THE ESTABLISHMENT SURVEY

TECHNICAL REPORT

Prepared by Kantar TNS March 2020









1. Introduction

The collection of data for the Establishment Survey (ES) commenced on 1 July 2016. The aim is for media owners, marketers, and advertisers to use the survey as a strategic inter-media planning tool, as the ES surveys media usage across all media types by all major demographics.

It provides a demographic, geographic, lifestyle, product and multi-media landscape of South Africa. In addition, ES allows for cross-platform and cross-device media consumption analysis.

The survey consists of a face-to-face interview designed to collect information about households and individuals aged 15 years and older, representative of the adult South African population.

ES data is released bi-annually, in March and September of each year.

2. Definition of terms

Area classification

Areas are classified into one of three area types based on a fixed set of criteria and using the municipal code and geography type as per Stats SA Census 2011, namely:

Metro: Small Areas (SAs) falling within the boundaries of the eight 'Metropolitan Municipalities' as defined by the National Demarcation Board (that being Ekurhuleni, City of Johannesburg, City of Tshwane, Mangaung, Buffalo City, Nelson Mandela Bay, eThekwini and City of Cape Town) AND classified as 'Urban' according to the geo type variable in the Census 2011 data.

Urban: Small Areas that are within the borders of an 'Other Municipality' (municipal code) and defined as 'Urban' (geography type); or within the borders of one of the 'Metropolitan Municipalities' (municipal code) and defined as 'Farm' or 'Traditional' (geography type).

Rural: Small Areas that are classified as 'Traditional' or 'Farm' in the Census 2011 data (based on the geo type variable) and are located within 'Other Municipality'.

A more detailed breakdown of area types is available in Appendix A and Appendix B of this document.

8 Metropolitan Municipalities

These are defined by the Municipal Demarcation Board and include the municipalities of Ekurhuleni, City of Johannesburg, City of Tshwane, Mangaung (Bloemfontein), Buffalo City (East London), Nelson Mandela Bay (Port Elizabeth), eThekwini (Durban), and City of Cape Town.

Geography Types (Geo-types)

Based on Stats SA classifications using input from the Surveyor General. These include three classifications i.e. i. Urban, ii. Farm and iii. Traditional.

CAPI

CAPI (Computer Assisted Personal Interview) interviewing is conducted face-to-face using a questionnaire deployed on a tablet. An interviewer conducts the interview as per the CAPI script, and captures the answers on the tablet. Data is uploaded to a central database once the interview is complete.

Geography type

The geography type is based on the official Statistics South Africa classification which uses input from the Surveyor General. The three geography types are Urban, Farm and Traditional.

Household

A group of people who eat and sleep in the house at least 4 days out of a week. If a house has a backroom, granny flat, cottage, shack or other separate dwelling, the first step is to determine if the person (or persons) living in that dwelling forms (or form) a separate household, or if they are part of the household living in the main dwelling according to the following:

If a person sleeps in a separate dwelling on the same property, but shares meals with the household in the main dwelling at least 4 days out of a week, they form part of the same household.

However, if the person (or persons) in the backyard dwelling eats (or eat) separately, they form a household on their own and must be counted as such. If there is more than one household on a stand then the Kish grid will be used to determine which household is to be interviewed.

Household income

The total claimed income of all members in the household before tax or any other deductions.

Household register

Upon recruiting the household, the interviewer lists all the household members, from oldest to youngest, in the household register. Those who are away during the interviewing period, are listed separately as non-qualifying members.

IHS

IHS are expert demographers, providing comprehensive global market, industry and technical expertise. For the Establishment Survey, IHS provides up-to-date population estimates. Shifts in population estimates across 2016 - 2018 can be seen in Appendix C.

Kish grid

A method developed by statistician Leslie Kish in 1949, used to randomly select the member of a household to be interviewed by way of a pre-assigned table of random numbers.

Language

Language spoken most often

Language spoken most often by the interviewed respondent

Language spoken most often in home

Language spoken most often in the respondent's home

Languages read and understand

All languages read and understood by the interviewed respondent

Municipal code

Identifies the official municipality of the Small Area. Municipalities and their boundaries are officially recognised areas as defined by the Municipal Demarcation Board. Eight municipalities have been classified as 'Metropolitan Municipalities', namely Ekurhuleni, City of Johannesburg, City of Tshwane, Mangaung, Buffalo City, Nelson Mandela Bay, eThekwini and City of Cape Town.

Personal income

The claimed personal income before tax or any other deductions.

PPS sampling

Probability Proportionate to Size (PPS) sampling is an approach in which the selection probability for each element is set to be proportional to its size. For ES, Small Areas are listed along with their associated populations (age 15+). These numbers are cumulated – effectively numbering the population. Random numbers are used to select these notionally numbered people. This results in a list of Small Areas in which these people live, the probability of a Small Area being selected then being proportional to its population size.

Proportionate sampling

The ES sample is drawn in direct proportions to the South African population in terms of province and area type, in order to preserve the purity and stability of the population data. No disproportionate sampling will be implemented, which ensures that the sample in every six-month data period is proportionate to major conurbations, as well as province.

Province

The nine provincial boundaries in the ES sample align with those of Statistics South Africa.

Respondent

The person in the household (aged 15 years or older) randomly selected using the household roster and Kish grid. The respondent completes the interview.

Sampling frame

The Kantar TNS master sampling frame lists all Small Areas (SAs) together with a number of variables at SA level, such as population size (used for SA selection based on PPS sampling), province, main place name and code, sub-place name and code, dominant race group and Kantar TNS Field Manager allocation.

Sampling Interval

The sampling interval is the number of houses to be counted between each visiting point. The interval is calculated within each SA, using the number of households per SA as a crude measure of size.

Small Areas (SA)

The Small Area (SA) code is based on the 2011 Census. The SAs are a very low level geographical classification of areas and in 90% of cases, the SA is the same as the Enumeration Area (EA), while the balance of SAs are made up of two or more EAs.

Starting point

The starting point is a random point, marked as an X' on the map supplied to the interviewer. The random starting point is generated through Geographic Information System (GIS) technology, using a random number generator to allocate a random value for the x- and y- coordinates (longitude & latitude) for a point located in the Small Area map.

Substitution

Substitution means the purposeful replacement of an originally selected household or Small Area, in accordance with agreed rules.

Total population

Total population refers to the total number of people living in the Small Area.

Total population \geq 15 years of age refers to the total number of people aged 15 years or older living in the Small Area. In other words, this is the total number of people who could be interviewed.

Total population < 15 years of age refers to the total number of people below the age of 15 years living in the Small Area. In other words, this is the total number of people who are not eligible for interviewing but who still reside in the Small Area.

3. The ES sample

The annual sample size is 25,000 interviews.

Interviewing is spread proportionately across the country over 49 weeks of the year. This ensures that all periods, area types and provinces are consistently covered, resulting in stable data.

Four (4) household interviews are completed per Small Area; therefore, 6,250 Small Areas per annum are drawn in order to achieve the annual sample of 25,000 households.

