









Statistics South Africa Private bag X44 Pretoria 0001 South Africa

170 Thabo Sehume Street Pretoria 0002

User information service: 012 310 8600 Fax: 012 310 8500

Main switchboard: 012 310 8911 Fax: 012 321 7381

Website: www.statssa.gov.za Email: info@statssa.gov.za

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Technical Report

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Pali Lehohla Statistician-General

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Tel: (012) 310 8358

(012) 310 8093

Email: magdaj@statssa.gov.za

inadp@statssa.gov.za

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1. Introduction

The first National Household Travel Survey (NHTS) was conducted in 2003, and the second survey was executed by Statistics South Africa (Stats SA) from February to March 2013. The aim of the NHTS is to gain strategic insight into the travel patterns and transport problems in the country, and the collected information will serve as the basis for DoT research, planning and policy formulation. The information will further assist transport authorities to effectively target subsidies. This information will also serve as a data source for the definition and measurement of Key Performance Indicators for land passenger transport, as required in terms of the National Land Transport Transition Act (Act No. 22 of 2000).

The survey primarily covers land transport travel. Land transport focuses on public and private transport and includes non-motorised transport such as walking all the way, cycling or making use of animal-drawn vehicles. It encompasses travel related to education, work, business and leisure and migration for individuals. Most of the work and education related questions are associated with a randomly selected travel day (Monday to Friday). In addition to these themes, household-level information was also collected about the demographic profiles of individuals, socio-economic circumstances of households and general attitudes and perceptions about transport. Air and water transport are included as options when travellers were asked about the mode of travel used, but not as specific areas of enquiry.

The specific objectives of the study were:

- To assist in the evaluation and effective targeting of public transport subsidies;
- To identify transport needs in disadvantaged regions and communities;
- To understand the transport needs of households and travellers;
- ❖ To ascertain the cost of transport and assess whether households can afford to pay for the mobility which is essential for their survival;
- To assess attitudes towards transport services and facilities;
- To measure the availability and use of motor cars;
- To measure the availability and use of non-motorised transport;
- ❖ To understand the travel choices of different market segments;
- ❖ To assess the provision of accessibility to opportunities such as work, education, markets, medical, police and welfare services; and
- ❖ To measure key performance indicators (KPIs) as required by the National Land Transport Transition Act and the National Land Transport Strategic Framework.

This report provides a synopsis of the technical details of the NHTS 2013. It starts by describing the questionnaire design process and the contents of the questionnaire. Section 3 considers the sampling frame, listing, sample design and weighting process. This is followed by a section that recaps the procedures used during data collection. The final two sections deal with the response rates and indicators of quality, as well as highlighting the limitations of the study.

2. Questionnaire design

The NHTS 2013 questionnaire was largely based on the one used in 2003, but there was a need for some revision, recognising changes in the information needs of the Department of Transport (DoT) and stakeholders. The revision process also had to consider the need to standardise certain questions from a Stats SA perspective and the technological requirements for scanning and processing. The design process started with stakeholder consultation and progressed through a number of internal and external consultative workshops in which DoT played a key role.

The first draft of the questionnaire was subjected to behind-the-glass testing. This resulted in further modifications which were then tested in the field during the pilot survey. The pilot survey had three main objectives in addition to the testing of the questionnaire and its contents:

- To test the duration of interviews;
- To evaluate the methodologies around training, publicity and fieldwork; and
- ❖ To conduct trials on vehicle allocation, material distribution in the selected provinces and airtime allocation.

The impact of these additional objectives of the pilot survey on the ultimate execution of the survey will be discussed in more detail in Section 4 which deals with data collection. The final questionnaire consisted of 8 sections in addition to the cover page and demographic section. Its contents is summarised in Table 2.1. A copy of the questionnaire is also included in Annexure A and a comparative analysis of the 2013 and 2003 questionnaires is provided in Annexure B.

Table 2.1: Contents of the questionnaire

Section	Theme	Content	Number of questions
Cover page	General household, sample and data collection information	The cover page of the NHTS questionnaire contains information for use by the fieldworker (FW). It also contains details that enable the tracking of the questionnaires by Head Office as well as the provincial and district offices.	17
Demography section	Demographic characteristics	Demographic questions (e.g. gender, age, education) which are completed for all individual household members regardless of age.	8
Section 1	General characteristics	Household characteristics, social grants and general functioning for each individual in the household.	4
Section 2	General travel patterns	General travel patterns and modes of transport used by the household.	6
Section 3	Education related travel	Education and education related travel patterns of individuals.	14
Section 4	Work related travel	Work related travel patterns.	28
Section 5	Business related travel	Business trips as applicable to individuals 15 years and older who indicated that they are economically active in Section 4 of individuals.	5
Section 6	Other travel patterns	Other travel patterns including migrant labour and vacation trips of individuals.	11
Section 7	Life circumstances of households	General household information such as dwelling type, income and income sources, ownership of vehicles, etc.	11
Section 8	Household attitudes and perceptions	Attitudes and perceptions about transport and levels of satisfaction with the different public transportation modes. Language used during interview.	16
Back page	Official use	The final page is for office use. A table for general comments is also supplied. Here the question number, person number, and the general comments are recorded.	2

Even though care was taken during the design phase to make the questionnaire as clear and user-friendly as possible, it was found during training that it was necessary to draft standardised responses to queries raised during training on issues related to the phrasing of some questions and printing errors. The following points of clarification were identified during training and sent to the field to be used during provincial training and data collection.

Table 2.2: Problems/queries and clarifications/modifications made to questionnaire during training and fieldwork

