drops rapidly with rising income and overcrowding become the dominant form of inadequate housing as income increase, particularly above monthly incomes of R3 500. 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. With household heads below 40 years of age 26% of households are inadequately housed, while above 40 only 11% are inadequately housed.

### 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.

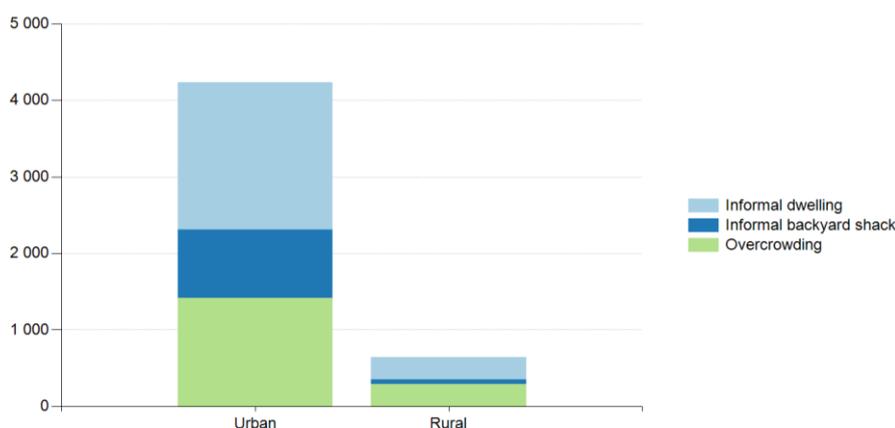


Figure 9: Number of inadequately housed households by housing status and settlement type

	Urban	Rural	Total
<b>Informal dwelling</b>	1 929	287	2 216
<b>Informal backyard shack</b>	894	64	958
<b>Overcrowding</b>	1 414	289	1 703
<b>Total</b>	4 237	640	4 877

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 concentrated in the urban areas of Ceres and Wolseley, with an even distribution between overcrowding and informal dwellings. The small proportion of rural households that is inadequately housed is due to overcrowding and informal dwellings

## 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
<b>Other</b>	63	521	1 858	121	2 563
<b>Occupied rent-free</b>	205	959	7 795	381	9 340
<b>Rented</b>	587	236	5 732	623	7 178
<b>Owned but not yet paid off</b>	7	107	2 342	61	2 517
<b>Owned and fully paid off</b>	95	391	6 518	551	7 555
<b>Total</b>	957	2 214	24 245	1 737	29 153

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**

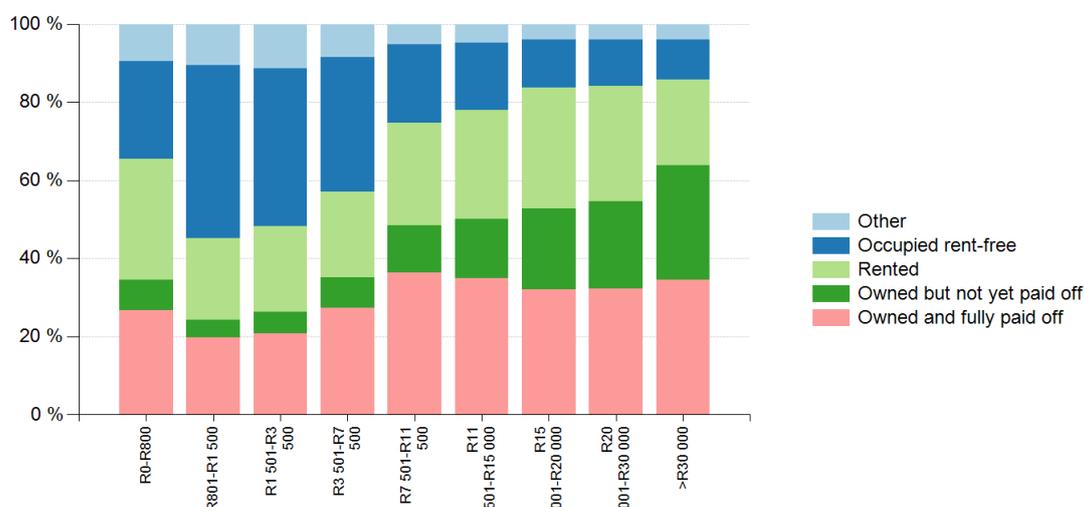


Figure 10: Proportion of households in each tenure category by monthly household income bracket