The sampling approach

The sample is drawn through strata created using province and area type as explicit variables.

The dataset used to develop the ES master sampling frame is delivered by IHS on an annual basis.

Kantar TNS conducts quality assurance checks on the IHS dataset. Checks are done on the IHS dataset focusing on:

Google Earth enabled verification of low population SAs

Duplicates

Range of data (e.g. no negative values for population figures)

Current dataset vs previous IHS dataset (e.g. consistency in geography type and municipality)

The quality-assured IHS dataset forms the basis of the Kantar TNS master sampling frame which lists a number of variables at SA level, such as population size, province, main place name and code, sub-place name and code, dominant race group and Kantar TNS Field Manager allocation.

SAs identified as Industrial, Institutional, Parks and Recreation are excluded from the master sampling frame used for PPS sampling.

Area selection

Using the master sampling frame, a stratified multistage sample design is used to draw a sample of 12,500 households per wave, from 3,125 Small Areas (SAs).

Area splits follow actual population distribution as provided by IHS.

A sampling frame of SAs at sub-sample level (per area type per province) has been developed.

A Probability Proportional to Size (PPS) approach is applied to ensure the correct and random selection of starting points per area type per province. The PPS is generally accepted to be the most appropriate approach to sampling for programmes such as the Establishment Survey.

Small Areas (SAs) are then randomly selected from the sampling frame according to the area type and province, and used by the Kantar TNS Field team to select households to interview.

Household selection

Once the SAs for interviewing have been selected, the households to interview in that SA must be identified.

Using the sampling interval, and referring to the random starting point, visiting points and substitute points are identified before continuing on to identify the person to be interviewed in each household. One substitute point is allowed for each visiting point, that is, if four interviews are to be completed per SA, a total of eight visiting points are identified per SA (four original points and four substitute points).

Respondent selection

To identify the respondent in the home to be interviewed for the survey, a Kish grid is used. This approach requires the interviewer to record all the individuals at that household who are 15 years or older and who reside and eat there four or more nights of the week.

By using the Kish grid, the interviewer will select the respondents at random and regardless of gender, resulting in a broad range of responses to the questions included in the survey. In other words, not just heads of household or 'gatekeepers' will be chosen for the interview.

By following the outlined process, a randomly selected area, randomly selected households within that area, and randomly selected persons to interview for the survey within the selected household.

Substitution

There are two types of substitution which may be applied: area substitution and visiting point or household substitution.

Area substitution

In terms of area substitution, an SA may be substituted for another similar SA in the same area only if that area is inaccessible for a specific reason. Reasons may include that there are no homes in that area or it is unsafe due to excessive crime. In these instances, the entire SA would need to be replaced with a similar SA in the same area. Where possible, we use our in-house Geographic Information System (GIS) and Google Earth to check the validity of claims.

It may also happen that the interviewer in an SA selects visiting points and substitute visiting points but cannot complete any interviews in that area for valid reasons. For this scenario, the SA would need to be substituted in its entirety. In some instances, the interviewer may only be able to complete some of the required number of interviews for any given area, in which case, the area may be 'closed' with fewer

completed interviews. A substitute SA will then be selected for the completion of the outstanding balance.

Household substitution

An interviewer may use a substitute visiting point within the SA only if they have been back to the originally selected home on four separate occasions at different times of the day and on different days of the week (for Metro and Urban only) and have been unable to complete an interview with the randomly chosen respondent for a valid reason, such as refusal or in the case of the visiting point being a child-headed household.

Up to a total of eight visiting points are allowed per SA (four original points and four substitute points).

No substitution of individuals within a household is allowed. If the selected individual is not present at the time of the original placement interview, the interviewer will make an appointment to return to conduct the interview.

4. Interviewer training

Before the start of fieldwork, face-to-face briefings across the provinces were conducted with all interviewers working on ES. Further interviewer briefings are held annually, and as and when required following any changes made to the questionnaire.

All interviewers are supplied with interview instructions and a mock questionnaire to refer to in field.

The interviewers are assigned areas they are familiar with and are therefore able to relate to respondents and properly engage with them in their preferred language.

5. Survey technique

The ES Questionnaire

The questionnaire uses a "top-down" structure (not brand led). The graphic below illustrates the main questionnaire components.

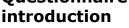
Questionnaire introduction



Media sections



Profiling



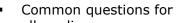
Literacy test



Multi-media screener

Equipment in home





- all media Number of days used in
- average week Time spent per weekday/Sat/Sun
- Devices/platforms
- Media-specific questions
- On the go

- Demographics
- Geographics
- Lifestyles
- Products
- SEM variables

Interview equipment and software

The interview is conducted via the CAPI platform on a tablet, with the use of paper show cards.

Interview day

The interviews are spread across all 7 days of the week.

6. Quality control

Interviews are back-checked independently of the field teams. Back-checks are done telephonically or face-to-face. A minimum of 20% of all questionnaires (interviews) and a minimum of 10% of each interviewer's work is back-checked.

7. Sample Weighting

After data collection, the data will be appropriately weighted, to align the sample with the target population as closely as possible.

The ES data is weighted to match the data released by IHS. Weights are applied within each province/area type combination, of which there are twenty-three. The ES data is weighted on both an individual and a household level.

The following variables are used to weight the data on an individual level:

Province Area type Race Gender Age

The following variables are used to weight the data on a household level:

Province Area type Race

Random Iterative Method (RIM) weighting is applied. RIM weighting uses a mathematical algorithm to help provide an even distribution of results across the province and area type, while balancing the required weighting variables with predetermined totals.

It weights the specified variables simultaneously and disturbs each variable as little as possible. This in turn protects the integrity of the data and supports the precision of research estimates.

A weighting efficiency report is produced on a bi-annual basis.

8. Household and Individual weighted questions

As a general guide, it is suggested the following questions are to be run using Household weights:

- A2a. Equipment in home
- A3a. Number of radio sets
- A3b. Number of working TV sets
- A4. TV sets not working
- T5a. Type of TVs in home
- T5b. Reception type for TVs in home
- T5c. Decoders attached to TVs in home
- T5d. Other devices attached to TVs in home
- T5e. Internet access on TVs in home
- T5f. Internet access used on TVs in home
- T8. TV services
- Z3. Type of shelter
- Z4. Type of dwelling (gated community vs. free-standing house)
- Z5. Roof material
- Z6. Floor material
- Z7. Sleeping rooms
- Z8. Water
- Z8b. Hot running water
- Z9. Toilet
- Z10. Electricity in home
- Z11. Electricity source
- Z12. Local infrastructure (police station, post office)
- Z13. Structural items in home
- Z15. Number of cellphones in household
- Z16. Durables in home
- Z17. Domestic worker, helper or gardener
- Z24. Language spoken most often in home
- MHI. Monthly household income (detailed groups)
- MHIb. Monthly household income (broad groups)

All other questions are to be run using Individual weights.