Section	Question	Problem/query	Resolution/clarification
Cover page	D2: Survey Period	This field was supposed to have 7 blocks for 7 digits; one extra block was printed, making it 8 blocks in total.	Define all three blocks as 2 digits. Fieldworker to record the month code (2 digits) in any of the two blocks leaving the one block empty.
Section 3	Q3.5d, Q4.4d and Q5.5d	What should be done with the TAZ travelling code block?	The TAZ (Travelling Analysis Zone) code must be left blank. This will be recorded at DPC.
	Q3.11	What happens if the travel day falls under school holidays or the person is sick?	Record a single zero in the far right block. SUPERVISORS WERE REQUESTED TO MONITOR RESPONSES TO THIS QUESTION AND TO STRICTLY SEND BACK ANY QUESTIONNAIRES IN WHICH THERE ARE NO RESPONSES FOR HOUSEHOLD MEMBERS WHO ATTEND EDUCATIONAL INSTITUTIONS.
		What happens if the travel day falls under leave/sick leave for a person?	Record a single zero in the far right block. SUPERVISORS WERE REQUESTED TO MONITOR RESPONSES TO THIS QUESTION AND TO STRICTLY SEND BACK ANY QUESTIONNAIRES IN WHICH THERE ARE NO RESPONSES FOR HOUSEHOLD MEMBERS WHO ARE EMPLOYED.
Section 7	Q7.10	There is no block in the questionnaire to record the number of 'other' vehicles.	The description of the other motor vehicles that the household has for private use should be specified on the dotted line, and record the number thereof in the block provided.
Section 8	Q8.1	What should be done if only one problem or no problems are experienced?	If households experienced ONLY one problem, blocks for 'Problem 2' should be left blank. If the household did not experience ANY problems, record 88 in the blocks for 'Problem 1' and 'Problem 2'.
	Q8.6	What happens if there is only one reason for not using a passenger train?	If the respondent has ONLY one reason for not using a passenger train, leave the blocks for 'Reason 2' blank.
	Q8.9	What happens if there is only one reason for not using a passenger train?	If the respondent has ONLY one reason for not using a passenger train, leave the blocks for 'Reason 2' blank.
	Q8.10	This question has options 'a' to 'o', but NO blocks provided to record responses for option 'n'.	The whole space at the bottom below 'o' will be used by the fieldworker to record responses for 'n'.
	Q8.12	What happens if the respondent only has one reason for not using a mode of transport?	If the respondent has ONLY one reason for not using a specific mode of transport, e.g. a passenger train, leave the blocks for 'Reason 2' blank.
	Q8.13	This question has options 'a' to 'o', but NO blocks provided to record responses for option 'n'.	The whole space at the bottom below 'o' will be used by the fieldworker to record responses for 'n'.

During debriefing, some of the general comments about the questionnaire included that quality assurance prior to printing needs to be improved so that there is no need for an addendum. Generally, addendums are displaced easily. The use of leading zeros was confusing and had been applied inconsistently.

Normally, for household surveys, the sample is available well in advance of the survey and the unique number, PSU number and sampled dwelling unit (DU) number can be pre-printed on the questionnaires. However, since the first census results were released only at the end of October 2012 and a sampling frame based on the data only became available well into November, it was not possible to pre-print this information onto the questionnaires for NHTS 2013. This introduced some errors in the field which had to be resolved during data processing. It is advisable that all efforts be made to pre-print the sample information on the questionnaires for future surveys. Skips are needed for Q2.2 and Q4.9 for those who did not travel, and the incorrect skip instruction in Q5.1 needs to be corrected for future surveys.

In addition to the issues highlighted in Table 2.2, the following suggestions were made during the debriefing:

- Question E tended to be left blank by survey officers because it was not emphasised enough during training.
- ❖ In the case of Q1.1, a general guideline has to be provided as to what to do for children younger than 2 years.
- Section 8 does not make adequate provision for persons using private vehicles.

During the pilot survey it was decided to centralise coding of the Transport Analysis Zones (TAZs) where educational institutions, place of work, and destinations for business and other travel are located. However, it was found that fieldworkers did not provide detailed enough information to enable the coding to be done correctly, especially in metropolitan areas, where suburbs or subplace names were required. Future surveys should carefully consider both layout and training interventions to improve on this.

3. Sample design

3.1 Design of the sampling frame

During 2010, the Department of Transport contracted TRC Africa to update the NHTS 2003 TAZs according to the most recent boundaries of the Municipal Demarcation Board (MDB) for NHTS 2013. The findings and data of this assignment were presented in 2011 to the Department of Transport and Stats SA. These updated TAZ zones, in combination with the Census 2011 enumeration areas (EA) eventually formed the basis of the sampling frame that was developed.

This document describes how the sampling frame was derived from the Census 2011 database as well as the decision rules that were used to link the Transport Analysis Zones (TAZs) with the Census 2011 EAs.

Creation of TAZ EA link

The Geography division within Stats SA then set out to create a link between these TAZs and the enumeration areas as demarcated for Census 2011.

The biggest part of the linking process was automated, using the intersection method and ArcGIS 9.3 software.

The following datasets were used:

- 1. TAZ 2011 (as obtained from TRC Africa)
- 2. EA 2011
- 3. Dwelling frame
- 4. Imagery (aerial photo, SPOT 5)

The 80/20% decision rule was used. This means that all the polygons with areas greater than or equal to 80%, or less than or equal to 20% were to remain with the TAZ ID of greater than or equal to 80%. Areas between 20% and 80% were manually investigated and the TAZ ID was assigned based on dwelling unit (DU) distribution and the size of the TAZ. During this process the following rules were applied:

- 1. The EA with the most dwellings was assigned to the TAZ ID.
- 2. In the case of the same number of dwellings, the TAZ area/size was used (the biggest EA was assigned the TAZ ID).

Table 3.1 contains the analysis zone inconsistencies that were identified during the testing of the sampling frame. Two kinds of issues were identified, namely problems related to boundaries that were cut by a TAZ link, and situations where more than one municipality were included in one TAZ. In the case of the former, the situation was corrected manually by re-assigning the TAZ EA link so that the boundary was not violated. The only exception where no corrective action was taken, is the Kruger National Park, which has a low population and was not considered for sampling. These changes are reflected in the variable TAZ_ADJ in Version 2 of the sampling frame.

The TAZs that included more than one municipality did not represent examples of boundary violations. Given that one of the reporting domains is the municipality, it was decided to separate each municipality into its own TAZ. New codes were created for each 'new' TAZ, starting from the highest number already allocated within that province. These changes as well as the changes already described for the TAZ_ADJ variable above are contained in a new variable called TAZ_EXP.

Table 3.1: Analysis zones inconsistencies

				TAZs cutting across boundaries	More than one municipality in one TAZ
Province/district/ municipality/	PR_CODE	TAZ ID	EAs per TAZ	Resolution Move to existing TAZ_ID within correct geographical boundary	Resolution New ID
Eastern Cape	2	1045	362	Unchanged	T
KwaZulu-Natal	5	1045	1	4045	
Mpumalanga	8	5025	44	Kruger NP leave as is	
Limpopo	9	5025	10	Kruger NP leave as is	
Ешроро		3023	10	Triager IVI leave as is	
Chris Hani(DC13)	2	1045	362	Unchanged	Τ
eThekwini(ETH)	5	1045	1	4045	
City of	ŭ	1010	'	1010	
Johannesburg(JHB)	7	3000	1	3008	
West Rand(DC48)	7	3000	348	Unchanged	
Sisonke(DC43)	5	4001	268	Unchanged	
UMgungundlovu(DC22)	5	4001	6	4003	
Ehlanzeni(DC32)	8	5025	44	Kruger NP leave as is	
Vhembe(DC34)	9	5025	4	Kruger NP leave as is	
Makana	2	1001	173		1059
Ndlambe	2	1001	176		1060
Baviaans	2	1003	60		1061
Ikwezi	2	1003	43		1062
Camdeboo	2	1003	-		1062
Kou-Kamma	2	1005	92		1064
Kouga	2	1005	211		1065
Gariep	2	1017	100		1066
Maletswai	2	1017	113		1067
Inkwanca	2	1019	75		1068
Lukanji	2	1019	493		1069
eThekwini	5	1045	1	4045	
IntsikaYethu	5	1045	362	Unchanged	
City of Johannesburg	7	3000	1	3008	
Westonaria	7	3000	348	Unchanged	
Impendle	5	4001	6		4143
Kwa Sani	5	4001	35		4145
Impendle	5	4003	88		4143
uMngeni	5	4003	168		4144
The Msunduzi	5	4008	1	4019	
uMshwathi	5	4008	178	Unchanged	
Mkhambathini	5	4017	119	<u> </u>	4146
Richmond	5	4017	108		4147