	R0-R800	R801-R1500	R1501-R3500	R3501-R7500	R7501-R11500	R11501-R15000	R15001-R20000	R20001-R30000	>R30000	Total
<b>Other</b>	319	444	954	475	91	43	29	39	50	2 444
<b>Occupied rent-free</b>	850	1 887	3 425	1 951	356	156	88	119	130	8 962
<b>Rented</b>	1 050	892	1 856	1 247	466	251	224	295	275	6 556
<b>Owned but not yet paid off</b>	262	198	470	431	216	137	150	222	371	2 457
<b>Owned and fully paid off</b>	909	840	1 755	1 553	646	314	232	322	435	7 006
<b>Total</b>	3 390	4 261	8 460	5 657	1 775	901	723	997	1 261	27 425

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

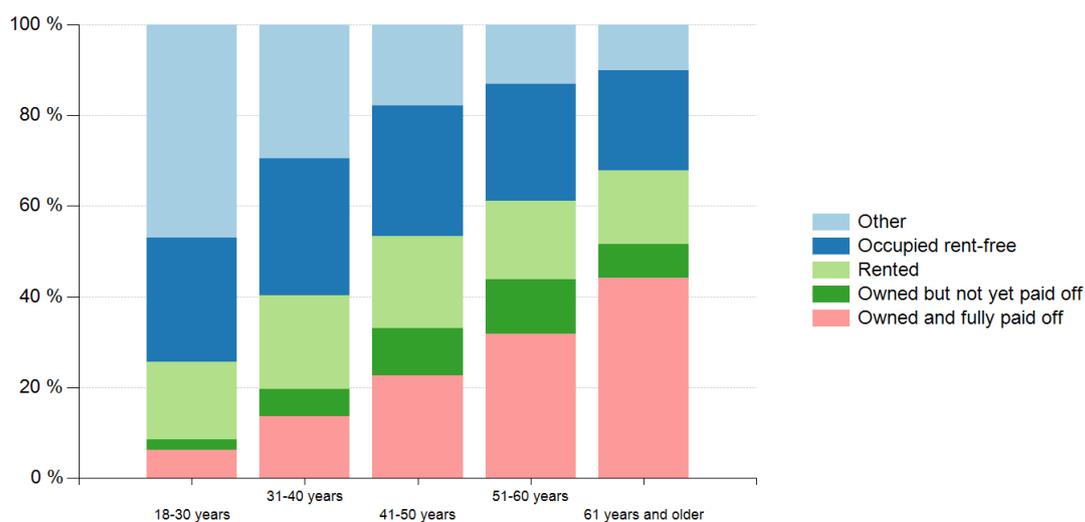


Figure 11: Proportion of households in each tenure category by age bracket of household head

	18-30 years	31-40 years	41-50 years	51-60 years	61 years and older	Total
<b>Other</b>	4 049	2 673	1 406	699	417	9 244
<b>Occupied rent-free</b>	2 365	2 728	2 285	1 366	906	9 650
<b>Rented</b>	1 474	1 860	1 607	921	665	6 527
<b>Owned but not yet paid off</b>	208	546	819	635	308	2 516
<b>Owned and fully paid off</b>	531	1 232	1 786	1 686	1 813	7 048
<b>Total</b>	8 627	9 039	7 903	5 307	4 109	34 985

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

Source: Census 2011

The tenure status figures indicate that a significant proportion of households in lower income groups occupy rent free accommodation, peaking in R801 –R1 500 income category and drops off sharply above an income level of R7 500. From this income level upwards, the proportion of households that own fully paid off houses and own not yet fully paid off houses begins to increase. The municipality has a high rate of rental with 57% percent of household either renting or occupying their accommodation rent free. The comparison of tenure status by age of household head shows a general trend of younger household heads occupying

more rent free and other accommodation and older household heads owning fully-paid off properties. The proportion of rented properties is fairly stable across age groups. The gross figures show that rent free accommodation in the 31-40 age group is the tenure status with the most households by age group.