9. Establishment Survey SEM™ 2018 (Socio-Economic Measure)

In October 2016, SEM was developed using correspondence analysis as the basis. The correspondence analysis involved starting with 131 variables from various sources namely LSM 2014, PA SES (Kantar TNS Pan African Socio-Economic Segmentation), IWI (International Wealth Index) and other key household variables in the ES questionnaire.

The first iteration with the 131 variables resulted in good inertia and the desired horseshoe shape, however, the removal of spurious variables, non-differentiating durables and overlapping variables at the top end created an even stronger measure. Over various iterations, a final fourteen variables were selected to calculate the SEM score.

From April to May 2018 a statistical review of the initial SEM model was conducted to confirm its validity using a much larger ES dataset.

Key stakeholders within the industry were invited to provide feedback on SEM, the individual SEM inputs were reviewed, and the resultant outputs were scrutinised.

Results confirmed the validity of the SEM model, with only one small change to the inputs being recommended:

The 2018 SEM scoring system is based on the original 14 SEM input variables with the combined freezer variable (i.e. the inclusion of Side-by-side fridge and freezer). The 2018 SEM scoring system only required very minor scoring system adjustments from the original 2016 scoring system.

The final 14 input variables used in the SEM™ 2018 calculation are listed below:

Built-in kitchen sink

Water source/Hot running water

Type of toilet

Motor car

Microwave oven

Washing machine

Deep freezer which is free standing/Side-by-side fridge and freezer

Floor polisher or vacuum cleaner

Type of roof material

Type of floor material

Number of sleeping rooms

Home security service

Post Office near where you live

Police station near where you live

Each individual is given a score on a continuum from 0 (low socio-economic living) to 100 (high socio-economic living) depending which of these 14 variables the individual has access to in and around their home.

The SEM continuum is currently divided into the following groups for ease of use:

20 equal groups (SEM 1L to SEM 10H)

10 equal groups (SEM 1 to SEM 10)

5 Supergroups (Supergroup 1 to Supergroup 5)

3 Supergroups (Supergroup L; Supergroup M; Supergroup H)

Users still, however, have the flexibility to spread the scores in any way they wish.

10. Life Stage Segmentation

A Life Stage Segmentation has been developed using the following variables: Respondent age Marital status Care for children under 21 years Whether or not living with parents Ages of others in the household

The segmentation comprises 8 segments, as follows:

		Caregiver to children <21 in home	NOT caregiver to children <21 in home							
	Respondent age	15 years+	15-34 years	35-49 years	50 years+					
	Married	Young/Mature	Vouna	Matura Cauplas						
status	Living with a partner	Family*	Young (Mature Couples						
	Single									
iţal	Divorced	Single Parent Family	Young Singles**	Mature Singles						
Marital	Widowed									
_	Refused		Other							

*Young/Mature Family split into:

roung/iviature railin	y spire into:				
Young Family	Only children younger than 18 years				
Mature Family	At least one child aged 18, 19 or 20				
Other	No information on child ages available				

**Young Singles split into:

Young Independent Singles	NOT living at home with parents
At-Home Singles	Living at home with parents

11. Income Modelling

Not all people are comfortable giving their income at the detailed level. Broader income breaks are subsequently provided to give people an opportunity to give us income breaks they are more comfortable sharing. There were still refusals at the broader level, but income levels have been modelled using discriminant analysis.

Kantar TNS uses all variables in the questionnaire that could in any form be correlated to income – e.g. items in household, education level, occupation and area type to model broad income groups.

12. Reporting

A six-monthly release deck is produced on data from the preceding twelve-months.

The data is released to the industry through Third Party Software Providers, approved by the BRC and PRC.

Appendix A: Detailed Breakdown of Area Types

Source: IHS June 2018

Eastern Cape

Metro – small areas which fall within the borders of the below 'Metropolitan Municipalities' (Buffalo City, Nelson Mandela Bay) AND are defined as "Urban" geography type in the Census 2011 data

Buffalo City Nelson Mandela Bay

Urban - small areas which fall within the borders of the below 'Metropolitan Municipalities' (Buffalo City, Nelson Mandela Bay) AND are defined as "Traditional" or "Farm" geography type in the Census 2011 OR are within the borders of the 'Other municipalities' listed below and defined as "Urban" geography type in the Census 2011 data

Amahlathi Maletswai
Baviaans Matatiele
Blue Crane Route Mbhashe
Buffalo City Mbizana
Camdeboo Mhlontlo
Elundini Mnquma
Emalahleni Ndlambe

Engcobo Nelson Mandela Bay

Gariep Ngqushwa Great Kei Ngquza Hill Ikwezi Nkonkobe Ntabankulu Inkwanca Intsika Yethu Nxuba Inxuba Yethemba Nyandeni King Sabata Dalindyebo Sakhisizwe Kouga Sengu

Kou-Kamma Sundays River Valley

Lukanji Tsolwana Umzimvubu

Rural - small areas which fall within the borders of the 'Other municipalities' listed below and are defined as "Traditional" or "Farm" geography type in the 2011 Census data

Amahlathi
Baviaans
Blue Crane Route
Camdeboo
Elundini
Emalahleni
Engcobo
Gariep
Great Kei
Ikwezi
Inkwanca
Intsika Yethu
Inxuba Yethemba

Kouga Kou-Kamma Lukanji Makana

Maletswai

King Sabata Dalindyebo

Mbhashe
Mbizana
Mhlontlo
Mnquma
Ndlambe
Ngqushwa
Ngquza Hill
Nkonkobe
Ntabankulu
Nxuba
Nyandeni
Port St Johns
Sakhisizwe

Matatiele

Sundays River Valley

Tsolwana Umzimvubu

Sengu

Free State

Metro – small areas which fall within the borders of the below 'Metropolitan Municipality' (Mangaung) AND are defined as "Urban" geography type in the Census 2011 data.

Mangaung

Urban - small areas which fall within the borders of the below 'Metropolitan Municipality' (Mangaung) AND are defined as "Traditional" or "Farm" geography type in the Census 2011 OR are within the borders of the 'Other municipalities' listed below and defined as "Urban" geography type in the Census 2011 data

Dihlabeng Mohokare Moqhaka Kopanong Nala Letsemeng Mafube Naledi Maluti a Phofung Ngwathe Nketoana Mangaung Phumelela Mantsopa Masilonyana Setsoto Matjhabeng Tokologo Metsimaholo Tswelopele

Rural - small areas which fall within the borders of the 'Other municipalities' listed below and are defined as "Traditional" or "Farm" geography type in the 2011 Census data

Dihlabeng Moghaka Nala Kopanong Naledi Letsemeng Mafube Ngwathe Maluti a Phofung Nketoana Phumelela Mantsopa Masilonyana Setsoto Matjhabeng Tokologo Metsimaholo Tswelopele

Mohokare

Gauteng

Metro – small areas which fall within the borders of the below 'Metropolitan Municipalities' (City of Johannesburg, City of Tshwane and Ekurhuleni) AND are defined as "Urban" geography type in the Census 2011 data