				TAZs cutting across boundaries	More than one municipality in one TAZ
Province/district/ municipality/	PR_CODE	TAZ ID	EAs per TAZ	Resolution Move to existing TAZ_ID within correct geographical boundary	Resolution New ID
Hlabisa	5	4129	90		4148
The Big 5 False Bay	5	4129	55		4149
Dipaleseng	8	5004	88		5026
Lekwa	8	5004	225		5027
Ba-Phalaborwa	8	5025	5	Kruger NP leave as is	
Thulamela	8	5025	1	Kruger NP leave as is	
Ga-Segonyana	3	6000	192		6013
Gamagara	3	6000	79		6014
Joe Morolong	3	6000	275		6015
NamaKhoi	3	6001	141		6016
Richtersveld	3	6001	59		6017
Hantam	3	6002	167		6018
Khâi-Ma	3	6002	60		6019
Kamiesberg	3	6002			6031
Karoo Hoogland	3	6002			6032
Emthanjeni	3	6003	123		6020
Umsobomvu	3	6003	86		6021
Kareeberg	3	6004	47		6022
Thembelihle	3	6004	36		6023
Renosterberg	3	6004			6028
Siyathemba	3	6004			6029
Siyancuma	3	6004			6030
Khara Hais	3	6007	196		6024
Tsantsabane	3	6007	97		6025
Dikgatlong	3	6012	104		6026
Magareng	3	6012	50		6027
Musina	9	7011	125		7027
Mutale	9	7011	304		7028
Modimolle	9	7024	173		7029
Mookgopong	9	7024	106		7030
Lekwa-Teemane	6	8018	106		7031
Mamusa	6	8018	107		7032
Cape Agulhas	1	9013	109		9041
Swellendam	1	9013	81		9042
Hessequa	1	9014	180		9043
Kannaland	1	9014	59		9044
Bitou	1	9018	119		9045
Knysna	1	9018	172		9046
Beaufort West	1	9019	152		9047
Prince Albert	1	9019	60		9048

Once all EAs could be accurately associated with TAZs, a sampling frame consisting of primary sampling units (PSUs) was constructed. PSUs use EAs as their building blocks, and in most cases, one PSU is equal to an EA. However, for sampling purposes, small EAs were combined to form new PSUs and large EAs were conceptually split into smaller units.

3.2 Variable composition of the frame

The actual sampling frame was based on the Census 2011 data Version 10 and was analysed using SuperCross. The variables included in the frame were per EA:

- EA Code
- TAZ_ID: TAZ code
- Number of persons
- Number of households (defined as options 1 and 2 of H01 in the census questionnaire)
- Number of males and number of females
- ❖ Number of persons per each 5-year age category
- Number of persons per each population group category
- Number of people aged 15 to 64 years in each EA who fall into the following annual income categories: No income; R1–19 600; R19 601–38 200; R38 201–76 400; R76 401–153 800; R153 801–307 600; R307 601 PLUS

Subsequent to the revision, two more variables were added:

TAZ_ADJ – which contains corrected TAZ codes for boundary violations; and TAZ_EXP – which contains corrected TAZ codes for boundary violations as well as all municipalities that used to share a TAZ each with their own TAZ code.

3.3 EA and PSU sample

The NHTS 2013 sample is based on a stratified two-stage sample design with probability-proportional to size (PPS) sampling of PSUs from within strata at the first stage, and systematic sampling of dwelling units (DUs) from the sampled primary sampling units (PSUs) at the second stage. The sample population consisted of all non-institutionalised private dwellings and workers' hostels in the Republic of South Africa. Institutions and military quarters were excluded. In addition, EAs in the sparsely populated areas with very few dwelling units (number of DUs fewer than 25) were also excluded. Since the population in these sparsely populated areas is part of the target population, a weight adjustment factor was applied to account for the excluded population (see the subsequent subsection 3.6 on weighting).

3.3.1 Stratification and sample allocation to strata

Stratification was done on two levels; firstly explicit stratification based on the Travel Analysis Zones within the provinces, and then implicit stratification based on the Geographic Area Type (Urban, Traditional and Farms). These were primarily selected for their importance within a transport survey context, administrative convenience and flexibility, and also to ensure that the sample of PSUs is spread across all the categories of the stratification variable(s).

Considering the required sample size, square root allocation was used to allocate PSUs across strata based on the weighted DU count as measure of size. The procedure ensures that the allocation considers the size of the Travel Analysis Zones, i.e. the sample is redistributed from

larger Travel Analysis Zones to smaller Travel Analysis Zones to ensure efficient estimates at both national and Travel Analysis Zone levels. The specified sample was adjusted for 10% non-response which resulted in a national sample size of the required sample size plus 10%. The fact that on average 10 DUs were to be sampled per PSU, was also taken into consideration.

Prior to PSU sample selection, there were two constraints that needed to be satisfied for the flexibility of weighting and estimation processes:

- At least two PSUs are selected from the stratum; and
- The stratum must comprise an even number of PSUs.

This resulted in an expected sample of 5 034 PSUs across the strata. Since the PSU size has an impact on the sampling selection method, large PSUs were then conceptually split into manageable sized PSUs, based on the probability of selection of these PSUs.

3.3.2 Sampling of PSUs with probability proportional to size

A Randomised Probability Proportional to Size (RPPS) systematic sample of PSUs was drawn in each of the constructed strata, with the measure of size being the number of households in the PSU.

This method is described below:

Let N be the total number of PSUs in the stratum, and the number of PSUs to be selected from the stratum is denoted by n . Also, let x_i denote the size measure of the PSU i within the stratum, where $^i=1,2,3,...,N$. Then, the method for selecting the sample of n PSUs with the RPPS systematic sampling method can be described as follows:

Step 1: Randomise the PSUs within the stratum

The list of N PSUs within the stratum can be randomised by generating uniform random numbers between 0 and 1, and then by sorting the N PSUs in ascending or descending order of these random numbers. Once the PSUs have been randomised, we can generate permanent sequence numbers for the PSUs.