## 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
<b>Informal dwelling</b>	595	590	283	95	27	1 590
<b>Informal backyard shack</b>	286	272	107	33	10	708
<b>Overcrowding</b>	302	451	404	206	38	1 401
<b>Adequate</b>	3 549	4 910	4 994	3 184	858	17 495
<b>Total</b>	4 732	6 223	5 788	3 518	933	21 194

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
<b>Informal dwelling</b>	214	193	103	67	44	621
<b>Informal backyard shack</b>	88	71	41	29	19	248
<b>Overcrowding</b>	48	77	93	95	134	447
<b>Adequate</b>	402	724	1 101	1 420	3 044	6 691
<b>Total</b>	752	1 065	1 338	1 611	3 241	8 007

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 suggests that younger unemployed household head are more likely to occupy informal dwellings and backyard shacks, 12% of unemployed household head aged 18-30 live in informal backyard shacks, while 28% live in informal dwellings. For employed household heads in this age group these proportions are 6% and 13% respectively. A similar trend continues in the 31-40 age group but evens out for household head above the age of 40. 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 **9 299** households earning below R3 500 per month and **4 436** households earning between R3 500 and R15 000 per month that do not qualify for subsidies. This amounts to 58 % of households earning less than R3 500 per month and 53 % 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**

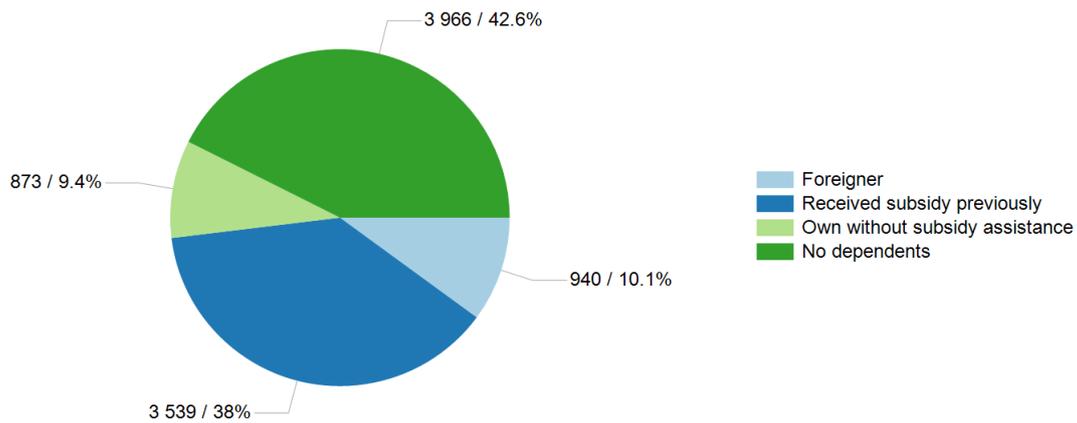


Figure 12: Number and proportion of households (<R3 500/month) not qualifying for housing subsidies by reason

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**

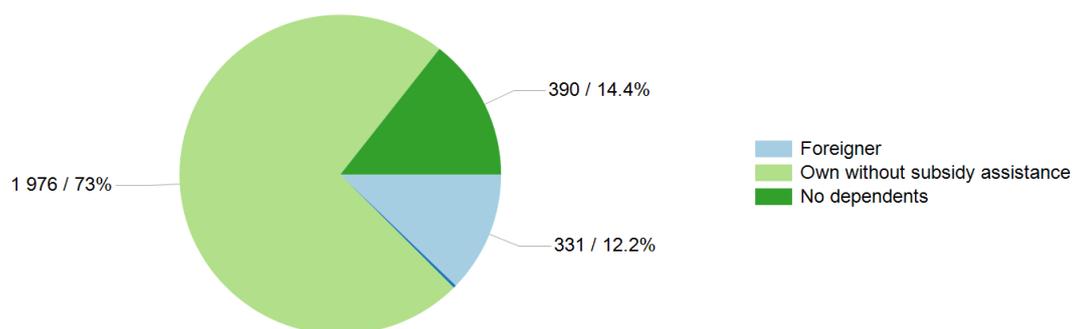


Figure 13: Number and proportion of households (<R3 500-R15 000/month) not qualifying for housing subsidies by reason