Ekurhuleni

City of Johannesburg

City of Tshwane

Urban - small areas which fall within the borders of the below 'Metropolitan Municipalities' (City of Johannesburg, City of Tshwane and Ekurhuleni) AND are defined as "Traditional" or "Farm" geography type in the Census 2011 OR are within the borders of the 'Other municipalities' listed below and defined as "Urban" geography type in the Census 2011 data

City of Johannesburg Merafong City
City of Tshwane Midvaal
Ekurhuleni Mogale City
Emfuleni Randfontein
Lesedi Westonaria

Rural - small areas which fall within the borders of the 'Other municipalities' listed below and are defined as "Traditional" or "Farm" geography type in the 2011 Census data

Emfuleni Mogale City
Lesedi Randfontein
Merafong City Westonaria

Midvaal

KwaZulu Natal

Metro – small areas which fall within the borders of the below 'Metropolitan Municipality' (eThekwini) AND are defined as "Urban" geography type in the Census 2011 data

eThekwini

Urban - small areas which fall within the borders of the below 'Metropolitan Municipality' (eThekwini) AND are defined as "Traditional" or "Farm" geography type in the Census 2011 OR are within the borders of the 'Other municipalities' listed below and defined as "Urban" geography type in the Census 2011 data

Abaqulusi
Dannhauser
eDumbe
Emadlangeni
Emagnithi / Ladvem

Emnambithi/Ladysmith Endumeni

eThekwini Greater Kokstad Hibiscus Coast

Hlabisa Imbabazane Impendle Indaka

Ingwe Jozini Kwa Sani KwaDukuza Mandeni Mfolozi

Mkhambathini Mpofana Msinga

Mthonjaneni

Mtubatuba Ndwedwe Newcastle Nkandla Nongoma Nqutu

Okhahlamba Richmond

The Big 5 False Bay The Msunduzi Ubuhlebezwe

Ulundi Umdoni uMhlathuze uMlalazi uMngeni uMshwathi Umtshezi UMuziwabantu

Umvoti Umzimkhulu UPhongolo

Rural - small areas which fall within the borders of the 'Other municipalities' listed below and are defined as "Traditional" or "Farm" geography type in the 2011 Census data

Abaqulusi Ndwedwe
Dannhauser Newcastle
eDumbe Nkandla
Emadlangeni Nongoma
Emnambithi/Ladysmith Nqutu

Endumeni Ntambanana Ezingoleni Okhahlamba Greater Kokstad Richmond

Hibiscus Coast

Hlabisa

The Big 5 False Bay

The Msunduzi

Imbabazane

Ubuhlebezwe

Impendle Ulundi Indaka Umdoni

Ingwe Umhlabuyalingana
Jozini uMhlathuze
Kwa Sani uMlalazi
KwaDukuza uMngeni
Mandeni uMshwathi
Maphumulo Umtshezi
Mfolozi UMuziwabantu

Mkhambathini Umvoti
Mpofana Umzimkhulu
Msinga Umzumbe
Mthonjaneni UPhongolo

Vulamehlo

Mtubatuba

Limpopo

Urban - small areas which fall within the borders of the 'Other municipalities' listed below and defined as "Urban" geography type in the Census 2011 data

Ba-Phalaborwa Makhado Bela-Bela Maruleng **Blouberg** Modimolle Elias Motsoaledi Mogalakwena Molemole Ephraim Mogale Greater Giyani Mookgopong **Greater Letaba** Musina **Greater Tubatse** Mutale **Greater Tzaneen** Polokwane Lepele-Nkumpi Thabazimbi Lephalale Thulamela

Rural - small areas which fall within the borders of the 'Other municipalities' listed below and are defined as "Traditional" or "Farm" geography type in the 2011 Census data

Aganang Makhado

Ba-Phalaborwa Makhuduthamaga

Bela-Bela Maruleng
Blouberg Modimolle
Elias Motsoaledi Mogalakwena
Ephraim Mogale Molemole
Fetakgomo Mookgopong
Greater Giyani Musina

Greater Letaba Mutale
Greater Tubatse Polokwane
Greater Tzaneen Thabazimbi
Lepele-Nkumpi Thulamela

Lephalale

Mpumalanga

Urban - small areas which fall within the borders of the 'Other municipalities' listed below and defined as "Urban" geography type in the Census 2011 data

Albert Luthuli Mkhondo
Bushbuckridge Msukaligwa
Dipaleseng Nkomazi

Dr JS Moroka Pixley Ka Seme
Emakhazeni Steve Tshwete
Emalahleni Thaba Chweu
Govan Mbeki Thembisile
Lekwa Umjindi

Mbombela Victor Khanye

Rural - small areas which fall within the borders of the 'Other municipalities' listed below and are defined as "Traditional" or "Farm" geography type in the 2011 Census data

Albert Luthuli Mkhondo
Bushbuckridge Msukaligwa
Dipaleseng Nkomazi

Dr JS Moroka Pixley Ka Seme Emakhazeni Steve Tshwete Emalahleni Thaba Chweu Govan Mbeki Thembisile Lekwa Umjindi

Mbombela Victor Khanye

North West

Urban - small areas which fall within the borders of the 'Other municipalities' listed below and defined as "Urban" geography type in the Census 2011 data

City of Matlosana Maquassi Hills Ditsobotla Moretele **Greater Taung** Moses Kotane

Kagisano/Molopo Naledi

Kgetlengrivier Ramotshere Moiloa

Lekwa-Teemane Rustenburg

Tlokwe City Council Madibeng

Mafikeng **Tswaing** Mamusa Ventersdorp

Rural - small areas which fall within the borders of the 'Other municipalities' listed below and are defined as "Traditional" or "Farm" geography type in the 2011 Census data

City of Matlosana Moretele Moses Kotane Ditsobotla

Greater Taung Naledi

Kagisano/Molopo Ramotshere Moiloa

Kgetlengrivier Ratlou Lekwa-Teemane Rustenburg

Madibeng **Tlokwe City Council**

Mafikeng **Tswaing** Mamusa Ventersdorp

Maquassi Hills

Northern Cape

Urban - small areas which fall within the borders of the 'Other municipalities' listed below and defined as "Urban" geography type in the Census 2011 data

!Kheis Magareng //Khara Hais Mier Dikgatlong Nama Khoi Emthanjeni Phokwane Renosterberg Gamagara Richtersveld Ga-Segonyana Hantam Siyancuma Joe Morolong Siyathemba Kai !Garib Sol Plaatjie Kamiesberg Thembelihle Kareeberg Tsantsabane Karoo Hoogland Ubuntu Kgatelopele Umsobomvu

KhGi-Ma

Rural - small areas which fall within the borders of the 'Other municipalities' listed below and are defined as "Traditional" or "Farm" geography type in the 2011 Census data