Step 2: Define normalised measures of size for the PSUs

We denote by x_i the measure of size (MOS) of PSU i within the design stratum. Then, the $X = \sum_{i=1}^N x_i$ measure of size for the stratum is given by $X = \sum_{i=1}^N x_i$. We define the normalised size measure $x_i = \sum_{i=1}^N x_i$ of PSU $x_i = \sum_{i=1}^N x_i$ where $x_i = \sum_{i=1}^N x_i$ is the total number of PSUs in the design stratum. Then, $x_i = \sum_{i=1}^N x_i$ for all strata. It should be noted that the value of $x_i = \sum_{i=1}^N x_i$ which is the selection probability of PSU $x_i = \sum_{i=1}^N x_i$ must be less than one.

Step 3: Obtain inverse sampling rates (ISRs)

Let $\it R$ be the stratum inverse sampling rate (ISR). The stratum ISR is the same as the corresponding provincial ISR because of the proportional allocation within the province. It should also be noted that the proportional allocation within the province also results in a self-weighting design.

Then, the PSU inverse sampling rates (ISRs) are obtained as follows:

First, define N real numbers $Z_i = n \times p_i \times R$; $i = 1, 2, 3, \dots, N$. It is easy to verify that $\sum_{i=1}^N Z_i = n \times R$. Next, round the N real numbers Z_i ; $i = 1, 2, 3, \dots, N$ to integer values R_i ; $i = 1, 2, 3, \dots, N$ such that each R_i is as close as possible to the corresponding R_i value and the R_i values add up to $n \times R$ within the stratum. In other words, the sum of the absolute differences between the R_i and the corresponding R_i values is minimised, subject to the constraint that the R_i values add up to $n \times R$ within the stratum. Drew, Choudhry and Gray (1978) provide a simple algorithm to obtain the integer R_i values as follows:

Let "d" be the difference between the value $n \times R$ and the sum $S = \sum_{i=1}^N [Z_i]$, where $[\cdot]$ is the integer function, then R_i values can be obtained by rounding up the "d" Z_i values with the largest fraction parts, and by rounding down the remaining N-d of them. It should be noted that the integer sizes R_i ; i=1,2,3,...,N are also the PSU inverse sampling rates (ISRs) for systematic sampling of dwelling units.

Step 4: Obtain cumulative ISR values

We denote by C_i ; i = 1, 2, 3, ..., N the cumulative ISRs of the PSUs within the stratum. It should be noted that the PSUs within the stratum have been sorted according to the sequence numbers that were assigned after the randomisation. Then, the cumulative ISRs are defined as follows:

$$C_1 = R_1,$$

 $C_i = C_{(i-1)} + R_i; \quad j = 2, 3, ---, N.$

It should be noted that the value C_N will be equal to $n \times R$, which is also the total number of systematic samples of dwelling units that can be selected from the stratum.

Step 5: Generate an integer random number r between 1 and R, and compute n integers r_1, r_2, \dots, r_n as follows:

Step 6: Select n PSUs out of the N PSUs in the stratum with the labels (sequence numbers) number $^{i_1, i_2, \dots, i_n}$ such that:

Then, the n PSUs with the labels $^{i_1,\,i_2,\,\ldots,\,i_n}$ would get selected with probabilities proportional to size, and the selection probability of the PSU i will be given by $^{R_i}/R$.

3.4 Listing verification

3.4.1 Introduction

As indicated in the previous section, the NHTS sampling frame was based on the Census 2011 EAs and population data. Census 2011 was also preceded by a listing process. However, this process used a different methodology than what is needed for household surveys. These differences and the fact that census listing was executed between August and September 2011, made it necessary to do listing verification prior to the finalisation of the NHTS 2013 sample.

The methodologists used the Census 2011 sampling frame to draw an initial sample of PSUs for the purpose of the NHTS, and these PSUs all had to be verified. Listing verification was primarily aimed at identifying new dwelling units that may have been constructed since 2011, as well as structures of which the use or function may have been changed since then. This information was then used to update and create a database of the number of dwelling units in each PSU so that sampling could be applied. Recruitment of contract workers took place in December 2012 when 267 listers and 52 supervisors were contracted. Listing verification training was then executed from 7 to 11 January 2013 in three locations, namely Cape Town, Gauteng and eThekwini.

Listing was conducted from 21 January until the end of February 2013. A team of Head Office monitors from Household Survey Operations and Census Field Operations covered all provinces for the duration of the listing exercise. The team constantly interacted with project management on all issues pertaining to listing.

3.4.2 Verification methodology

Listing verification was done on the original Census listing books in two phases. Firstly, EA verification was done, and during Phase 2, the actual listing entries were checked, corrected and/or amended where necessary.

Listing – HH3 entries Info to be verified to be completed Column-> В С D Ε F G K L M R T **EA** type Н J 1. Formal 2. Informal 3. Traditional 4. Farm 5. Collective (workers' hostels)

Phase 1 - EA verification

□ Required entry

6.Smallholdings

Phase 2 - Updating

Listing updates during verification

- 1. Name Change ->Scratch 'old' name; add 'new' name;
- 2. Structure Description Change -> Scratch 'old' description; add 'new';
- 3. Where there is missed DU(s) on the ground, you should:
 - Add the additional structure onto the last record on the HH3 form. The DU numbering will be continuous from the last DU number that was verified as mentioned above.
- 4. Where there are duplicates:
 - Structures recorded that were duplicated erase the entire record and in column T do not allocate a DU number.
 - Records duplicated erase the entire record and in column T do not allocate a DU number.
 - Comment on the HHQ form.
- 5. Structure not classified as DU, but has DU # ->Verify; if DU changes Feature Code, if not, erase DU #.
- 6. Structure classified as DU, but no DU # -> Verify; allocate a DU number in column T.
- 7. Growth -> Record structure from last record # , enter feature code, assign DU # if applicable from last DU #.
- 8. Missed DU -> Record structure from last record # , enter feature code, assign DU # from last DU #.

All corrections had to be made in pencil.

3.4.3 **DU frame**

The drawn sample with a total of 5 034 PSUs had to be verified across all provinces. The verification teams worked with the original copies of the census listing books where available. In the case of informal settlements, new listings had to be done, as the required listing methodologies were completely different from that needed for the census.

Listing and listing updates were based on the PSU sample frame and were done in all nine provinces between mid-January and mid-February 2013. The NHTS DU frame received from listing verification was in Excel format. The consolidated DU frame contained 5 038 records and 2 variables, namely Psuno (PSU number) and Total private dwelling units (Total Pds) per PSU. KwaZulu-Natal (KZN) province had four duplicated PSUs on the provisional frame. The duplicated PSUs were removed before DU sample selection and a final frame with 5 034 PSUs was used for sampling the DUs. The distribution of the PSUs that was sent to the field for listing verification and the PSUs received by methodology after listing verification are summarised in the Table 3.2 below.