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
<b>Total number of informal settlements</b>	Western Cape Informal Settlement Database	2011	8
	Western Cape Informal Settlement Database	2014	7
<b>Total number of informal settlement dwellings</b>	Western Cape Informal Settlement Database	2011	1 660
	Western Cape Informal Settlement Database	2014	1 781
<b>Total number of households in informal residential areas</b>	Census	2011	2 004
<b>Total number of households in informal dwellings</b>	Census	2011	2 215

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**

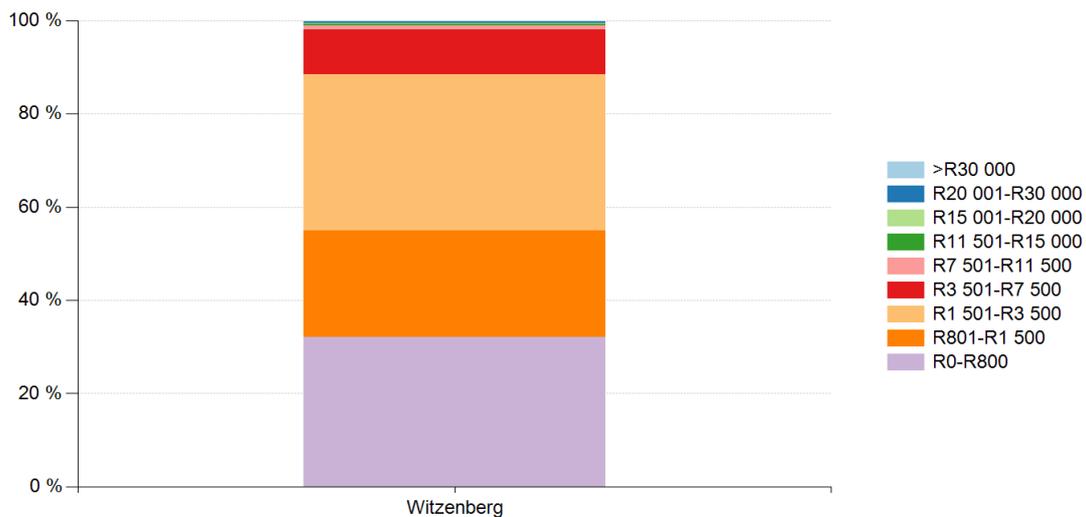


Figure 14: Proportion of households in informal dwellings in each monthly household income bracket

Source: Census 2011

**Age profile of household heads in informal dwellings**

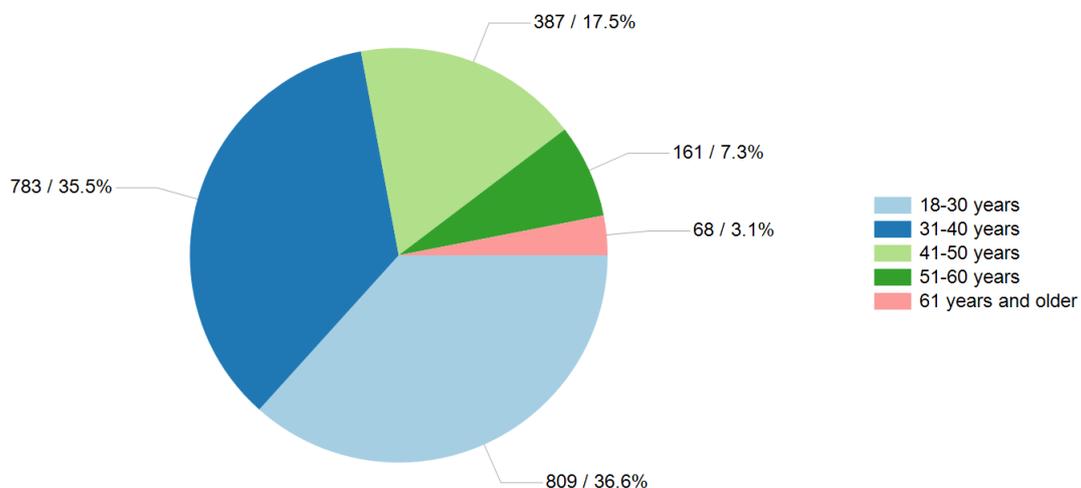


Figure 15: Number and proportion of household heads in informal settlements in each age bracket