Ubuntu

Umsobomvu

!Kheis Magareng //Khara Hais Mier Nama Khoi Dikgatlong Phokwane Emthanjeni Gamagara Renosterberg Richtersveld Ga-Segonyana Siyancuma Hantam Joe Morolong Siyathemba Kai !Garib Sol Plaatjie Kamiesberg Thembelihle Kareeberg Tsantsabane

Kgatelopele KhGi-Ma

Karoo Hoogland

Western Cape

Metro – small areas which fall within the borders of the below 'Metropolitan Municipality' (City of Cape Town) AND are defined as "Urban" geography type in the Census 2011 data

City of Cape Town

Urban - small areas which fall within the borders of the below 'Metropolitan Municipality' (City of Cape Town) AND are defined as "Traditional" or "Farm" geography type in the Census 2011 OR are within the borders of the 'Other municipalities' listed below and defined as "Urban" geography type in the Census 2011 data

Beaufort West Langeberg Bergrivier Matzikama Bitou Mossel Bay **Breede Valley** Oudtshoorn Cape Agulhas Overstrand Prince Albert Cederberg City of Cape Town Saldanha Bay Drakenstein Stellenbosch Swartland George Hessequa Swellendam Kannaland Theewaterskloof Knysna Witzenberg

Laingsburg

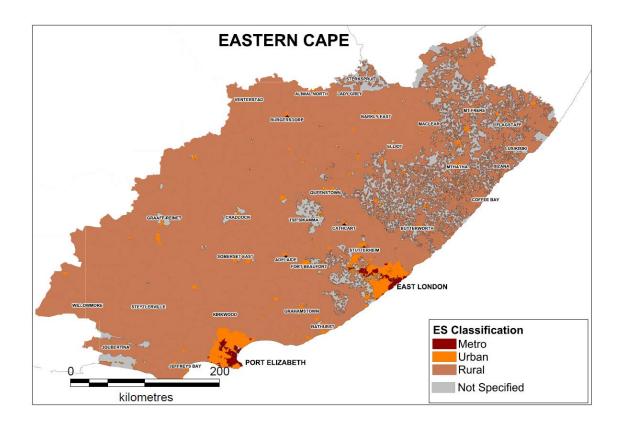
Rural - small areas which fall within the borders of the 'Other municipalities' listed below and are defined as "Traditional" or "Farm" geography type in the 2011 Census data

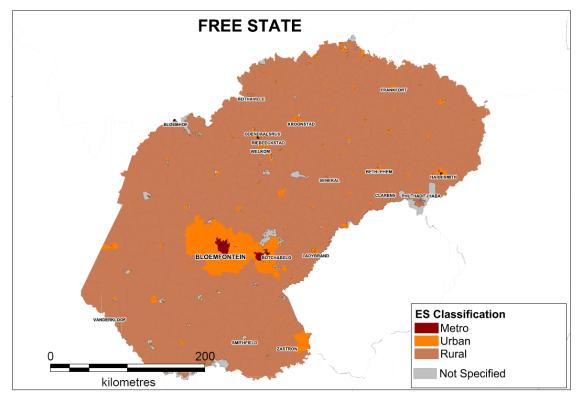
Beaufort West Prince Albert
Bergrivier Saldanha Bay
Bitou Stellenbosch
Breede Valley Swartland
Cape Agulhas Swellendam
Cederberg Theewaterskloof
Drakenstein Witzenberg

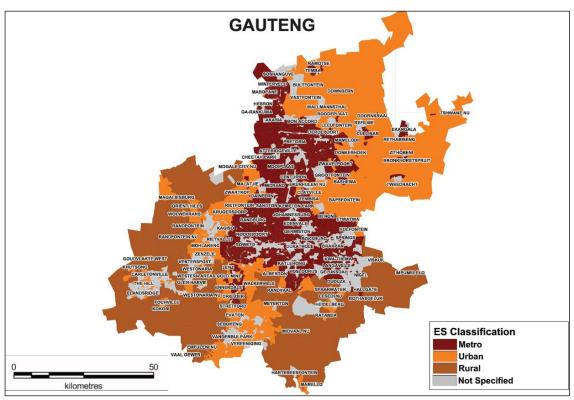
George
Hessequa
Kannaland
Knysna
Laingsburg
Langeberg
Matzikama
Mossel Bay
Oudtshoorn
Overstrand

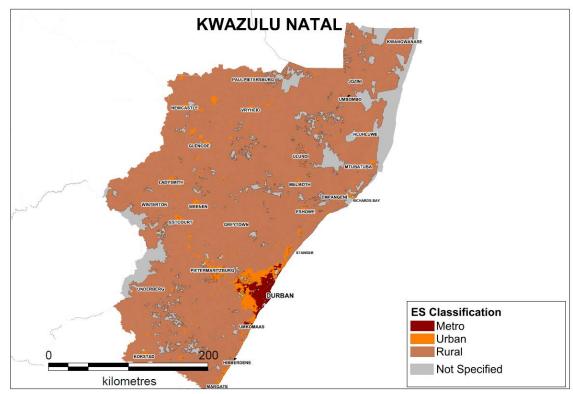
Appendix B: Provincial Maps illustrating the Geographic Landscape of the Area Types in the Establishment Survey

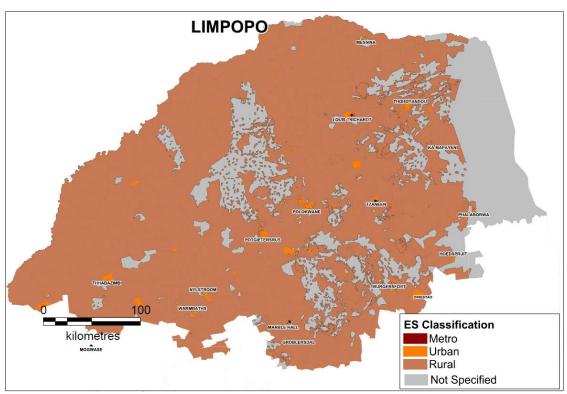
Please note the grey areas on the maps below indicate the areas (institutional, recreational and industrial) that are excluded from the sampling dataset.