Table 3.2: Distribution of the PSUs within provinces before and after verification

Province	Number of PSUs sampled (before verification)	Number of PSUs received from the field (after verification)
WC	570	570
EC	710	710
NC	206	206
FS	350	350
KZN	970	974 (extra 4, duplicates)
NW	390	390
GP	1028	1 028
MP	366	366
LP	444	444
National	5 034	5 038

Table 3.3 below illustrates the 22 PSUs which had DUs during Census 2011, but were reported as having no private dwellings during listing verification. Reasons for these changes include change of status of dwellings in areas such as, for example, the clearance of informal settlements for other developments, or permission to list was not granted and/or the area was too dangerous to enter. No sample was drawn from these PSUs.

Table 3.3: PSUs without private dwellings or inaccessible PSUs in the frame

Obs	EA_CODE	PSUNO	TOTALPDS
1	16110001	161100012	0
2	16910063	169100631	0
3	17610242	176102421	0
4	17710252	177102521	0
5	17910070	179100701	0
6	19912191	199121911	0
7	19912197	199121971	0
8	19914803	199148031	0
9	19915580	199155801	0
10	19915759	199157591	0
11	19916108	199161081	0
12	59911339	599113391	0
13	59913798	599137981	0
14	59914486	599144861	0
15	59914489	599144891	0
16	59914490	599144901	0
17	66210100	662101001	0
18	66510106	665101061	0
19	79710263	797102631	0
20	79814987	798149871	0
21	79913082	799130821	0
22	97410981	974109811	0

Once an updated measure of the number of private dwelling units and workers' hostels in each PSU was available, the final sample was selected. Section 3.5 provides more details about this process.

3.5 DU sample

After the selection of the PSUs and the construction of the dwelling unit frame, a procedure on the second stage of the sample design (which is the selection of dwelling units) was carried out. The number of DUs selected per PSU varied from PSU to PSU and depended on the Inverse Sampling Ratios (ISR) of each PSU. A sample of 5 034 primary sampling units was selected from the census dwelling frame, with stratification at TAZ and provincial levels. Twenty-two of these PSUs were vacant and 51 341 dwelling units (DUs) were sampled from the remaining 5 012 PSUs.

Table 3.4 summarises the sample distribution per province. The number of dwelling units sampled per PSU ranged from 1 to 14.

Table 3.4: Distribution of the sample

Province	Number of TAZs unadjusted	Number of TAZs adjusted	Number of PSUs	Average number of dwelling units per PSU	Total number of dwelling units
Western Cape	37	43	559	10	5 528
Eastern Cape	54	60	710	11	7 497
Northern Cape	13	29	206	10	2 103
Free State	30	30	350	10	3 601
KwaZulu-Natal	74	78	965	10	9 806
North West	27	28	388	9	3 628
Gauteng	58	58	1 025	10	10 683
Mpumalanga	25	26	366	10	3 794
Limpopo	26	28	443	11	4 701
RSA	344	380	5 012	10	51 341

3.6 Weighting

The sampling weights for the data collected from the sampled households were constructed so that the responses could be properly expanded to represent the entire civilian population of South Africa. The sampling weights, also called design weights, for the NHTS 2013 are the inverse sampling rate (ISR) for the TAZ and are assigned to each of the households in a TAZ.

The adjusted weights for the NHTS 2013 full sample were obtained by applying three adjustments to the design weights. The first adjustment was applied to account for PSU natural growth; the adjustment factors were truncated at the 99th percentile (which was 2.32432) in an attempt to minimise the sample variation. The second adjustment was applied to account for the EAs with fewer than 25 households excluded during the survey design, and the third was the non-response adjustment. There were two types of non-response adjustments: PSU non-response adjustment and household non-response adjustment. The PSU non-response adjustment was applied at stratum (TAZ) level, whereas the household non-response adjustment was applied at PSU level.

The final calibrated weights were constructed by calibrating (benchmarking) the adjusted design weights to the known population estimates as control totals using the 'Integrated Household Weighting' method. The lower bound of the calibrated weights was set equal to 50 when computing the calibrated weights with StatMx software.

The population estimates of mid-February 2013 were used for benchmarking. These estimates were produced by the Demographic Analysis division and were based on the mid-year population series published in 2013. The population estimates used were cross-classified by age group by race by gender population groups at national level, and by age groups at province level. The age groups at national level were the five-year age groups: 0–4, 5–9, 10–14, 15–19, 20–24, 25–29, 30–34, 35–39, 40–44, 45–49, 50–54, 55–59, 60–64, 65–69, 70–74, and 75 and over, and those at province level were the four broad age groups: 0–14, 15–34, 35–64, and 65 and over. The race categories were black African, coloured, Indian/Asian, and white. The calibrated weights were constructed such that all persons in a household would have the same final weight.

It is important to note that, since the calibrated weights were constructed using the known national and provincial level population estimates, this then posed limitations to the use of these weights:

- The lower level (any geographic level except province) estimates cannot be produced using the constructed weights; and
- 2. The weights can only produce meaningful aggregates at provincial and national levels.

4. Data collection

Data collection consisted of three phases: pre-enumeration, enumeration and post-enumeration, as depicted in Figure 4.1. The primary activities during pre-enumeration were planning, publicity, listing, quality assurance and training. The main purpose of publicity was to inform potential respondents and stakeholders of the upcoming survey and its purpose. This process was planned to be conducted a week before data collection commenced and was eventually implemented to run parallel with data collection, as it was deemed to be more time and cost-efficient. Posters, pamphlets and approach letters were used. The latter were given to gatekeepers, whilst the publicity pamphlets were distributed to selected dwelling units informing respondents about the purpose and objectives of the survey. During this phase, appointments were also arranged with households who could not be interviewed at the time that publicity was conducted.

Data collection training was divided into two phases: national and provincial. Different modules (competencies) were covered during training, which included, amongst others:

- Map reading and PSU/DU identification
- Listing verification
- Publicity procedures
- Questionnaire completion
- Quality assurance
- Progress reporting

Figure 4.1: Phases of data collection

PRE-ENUMERATION
Planning
Publicity
Listing
Quality assurance
Forward logistics
Training

ENUMERATION
Publicity
Completion of
questionnaires
Quality assurance
Capturing

POST-ENUMERATION Reverse logistics Data processing Analysis Compilation of metadata Data and report dissemination National training was executed from 28 January to 01 February 2013 in Pretoria and was attended by 65 trainers representing all nine provinces. They were responsible for provincial training which took place from 5 to 10 February 2013. Each training venue had sub-training venues, comprising 40 to 50 trainees per venue.