Source: Census 2011

### Employment status of household heads in informal dwellings

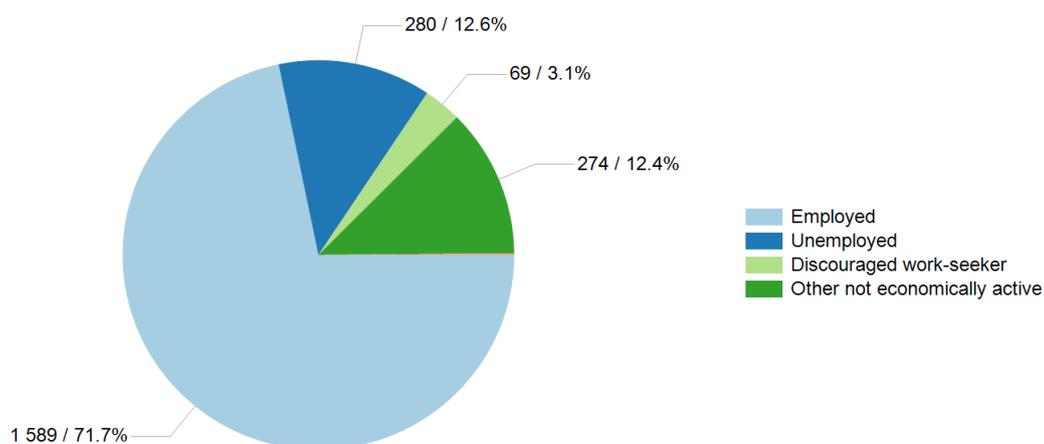


Figure 16: Number and proportion of informal settlement household heads by employment status

Source: Census 2011

Approximately 98% of households in informal dwellings in Witzenberg earn less than R7 500 per month. The majority of household heads (72%) are aged between 18 and 40 years, while the 41 to 50 age group is also significant with 18%. Only 3% are aged above 60 years. Over 70% of informal dwelling household heads are employed, which is a very high proportion.

## 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
<b>Informal dwelling</b>	224	684	468	363	2 198
<b>Informal backyard shack</b>	20	126	189	47	948
<b>Adequate</b>	167	1 009	1 341	5 504	22 472
<b>Total</b>	411	1 819	1 998	5 914	25 618

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
<b>Informal dwelling</b>	10 %	31 %	21 %	16 %	99 %
<b>Informal backyard shack</b>	2 %	13 %	20 %	5 %	99 %
<b>Adequate</b>	1 %	4 %	6 %	23 %	93 %

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

Source: Census 2011

Witzenberg does fairly well in the provision of networked services. Water provision in Witzenberg is good with the highest water backlog being 10% in informal dwellings. The highest backlogs in the municipality are electricity and sanitation provision to informal dwellings at 31% and 21% un-serviced respectively. Solid waste removal is low for the municipality, although the prevalence of farms in the area may be a contributing factor to this. 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
<b>Informal dwelling</b>	20	26	28	6	0	0	0	0	0	80
<b>Informal backyard shack</b>	2	0	1	0	0	0	0	0	0	3
<b>Adequate</b>	3	8	16	2	0	0	0	0	0	29
<b>Total</b>	25	34	45	8	0	0	0	0	0	112

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

Source: Census 2011

A total of 112 households in Witzenberg have no access to any of the three services. Of these, 80 are informal dwelling, fairly evenly distributed in the earning categories between R0 and R3 500. These are evenly split between the adequately housed and informal dwellings. Only 3 informal backyard shacks receive no services.

## 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.

	Witzenberg	Percentage of households in each housing status category without motor car
<b>Informal dwelling</b>	2 064	93.2%
<b>Informal backyard shack</b>	884	92.3%
<b>Adequate</b>	16 686	68.8%
<b>Total</b>	19 634	71.6%

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

Source: Census 2011

The table shows there are 19 634 households (72%) 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
<b>Public Clinics</b>	12 238	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
<b>Secondary School</b>	15 297	12 500	Worse
<b>Primary School</b>	2 400	7 000	Better
<b>Early Childhood Development and Creche</b>	1 155	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	24 476	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	17 483	45 000	Better
Thusong Centres	0	122 379	Worse
Cemeteries	13 598	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.