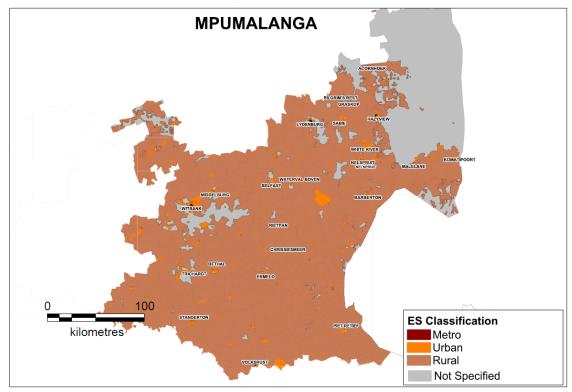


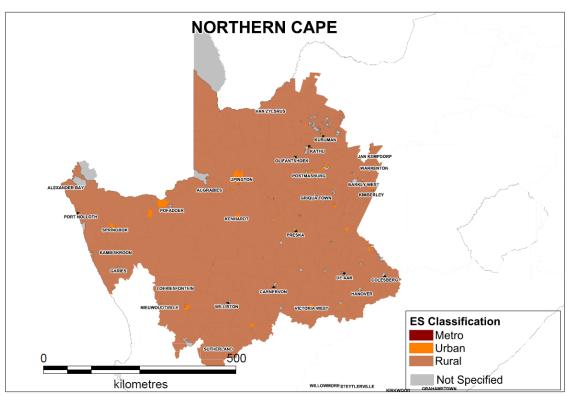


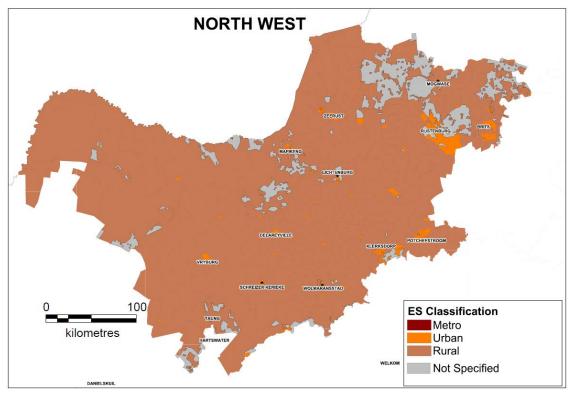


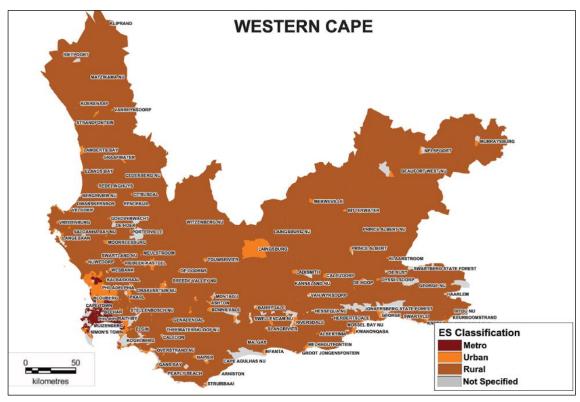












Appendix C: Shifts in IHS Population Estimates

15+ Individuals: Overall

IHS Universe:	IHS Ju	n 2016	IHS Ju	n 2017	IHS Ju	n 2018
5+ Individuals	000s				000s	%
Total	39473	100%	40073	100%	40716	100%
Area type						
Metro	16116	41%	16393	41%	16681	41%
Urban	11212	28%	11361	28%	11534	28%
Rural	12145	31%	12318	31%	12502	31%
Province						
Eastern Cape	4764	12%	4825	12%	4893	12%
Free State	2030	5%	2046	5%	2065	5%
Gauteng	10017	25%	10217	25%	10424	26%
KwaZulu Natal	7550	19%	7655	19%	7768	19%
Limpopo	3815	10%	3861	10%	3913	10%
Mpumalanga	2935	7%	2982	7%	3033	7%
North West	2650	7%	2686	7%	2726	7%
Northern Cape	870	2%	883	2%	898	2%
Western Cape	4841	12%	4919	12%	4997	12%
Age groups						
15 - 24 years	9542	24%	9418	24%	9373	23%
25 - 34 years	10916	28%	10984	27%	10988	27%
35 – 49 years	9896	25%	10329	26%	10789	26%
50 - 64 years	5865	15%	5978	15%	6087	15%
65 years +	3255	8%	3365	8%	3479	9%
Race						
Black	31086	79%	31631	79%	32220	79%
White	3700	9%	3655	9%	3683	9%
Indian	1082	3%	1095	3%	1108	3%
Coloured	3606	9%	3691	9%	3706	9%

15+ Individuals: Province within Area Type

IHS Universe:	IHS Ju	n 2016	IHS Ju	n 2017	IHS Ju	n 2018
15+ Individuals	000s				000s	%
Total	39473		40073		40716	
Metro	16116	100%	16393	100%	16681	100%
Eastern Cape	1435	9%	1448	9%	1467	9%
Free State	565	4%	584	4%	590	4%
Gauteng	8490	53%	8652	53%	8831	53%
KwaZulu Natal	2503	16%	2541	16%	2579	15%
Western Cape	3122	19%	3168	19%	3214	19%
Urban	11212	100%	11361	100%	11534	100%
Eastern Cape	1084	10%	1113	10%	1129	10%
Free State	1194	11%	1165	10%	1169	10%
Gauteng	1473	13%	1504	13%	1529	13%
KwaZulu Natal	1890	17%	1960	17%	1999	17%
Limpopo	816	7%	817	7%	828	7%
Mpumalanga	1511	13%	1518	13%	1542	13%
North West	1212	11%	1222	11%	1238	11%
Northern Cape	679	6%	678	6%	684	6%
Western Cape	1353	12%	1384	12%	1415	12%
Rural	12145	100%	12318	100%	12502	100%
Eastern Cape	2246	18%	2264	18%	2297	18%
Free State	271	2%	297	2%	306	2%
Gauteng	54	0%	61	0%	63	1%
KwaZulu Natal	3157	26%	3154	26%	3189	26%
Limpopo	3000	25%	3044	25%	3085	25%
Mpumalanga	1424	12%	1463	12%	1491	12%
North West	1438	12%	1463	12%	1488	12%
Northern Cape	191	2%	205	2%	214	2%
Western Cape	366	3%	367	3%	369	3%