Different quality measures were utilised to assess the understanding and competency of the trainees. The following measures were used:

- Evaluation exercises
- Role play
- Group discussions and feedback
- Field practice (questionnaire completion exercise)

Data collection took place from 18 February to 20 March 2013. The data collection structure consisted of four levels, as summarised in Table 4.1.

A number of quality assurance procedures were implemented by different survey teams. The process was conducted by provincial Quality Assurers (QAs), Head Office Quality Assurers, Fieldwork Coordinators (FWCs)/District Survey Coordinators (DSCs) and District Managers (DMs) in certain districts. The main role of the quality assurance team was to check the quality of all questionnaires and verify non-responses. The roles of Quality Assurers were highlighted in the QA manual with all the reporting forms attached and explained.

The following were the key roles of Quality Assurers:

- Checking that the correct PSUs and dwelling units have been visited.
- Checking that survey instruments are correctly completed.
- Checking that fieldwork procedures are correctly followed, including ensuring the confidentiality of completed survey instruments.
- Support by sharing information about the problems encountered by other field teams and solutions that they adopted to avoid recurrence of similar situations, and giving feedback to other members of the field team on issues that concern them.
- Checking that all other survey related documents are correctly completed, including administrative documents.
- Reinforcing the training of field staff and retraining if the need arises during fieldwork.

Table 4.1: Data collection staffing framework with roles and responsibilities

Level	Responsibilities
Provincial Survey Coordinator (PSC)	The Provincial Survey Coordinator is responsible for the administration and management of NHTS activities at provincial level.
Fieldwork Coordinator (FWC)	The Fieldwork Coordinator reports to the Provincial Survey Coordinator for NHTS-related content matters, and to the District Manager on administrative matters. He/she is also in charge of the overall administration, management and implementation of NHTS activities at district level.
Fieldwork Supervisor (FWS)	The Fieldwork Supervisor reports to the District Survey Coordinator and is responsible for the supervision of the publicity, listing and enumeration processes. The Fieldwork Supervisor will be in charge of approximately four Fieldworkers specifically assigned under his/her supervision.
Fieldworker (FW)	The Fieldworker is responsible for publicity, listing and enumeration in the assigned EA.

Copies of job descriptions of the contract workers can be found in Annexure B.

As can be seen in Table 4.2, a total of 800 Fieldworkers, 267 Supervisors and 52 District Fieldwork Coordinators were contracted for the survey. Their numbers and distribution per province were primarily determined by the distribution of the sampled dwelling units.

Table 4.2: Contract fieldwork force

Province	No of Fieldworkers	No. of Supervisors	No. of Fieldworker Coordinators
Western Cape	79	26	8
Eastern cape	46	15	5
Northern Cape	211	70	5
Free State	159	53	11
KwaZulu-Natal	59	20	5
North West	54	18	3
Gauteng	65	22	4
Mpumalanga	30	10	5
Limpopo	97	33	6
RSA	800	267	52

The number of people found in a particular household and their travel patterns influenced the amount of time needed to complete a questionnaire. On average, most interviews took between thirty and sixty minutes to complete. Several PSUs in KwaZulu-Natal and Gauteng had problems related to service delivery protests and instability, which made it difficult for the enumerators to work in those areas.

5. Data collection debriefing

The NHTS debriefing sessions were held at provincial and national levels. The national debriefing took place on 03 April 2013 in Pretoria. Three general recommendations emerged from this session. Firstly, that provincial staff be part of project planning; secondly, that it is necessary to decentralise some logistical arrangements to district level; and thirdly, that the project log template should be used to communicate quality issues. More specific successes and shortcomings are summarised in subsequent sections.

5.1 Planning (survey methodology and sampling)

5.1.1 Successes

- ❖ The involvement of the provincial and district office staff during the planning stage gave districts the power to be part of the decision-making process.
- ❖ Decentralisation of signing powers on certain budget items to provinces made the logistical processes run much smoother.
- ❖ The budget allocated for the project was sufficient to cover the requirements.

5.1.2 Shortcomings

- The decision to pay field staff the equivalent of the census stipend led to challenges in the field as staff was demoralised by the big differences between their salaries and that of the permanent staff.
- ❖ The work plans submitted by the provincial staff were not considered in certain cases, leading to shortfalls in planning.
- The timelines allocated for field operations were too short.
- The workload for the Fieldwork Coordinators (FWCs) was unrealistic when compared with the number of staff under their supervision, i.e. each coordinating 8 Fieldwork Supervisors (FWSs) and 38 Fieldworkers (FWs).
- ❖ Terrain conditions were not adequately considered when vehicle allocations were done, and some inaccessible areas initially did not have adequate transportation means.

5.1.3 Changes made to baseline plan/scope

District office staff had to resort to pairing NHTS staff with staff involved in other surveys where the following issues arose:

- Lack of maps;
- Vehicles not suitable for terrain; and/or
- Extensive publicity done at gatekeeper level.

5.1.4 Recommendations

- Field staff should not be paid on a stipend method.
- There should be frequent project review meetings.
- Sufficient time should be allocated to the project to execute all the required processes.

5.2 Recruitment

5.2.1 Successes

- ❖ Decentralisation of the recruitment process to provinces and support for recruitment from provincial Human Resources (HR).
- Recruiting from the Census 2011 database made the process smoother.

5.2.2 Shortcomings

- Recruitment period (December) was not ideal.
- Recruiting without sample analysis.
- Ratio of FWC: FWS: FW was unrealistic.
- ❖ Absence of the supervisor layer during verification resulted in quality issues.
- Appointment of FWSs before training.
- Lack of appointment of the Survey Administrator.

5.2.3 Changes made to baseline plan/scope

- Some of the recruited supervisors did not have a driver's licence, in spite of this being included as one of the criteria for recruitment.
- In some provinces, the contracts were administered by the District Office Administrators (DOAs).

5.2.4 Recommendations

Training results should be used for the final appointment of field staff.

5.3 Geography and listing

5.3.1 Successes

- Summary books were made available on time.
- Screening of the 'out-of-scope' structures minimised the duration of the verification process.
- Integrating field operations with the other survey staff members assisted with the listing verification process.

5.3.2 Shortcomings

- Time frame allocated for listing verification was not sufficient.
- Not all summary books were received by provinces.
- Utilisation of the census listings compromised quality.
- Most listings did not have maps attached.
- In some cases there was an incorrect report/indication of the total number of occupied dwelling units (DUs), leading to re-sampling.

5.3.3 Changes made to baseline plan/scope

- ❖ A number of enumeration areas (EAs) had to be re-listed since DUs could not be identified.
- ❖ In some cases, listing and verification was conducted in the office since access was denied in some high-walled areas, leading to unverified DU totals given.