Witzenberg appears adequately served by social infrastructure in general. However, it appears to have a shortage of secondary schooling available.

Note that this is 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	2.9 %	4.1 %
Annual average household growth rate (2001-2011)	Census	3 %	3.1 %
Annual average population growth rate (2001-	Census	2.7 %	2.6 %

Indicator	Source	Value	WC Average
<b>2011)</b>			
<b>New informal settlements (2011-2014)</b>	WC Informal Settlement Database	-1	1
<b>Percentage change in household size (2001-2011)</b>	Census	-2.9 %	-0.5 %

Table 20: Selected trends relevant to human settlements

## Analysis and discussion

### General discussion

Witzenberg has a significant human settlements challenge as 17% of its households are inadequately housed. However 78% of these have a household income of less than R3 500, so it is likely the majority of the housing burden will need to be borne by the state. Witzenberg has experienced below average economic growth for the province, at 2.9% since 2001, but roughly average household growth for the province between 2001 and 2011 of 3%. This combined with a fairly small, but bigger than average, 2.9% decrease in average household size suggests little is likely to change in the housing demand profile due to economic or demographic changes. There has been a decrease in the number of informal settlements, with 1 fewer informal settlements in the municipality since 2011.

The number of inadequately housed households was calculated to be 4 883, while the Western Cape Housing Demand Database records 6 124. 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 informal dwellings account for most of the inadequate housing in the municipality and that this mainly affects household heads under 40 years old. The vast majority of household heads in informal dwellings are employed but still living in inadequate housing, showing that employment does not alleviate the housing burden in Witzenberg. Free rental is also prevalent in the municipality amongst under 40s.

The municipality is fairly well serviced but could improve in providing electricity and sanitation to informal dwellings. In terms of social infrastructure the municipality also has a shortage of secondary schools.