15+ Individuals: Province within Race

IHS Universe:	IHS Ju	n 2016	IHS Ju	n 2017	IHS Ju	n 2018	Diff 201	7 vs 2016	Diff 2018 vs 2017	
15+ Individuals	000s %				000s	%	000s		000s	%
Total	39473		40073		40716		600	2%	643	2%
Black	31086	100%	31631	100%	32220	100%	545	2%	588	2%
Eastern Cape	4074	13%	4129	13%	4192	13%	55	1%	63	2%
Free State	1749	6%	1765	6%	1784	6%	16	1%	19	1%
Gauteng	7914	25%	8101	26%	8295	26%	187	2%	194	2%
KwaZulu Natal	6414	21%	6518	21%	6629	21%	104	2%	112	2%
Limpopo	3686	12%	3731	12%	3782	12%	45	1%	51	1%
Mpumalanga	2656	9%	2700	9%	2749	9%	44	2%	49	2%
North West	2360	8%	2395	8%	2434	8%	35	1%	38	2%
Northern Cape	407	1%	417	1%	426	1%	10	2%	10	2%
Western Cape	1826	6%	1877	6%	1928	6%	51	3%	52	3%
White	3700	100%	3691	100%	3683	100%	-9	0%	-9	0%
Eastern Cape	257	7%	257	7%	256	7%	0	0%	-1	0%
Free State	203	5%	202	5%	201	5%	-1	0%	-1	0%
Gauteng	1459	39%	1456	39%	1455	40%	-3	0%	-2	0%
KwaZulu Natal	388	10%	386	10%	384	10%	-2	-1%	-2	-1%
Limpopo	102	3%	102	3%	102	3%	0	0%	0	0%
Mpumalanga	228	6%	229	6%	230	6%	1	0%	1	0%
North West	216	6%	216	6%	215	6%	0	0%	0	0%
Northern Cape	80	2%	79	2%	78	2%	-1	-1%	-1	-1%
Western Cape	767	21%	764	21%	762	21%	-3	0%	-3	0%
Indian	1082	100%	1095	100%	1108	100%	13	1%	13	1%
Eastern Cape	24	2%	24	2%	25	2%	0	0%	0	2%
Free State	8	1%	8	1%	8	1%	0	-1%	0	3%
Gauteng	302	28%	311	28%	319	29%	9	3%	9	3%
KwaZulu Natal	636	59%	637	58%	639	58%	1	0%	1	0%
Limpopo	14	1%	15	1%	15	1%	1	5%	0	3%
Mpumalanga	23	2%	24	2%	24	2%	1	3%	0	2%
North West	20	2%	21	2%	22	2%	1	5%	1	3%
Northern Cape	6	1%	6	1%	6	1%	0	2%	0	3%
Western Cape	49	4%	49	5%	50	5%	0	1%	1	2%
Coloured	3606	100%	3655	100%	3706	100%	49	1%	51	1%
Eastern Cape	409	11%	415	11%	421	11%	6	1%	6	1%
Free State	70	2%	71	2%	72	2%	1	2%	1	1%
Gauteng	342	9%	349	10%	355	10%	7	2%	6	2%
KwaZulu Natal	113	3%	114	3%	116	3%	1	1%	2	1%
Limpopo	13	0%	13	0%	14	0%	0	1%	0	3%
Mpumalanga	29	1%	29	1%	30	1%	0	1%	1	3%
North West	53	1%	54	1%	55	1%	1	1%	1	2%
Northern Cape	377	10%	382	10%	387	10%	5	1%	5	1%
Western Cape	2200	61%	2228	61%	2257	61%	28	1%	29	1%

15+ Individuals: Province within Age

IHS Universe:	IHS Ju	n 2016	IHS Ju	n 2017	IHS Ju	n 2018	Diff 2017	7 vs 2016	Diff 2018 vs 2017		
15+ Individuals	000s %		000s %		000s %		000s		000s	%	
Total	39473		40073		40716		600	2%	643	2%	
15 - 24 years	9542	100%	9418	100%	9373	100%	-124	-1%	-45	0%	
Eastern Cape	1327	14%	1298	14%	1282	14%	-29	-2%	-16	-1%	
Free State	494	5%	487	5%	485	5%	-7	-1%	-2	0%	
Gauteng	1939	20%	1935	21%	1946	21%	-4	0%	10	1%	
KwaZulu Natal	2069	22%	2041	22%	2028	22%	-28	-1%	-13	-1%	
Limpopo	1172	12%	1141	12%	1123	12%	-31	-3%	-18	-2%	
Mpumalanga	779	8%	773	8%	773	8%	-6	-1%	0	0%	
North West	605	6%	597	6%	595	6%	-8	-1%	-2	0%	
Northern Cape	212	2%	211	2%	211	2%	-1	0%	0	0%	
Western Cape	944	10%	934	10%	930	10%	-10	-1%	-4	0%	
25 - 34 years	10916	100%	10984	100%	10988	100%	68	1%	4	0%	
Eastern Cape	1273	12%	1301	12%	1319	12%	28	2%	19	1%	
Free State	552	5%	549	5%	544	5%	-3	-1%	-5	-1%	
Gauteng	2828	26%	2826	26%	2814	26%	-2	0%	-13	0%	
KwaZulu Natal	2156	20%	2173	20%	2175	20%	17	1%	2	0%	
Limpopo	1109	10%	1133	10%	1147	10%	24	2%	14	1%	
Mpumalanga	858	8%	860	8%	858	8%	2	0%	-2	0%	
North West	704	6%	705	6%	701	6%	1	0%	-4	-1%	
Northern Cape	208	2%	210	2%	212	2%	2	1%	2	1%	
Western Cape	1228	11%	1227	11%	1218	11%	-1	0%	-9	-1%	
35 - 49 years	9896	100%	10329	100%	10789	100%	433	4%	461	4%	
Eastern Cape	983	10%	1034	10%	1090	10%	51	5%	56	5%	
Free State	473	5%	490	5%	510	5%	17	4%	20	4%	
Gauteng	2956	30%	3077	30%	3200	30%	121	4%	123	4%	
KwaZulu Natal	1727	17%	1817	18%	1915	18%	90	5%	98	5%	
Limpopo	751	8%	791	8%	836	8%	40	5%	45	5%	
Mpumalanga	707	7%	743	7%	783	7%	36	5%	39	5%	
North West	683	7%	711	7%	741	7%	28	4%	30	4%	
Northern Cape	219	2%	226	2%	233	2%	7	3%	7	3%	
Western Cape	1397	14%	1438	14%	1482	14%	41	3%	44	3%	
50 - 64 years	5865	100%	5978	100%	6087	100%	113	2%	109	2%	
Eastern Cape	705	12%	707	12%	708	12%	2	0%	1	0%	
Free State	320	5%	321	5%	322	5%	1	0%	1	0%	
Gauteng	1569	27%	1618	27%	1667	27%	49	3%	49	3%	
KwaZulu Natal	990	17%	999	17%	1008	17%	9	1%	9	1%	
Limpopo	475	8%	481	8%	486	8%	6	1%	5	1%	
Mpumalanga	388	7%	394	7%	401	7%	6	2%	6	2%	
North West	429	7%	436	7%	443	7%	7	2%	7	2%	
Northern Cape	148	3%	151	3%	153	3%	3	2%	3	2%	
Western Cape	840	14%	870	15%	900	15%	30	4%	30	3%	
65+ years	3255	100%	3365	56%	3479	100%	110	3%	114	3%	
Eastern Cape	476	15%	485	14%	494	14%	9	2%	9	2%	
Free State	192	6%	198	6%	204	6%	6	3%	6	3%	
Gauteng	725	22%	760	23%	797	23%	35	5%	37	5%	
KwaZulu Natal	608	19%	625	19%	642	18%	17	3%	17	3%	
Limpopo	308	9%	315	9%	321	9%	7	2%	7	2%	
Mpumalanga	203	6%	211	6%	218	6%	8	4%	8	4%	
North West	229	7%	237	7%	246	7%	8	4%	9	4%	
Northern Cape	82	3%	85	3%	88	3%	3	4%	3	4%	
Western Cape	433	13%	450	13%	468	13%	17	4%	18	4%	