5.3.4 Recommendations

- At least a month should be allocated for listing verification (if it is to be done).
- Listing needs to be conducted from scratch for projects such as the NHTS.

5.4 Training

5.4.1 Successes

- Conducting training at provincial level allowed for proper logistics arrangements.
- Training material was supplied on time.
- Facilitators knew and understood the training content.
- Trainees were allowed active participation, and feedback was given daily.

5.4.2 Shortcomings

- In some cases, training venues were too small to accommodate all trainees comfortably (GP).
- Training material had a lot of addendums.
- ❖ The evaluation exercises had too many open-ended questions, which were timeconsuming to complete and mark.
- ❖ Field exercise was not sufficient for proper questionnaire completion practice.

5.4.3 Changes made to baseline plan/scope

- In some cases, the trainees who had dropped out during training could not be replaced.
- Some trainees who could not achieve the expected pass rate were recruited after being retrained since the exact number of recruits were trained and there were no replacements available.

5.4.4 Recommendations

Training duration should be at least two weeks to accommodate a sufficient questionnaire completion exercise.

5.5 Publicity

5.5.1 Successes

- Publicity material was received on time.
- Assistance by other survey staff with gatekeeper publicity reduced refusals.

5.5.2 Shortcomings

- Time frame allocated for publicity was too short.
- ❖ Non-translation of pamphlets to other languages led to difficulties, especially in Afrikaans-speaking areas.
- ❖ Incorrect contact numbers indicated on some publicity documents resulted in refusals.
- ❖ A lack of information on the posters reduced the impact on the community and, in some cases, resulted in their being removed by community members.

5.5.3 Changes made to baseline plan/scope

- Publicity was conducted at the same time as data collection due to the short publicity timeframe.
- Publicity was not conducted in some DUs due to the short publicity timeframe.

5.5.4 Recommendations

- ❖ A separate team of publicity officers should be appointed to conduct publicity, a month before data collection takes place.
- Corporate Communications should assist with high-level publicity (print, visual, vocal, etc.) to decrease the high refusal rate in difficult areas.

5.6 Data collection

5.6.1 Successes

- Questionnaires and vehicles were received on time.
- Primary sampling unit (PSU) identification went smoothly with the assistance from other survey staff.
- Conducting spot-checks and retraining on the ground helped with the improvement of data quality.
- ❖ The sweeping method used for collection assisted in sample execution.
- Daily submission of reports assisted with quality assurance.
- Utilisation of guides in difficult areas was helpful (GP).

5.6.2 Shortcomings

- ❖ Insufficient time allocated for revisits in the case of non-contacts.
- Incorrect DU counts on some of the listings led to delays in data collection because of the need to resample, whilst already in the field.
- The completion of questionnaires using pens contributed to high error rates and untidy questionnaires; in some cases questionnaires had to be replaced and rewritten completely.
- There is a shortage of monitors to cover all areas.

5.6.3 Changes made to baseline plan/scope

- Some FWCs and District Managers had to do some of the follow-up visits of the noncontacts due to the workload and short time frame available for data collection.
- Other survey staff, e.g. dwelling frame, were used to conduct fieldwork due to the resignation of contract NHTS staff.

5.6.4 Recommendations

- Allocate at least a monitor for each and every district.
- More emphasis should be placed on the questionnaire completion exercise/practice to minimise the error rate on questionnaire completion using pens.

5.7 Logistics

5.7.1 Successes

- Conducting driving tests for drivers before fieldwork is undertaken.
- Sufficient allocation of vehicles.
- Field material available on time.
- Allocation of petrol funds whilst awaiting petrol cards.
- Petrol cards received on time.
- Accommodation provided for teams that had to travel long distances to their working areas.
- Collection of material (reverse logistics) from a central point minimised a lot of risks.

5.7.2 Shortcomings

- Late/non-loading of airtime for field staff.
- Delivery of vehicles in areas that were too far by service providers (NW).
- Faulty vehicles received from service providers (EC).
- Ever-changing of the reporting templates.
- Allocation of one data capturer per province and sharing them with other surveys was insufficient.

5.7.3 Changes made to baseline plan/scope

- Field staff used own or permanent staff's airtime to make calls to respondents and for reporting.
- Overloaded vehicles unable to accommodate staff and materials.
- Walking in areas where vehicles could not reach.

5.7.4 Recommendations

- Decentralise airtime loading to provinces.
- Include provincial and district staff on logistics planning.
- ❖ Hire correct/sufficient size of vehicles for field, considering the terrain.
- Include provincial staff contact details on communication tools.

6. Response rates and measures of quality

There was one household record that was from a PSU not found in the sample. The record was from PSU '798153240' which was incorrectly coded and it was excluded from the household file. Further, three household records with no sampled dwelling units (DUs) were excluded. There were 437 sampled DUs that were not enumerated, these records were added onto the household file as non-responding households with the assumption that each DU contained a single household. Ultimately the household file contained 52 762 records. Table 6.1 shows the distribution of the response codes in the household file.

The mapping of the 'final result' to the three response status categories is provided in Table 6.1, where response code 1 = Respondent, 2 = Non-respondent, and 3 = Out-of-scope. The table also shows the percentage of households in each category.

Table 6.1: Response code categories and percentage of households in each category

Response code	Label	Frequency	Per cent	Cumulative frequency	Cumulative per cent
1	Response	43 462	82,37	43 462	82,37
2	Non-response	5 314	10,07	48 776	92,45
3	Out-of-scope	3 986	7,55	52 762	100,00

For the purpose of weighting, the out-of-scope households were excluded from the final household file. That is, the final household file used for weighting contained 48 776 eligible household records.

Table 6.2 summarises the response rates obtained nationally and in each province. The national response rate of 89,1% is higher than that of the NHTS 2003, which was 86,6%. This increase has been noted in spite of a general decrease in response rates for household surveys noted over the same time period.