### 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.

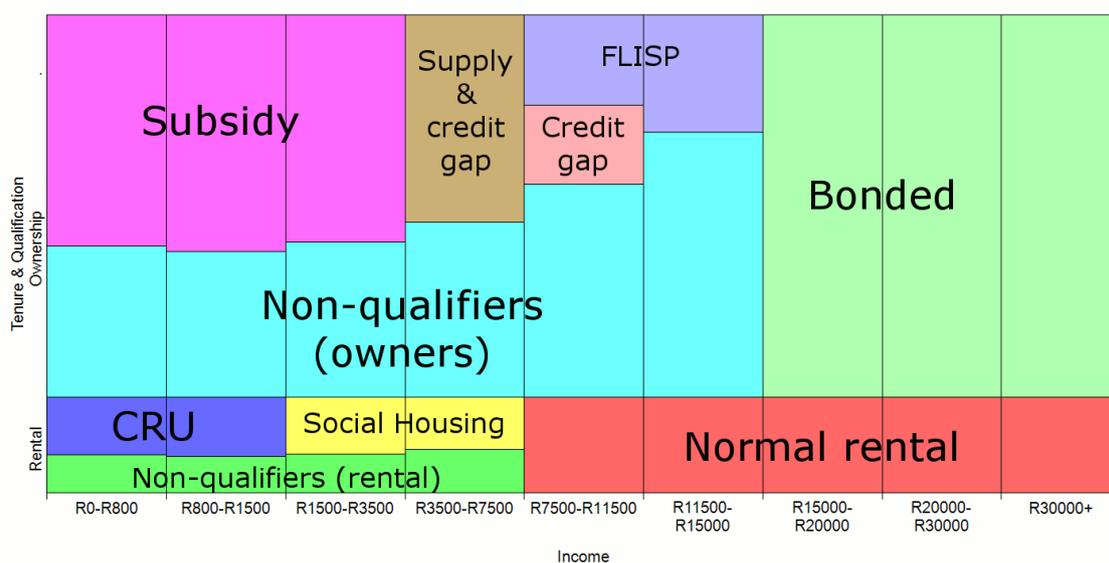


Figure 17: Legend for Housing Market Segmentation

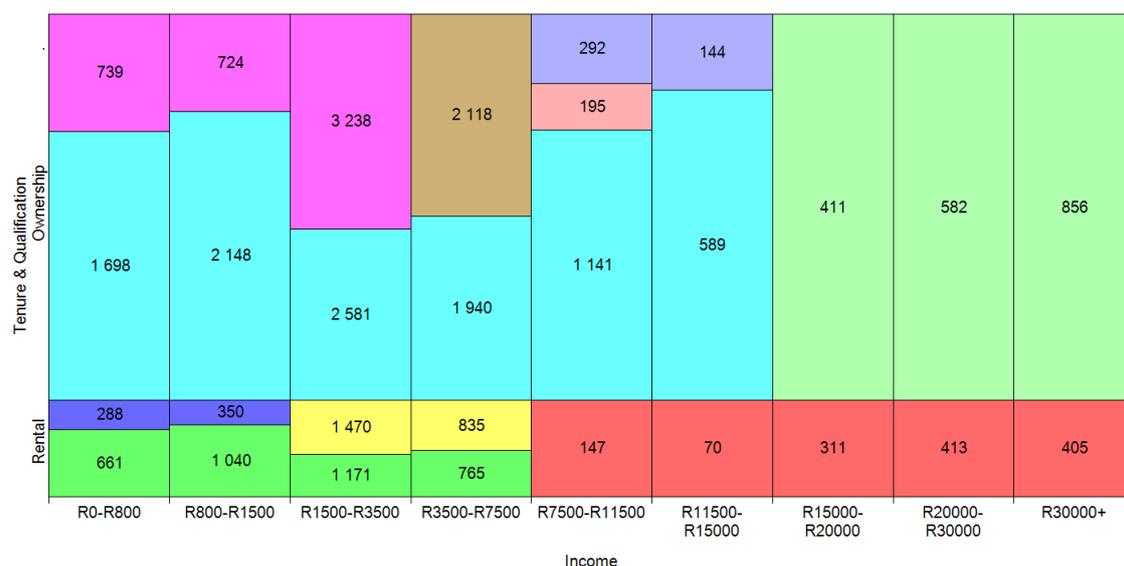


Figure 18: Housing Market Segmentation

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

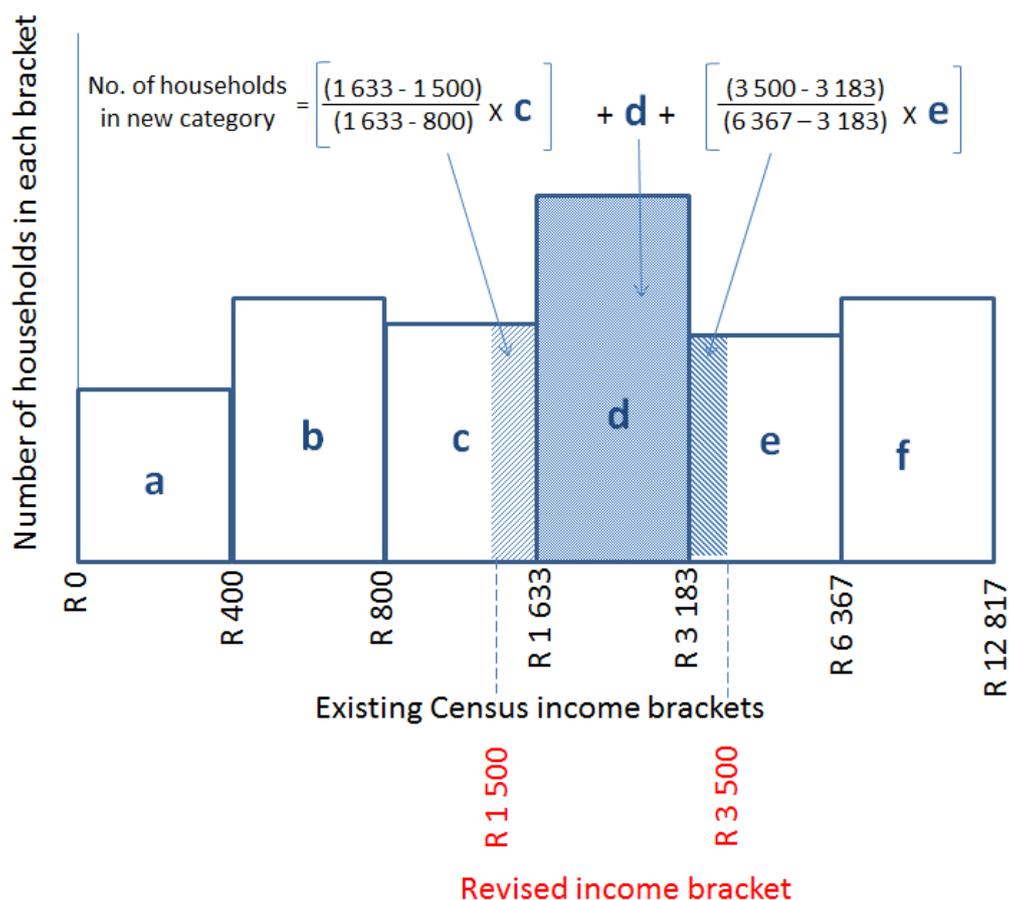
The diagram calculates the size of each market in the municipality, but does not compare this against the number of inadequately housed households, which is substantially less than the number of potential subsidy qualifiers. It has not been possible to calculate how many of the inadequately housed households do not qualify for subsidy assistance. However, the total figure for non-qualifiers is significant in proportion to the size of the municipality, and may be