15+ Households: Overall

IHS Universe:	IHS Ju	n 2016	IHS Ju	n 2017	IHS Ju	n 2018
15+ Households	000s				000s	%
Total	15817	100%	16164	100%	16422	100%
Area type						
Metro	6723	43%	6902	43%	7031	43%
Urban	4520	29%	4601	28%	4669	28%
Rural	4575	29%	4661	29%	4721	29%
Province						
Eastern Cape	1824	12%	1849	11%	1869	11%
Free State	851	5%	860	5%	866	5%
Gauteng	4422	28%	4551	28%	4647	28%
KwaZulu Natal	2766	17%	2824	17%	2865	17%
Limpopo	1500	9%	1527	9%	1547	9%
Mpumalanga	1147	7%	1169	7%	1187	7%
North West	1158	7%	1184	7%	1202	7%
Northern Cape	325	2%	333	2%	339	2%
Western Cape	1824	12%	1868	12%	1900	12%
Race						
Black	12538	79%	12860	80%	13073	80%
White	1649	10%	1644	10%	1652	10%
Indian	404	3%	414	3%	419	3%
Coloured	1226	8%	1246	8%	1278	8%

15+ Households: Province within Area Type

IHS Universe:	IHS Ju	n 2016	IHS Ju	IHS Jun 2017		IHS Jun 2018		Diff 2017	7 vs 2016	Diff 2018 vs 2017	
15+ Households	000s				000s	%				000s	%
Total	15817		16164		16422			347	2%	258	2%
Metro	6723	100%	6902	100%	7031	100%		179	3%	129	2%
Eastern Cape	559	8%	566	8%	574	8%		7	1%	7	1%
Free State	239	4%	248	4%	251	4%		9	4%	2	1%
Gauteng	3765	56%	3875	56%	3959	56%		110	3%	84	2%
KwaZulu Natal	966	14%	990	14%	1005	14%		24	2%	15	2%
Western Cape	1194	18%	1223	18%	1243	18%		29	2%	20	2%
Urban	4520	100%	4601	100%	4669	100%		81	2%	69	1%
Eastern Cape	444	10%	456	10%	461	10%		12	3%	5	1%
Free State	503	11%	491	11%	492	11%		-12	-2%	1	0%
Gauteng	635	14%	651	14%	663	14%		16	3%	12	2%
KwaZulu Natal	721	16%	752	16%	768	16%		31	4%	16	2%
Limpopo	321	7%	325	7%	330	7%		4	1%	5	2%
Mpumalanga	605	13%	611	13%	620	13%		6	1%	9	1%
North West	547	12%	557	12%	565	12%		10	2%	8	1%
Northern Cape	236	5%	236	5%	238	5%		0	0%	2	1%
Western Cape	506	11%	521	11%	532	11%		15	3%	11	2%
Rural	4575	100%	4661	100%	4721	100%		86	2%	60	1%
Eastern Cape	821	18%	827	18%	834	18%		6	1%	7	1%
Free State	109	2%	121	3%	124	3%		12	11%	3	3%
Gauteng	21	0%	24	1%	25	1%		3	15%	1	3%
KwaZulu Natal	1079	24%	1082	23%	1092	23%		3	0%	10	1%
Limpopo	1179	26%	1202	26%	1216	26%		23	2%	15	1%
Mpumalanga	542	12%	558	12%	567	12%		16	3%	9	2%
North West	610	13%	627	13%	637	13%		17	3%	10	2%
Northern Cape	88	2%	97	2%	101	2%		9	10%	4	4%
Western Cape	124	3%	124	3%	125	3%		0	0%	1	1%

15+ Households: Province within Race

IHS Universe:	IHS Ju	n 2016	IHS Ju	n 2017	IHS Ju	n 2018	Diff 2017	7 vs 2016	Diff 2018	vs 2017
15+ Households	000s		000s		000s	%	000s		000s	%
Total	15817		16164		16422		347	2%	258	2%
Black	12538	100%	12860	100%	13073	100%	322	3%	213	2%
Eastern Cape	1551	12%	1574	12%	1588	12%	23	1%	14	1%
Free State	727	6%	738	6%	744	6%	11	1%	6	1%
Gauteng	3522	28%	3655	28%	3739	29%	133	4%	84	2%
KwaZulu Natal	2315	18%	2369	18%	2405	18%	54	2%	36	1%
Limpopo	1446	12%	1473	11%	1493	11%	27	2%	20	1%
Mpumalanga	1052	8%	1076	8%	1094	8%	24	2%	17	2%
North West	1038	8%	1067	8%	1084	8%	29	3%	17	2%
Northern Cape	159	1%	163	1%	166	1%	4	3%	3	2%
Western Cape	727	6%	746	6%	761	6%	19	3%	16	2%
White	1649	100%	1644	100%	1652	100%	-5	0%	9	1%
Eastern Cape	120	7%	120	7%	122	7%	0	0%	2	2%
Free State	92	6%	91	6%	90	5%	-1	-1%	-1	-1%
Gauteng	657	40%	645	39%	650	39%	-12	-2%	4	1%
KwaZulu Natal	176	11%	177	11%	179	11%	1	1%	2	1%
Limpopo	44	3%	43	3%	43	3%	-1	-3%	0	1%
Mpumalanga	77	5%	75	5%	75	5%	-2	-3%	0	0%
North West	90	5%	87	5%	87	5%	-3	-3%	0	0%
Northern Cape	32	2%	32	2%	32	2%	0	1%	0	-1%
Western Cape	362	22%	373	23%	374	23%	11	3%	1	0%
Indian	404	100%	414	100%	419	100%	10	3%	4	1%
Eastern Cape	10	3%	10	3%	11	3%	0	5%	0	1%
Free State	5	1%	5	1%	5	1%	0	-3%	0	0%
Gauteng	113	28%	118	29%	121	29%	5	5%	3	2%
KwaZulu Natal	232	57%	235	57%	236	56%	3	1%	1	0%
Limpopo	6	1%	6	1%	6	1%	0	-2%	0	1%
Mpumalanga	8	2%	8	2%	8	2%	0	4%	0	1%
North West	8	2%	8	2%	9	2%	0	6%	0	2%
Northern Cape	3	1%	3	1%	3	1%	0	-11%	0	0%
Western Cape	19	5%	20	5%	21	5%	1	7%	0	1%
Coloured	1226	100%	1246	100%	1278	100%	20	2%	32	3%
Eastern Cape	143	12%	144	12%	148	12%	1	1%	4	3%
Free State	27	2%	27	2%	27	2%	0	-1%	1	2%
Gauteng	130	11%	132	11%	137	11%	2	1%	5	4%
KwaZulu Natal	43	3%	43	3%	45	4%	0	0%	3	6%
Limpopo	5	0%	5	0%	5	0%	0	-4%	0	7%
Mpumalanga	9	1%	9	1%	10	1%	0	5%	0	5%
North West	21	2%	22	2%	23	2%	1	3%	1	4%
Northern Cape	132	11%	135	11%	138	11%	3	2%	3	2%
Western Cape	717	58%	729	59%	744	58%	12	2%	15	2%