of concern to the municipality given that these households are likely to remain in informal circumstances. The gap market in Witzenberg has been calculated to be 2 313 households, made up of 2 118 households in the supply and credit gap, and 195 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 R1 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](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
<b>Step 1:</b>	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'.
<b>Step 2:</b>	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'.
<b>Step 3:</b>	The number of overcrowded people was divided by 2 (people per room) to produce the number of additional rooms required per 'case'.
<b>Step 4:</b>	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.
<b>Step 5:</b>	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
<b>Step 1:</b>	There are 120 households living in the housing case: 10 people living in 2 rooms
<b>Step 2:</b>	Number of overcrowded people = $10 - (2 \times 2) = 6$

Step	Description
<b>Step 3:</b>	Number of additional rooms required = $6 \div 2 = 3$
<b>Step 4:</b>	Number of additional dwellings required = $3 \div 2 = 1.5$ - rounded up to 2.
<b>Step 5:</b>	Number of households overcrowded = $120 \times 2 = 240$ .

### 3. Subsidy non-qualifiers

The subsidy conditions stipulate the following five essential criteria:

Criterion	Description
<b>Criterion 1:</b>	Must be a South African resident
<b>Criterion 2:</b>	Must be 18 years or older
<b>Criterion 3:</b>	Must not have previously benefited from a government housing subsidy
<b>Criterion 4:</b>	Must not have previously owned residential property
<b>Criterion 5:</b>	Must be married or cohabiting or with financial dependents
<b>Criterion 6:</b>	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
<b>Criterion 1:</b>	Census 2011
<b>Criterion 2:</b>	Census 2011
<b>Criterion 3:</b>	WC Housing Subsidy System
<b>Criterion 4:</b>	Census 2011
<b>Criterion 5:</b>	Census 2011
<b>Criterion 6:</b>	Census 2011 and WC Housing Demand Database

The following process was followed:

Step	Description
<b>Step 1:</b>	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).
<b>Step 2:</b>	The number of single person households (Criterion 5) per income bracket was extracted from Census 2011.
<b>Step 3:</b>	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.
<b>Step 4:</b>	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, cohabiting 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..**

<b>Tenure status and related housing programmes</b>	
<b>Owned</b>	
<b>State-subsidised housing</b>	State housing finance mechanisms for households earning below R3 500/month.
<b>Supply &amp; credit gap</b>	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.
<b>Finance Linked Individual Subsidy Programme (FLISP)</b>	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.
<b>Credit gap</b>	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.
<b>Non-qualifiers (owners)</b>	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.
<b>Bonded</b>	Beyond an income of R15 000 households are expected to revert to the bonded market.
<b>Rental</b>	
<b>Community Residential Units (CRU)</b>	State housing programmes for households earning between R800 and R3 500/month.
<b>Social Housing</b>	State housing programmes for households earning between R1 500-R7 500/month.
<b>Non-qualifiers (rental)</b>	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.
<b>Normal rental</b>	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