Table 6.2: National and provincial response rates

Province	NHTS 2013
Western Cape	85,1
Eastern Cape	90,4
Northern Cape	91,5
Free State	90,4
KwaZulu-Natal	90,3
North West	92,8
Gauteng	85,7
Mpumalanga	88,4
Limpopo	92,7
RSA	89,1

Table 6.3: Slippage rates

Province	Design weight	Final calibrated weight	Slippage rate					
Slippage rates by	province							
National	44678089,09	52714819,33	15,2457					
Western Cape	5022957,76	5974389,27	15,9252					
Eastern Cape	5655879,50	6607118,13	14,3972					
Northern Cape	1023673,37	1159217,17	11,6927					
Free State	2420953,94	2751344,46	12,0083					
KwaZulu-Natal	8747042,82	10414946,60	16,0145					
North West	2840203,64	3578424,18	20,6298					
Gauteng	10786543,78	12628445,62	14,5853					
Mpumalanga	3392393,91	4107903,11	17,4179					
Limpopo	4788440,36	5493030,79	12,8270					
Slippage rates by	race	<u>'</u>						
National	44678089,09	52714819,33	15,2457					
Black African	35654392,43	42035260,57	15,1798					
Coloured	4108842,35	4747365,90	13,4501					
Indian/Asian	1146995,28	1322563,30	13,2748					
White	3767859,04	4609629,57	18,2611					
Slippage rates by	age and sex							
Total male	21283534,88	25683416,91	17,1312					
0–14	6707976,22	7761753,43	13,5765					
15–34	7736601,77	9713757,41	20,3542					
35–64	5723052,06	7248021,32	21,0398					
65+	1115904,82	959884,75	-16,254					
Total female	23394554,21	27031402,43	13,4542					
0–14	6612202,74	7694889,71	14,0702					
15–34	8000681,19	9569053,66	16,39					
35–64	7002690,82	8027062,65	12,7615					
65+	1778979,46	1740396,41	-2,2169					
Total national	44678089,09	52714819,33	15,2457					
0–14	13320178,96	15456643,13	13,8223					
15–34	15737282,96	19282811,07	18,387					
35–64	12725742,88	15275083,97	16,6895					
65+	2894884,28	2700281,16	-7,2068					

7. Limitations of the study

The sample design is such that households and individuals who live in institutions such as boarding houses, residential hotels, military barracks and hospital accommodation were excluded from the sample. The study was executed within a limited time frame and with contract survey officers. Training had to start after the December holidays and fieldwork had to be completed before travel patterns changed for the Easter school holidays at the end of March. Given that the Stats SA provincial offices are occupied with other surveys throughout the course of the year, executing an ad hoc survey – albeit with contract workers – placed additional strain on their organisational skills. Even though care was taken to train the survey officers and monitor the implementation of the survey, its sheer scope made it difficult to ensure that the survey was implemented in exactly the same way in all districts. A number of questionnaire printing errors resulted in an addendum being distributed during training in order for errors to be corrected. This may also not have been applied consistently across all provinces.

8. Comparability with previous surveys

Even though the importance of maintaining a time series was recognised, advances in technology and questionnaire design, as well as the need to reduce respondent burden made it necessary to modify some of the questions in the 2013 questionnaire. Since the last survey was executed in 2003, it was decided to build a new time series with the survey being done at five-year intervals using the 2013 questionnaire as the base. Where possible, analysis did refer back to 2003. However, if the comparisons were not completely valid, explanatory notes on differences are also provided. A comparative analysis of the questions contained in the 2003 and 2013 questionnaires is contained in Annexure B.

Annexure A: Questionnaire



National Household Travel Survey 2013

A: Particulars of the dwel	ling	UQ N	No																						
A1: PSU Number		D1:	Tr	ave	el d	ay																			
A2: Assignment number		D2	: Sı	ırve	еу	per	iod												1			2	0	1	3
A3: Dwelling unit number				sit o.	Dat d	e act		m	ı y	у	у		Resu	lt Code	d		Next ' m					у			
A4: Physical ID of the dwelling unit/ hous	ehold		1	l																					
			2	2																					
			3	3																					
			4	1																					
A5: Telephone number of enumerated ho	E2: F	E2: Final result code E4:Taz Code																							
A6: Total number of persons in househol	E3: 0	E3: Comments and full details for result codes 12-34																							
A7: Questionnaire number of this house	nold																								
B: Households at the sele	ected dwelling unit																								
B1: Household number for this househol	d																								
B2: Total Number of households at selec	ted dwelling unit																								
C: Field staff																									
C1: Field worker name	Persal number	d	d	m	m	у	у	у	у																
												Result codes 11 Completed 33 Demolished													
C2: Field work supervisor name	Persal number	d	d	m	m	У	у	у	У			-	_	Partly		leted			34	Ne	w dv	elling/	unde	r	
OZ. I lola Work Supervisor Harris												-	_	Non-c	ontact	:				cor	nstru	ction			
oz. Flora Work Supervisor Hame																									
C3: Field work coordinator name	Persal number	d	d	m	m	У	у	У	у				_	Refus											

Aim and use of the survey

The National Household Travel Survey will provide information to help the National Department of Transport (NDOT) to understand how and why people travel and to gain strategic insight into the transport problems and travel patterns of people of South Africa. The aim of the survey is to understand the transport needs and behaviour of households at all times of the day, to assess the effectiveness of the existing public transport subsidy mechanism, to assess attitudes towards transport services and transport facilities and to ascertain the cost of transport and assess level of affordability.

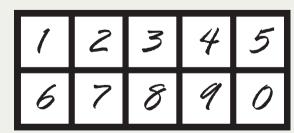
Write figures very carefully

Close the zeros (0) so that they will **not** be mistaken for the sixes (6).

When there is more than one zero (0), as for instance in the value 1 000, do **no**t connect the zeros on top, which is very common. Don't write the figures sideways or diagonally.

Never use decimal points (or decimal commas).

Your figures should be made like this:



Your crosses should **not** touch the sides:



FLAP This section covers particulars of each person in the household

The following information must be obtained for every person who is considered to be a member of the household.
Oo not forget babies. If there are more than 10 persons in the household, use a second questionnaire.

	h	h	m	m	
INTERVIEW START TIME					1

					F	Person (respo	ndent) number				
		01	02	03	04	05	06	07	08	09	10
A	First name and surname Write down first name and surname of each member of the household, starting with the head or acting head. If more than one head or acting head take the oldest										
	Surname:										
В	Has stayed here (in this household) for at least four nights on average per week during the last four weeks?										
	1 = Yes 2 = No — End of interview for this person	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
С	ls a male or a female? 1 = Male 2 = Female	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2

		01		02		(03		0	4		05			06			07			(08		09			10	0
What is's date of birth and age in completed years?																												
Day of Birth: Example of day 05	d	d	d	d		d	d		d	d	d	d d		C		d		d	d		d	d	C	1	d		d	d
Month of birth: Example of month 1 1	m	m	m	m		m	m		m	m	m	n m		m	n r	n	ı	m	m		m	m	m	1 (m	r	m	m
	уу	у у у	УУ	y y	У	у у	уу	/ у	У	у у	уу	у у	у	У	y :	у у	У	у	у у	У	у	у у	у	y	у у	у	у	у
Year of birth: Example of year 2007																												
Age in years Less than one year = 0																												
What population group does belong to?																												
1 = Black African		1		1			1			1		1	l			1			1			1			1			1
2 = Coloured		2		2			2			2		2				2			2			2			2			2
3 = Indian/Asian		3		3			3			3		3				3			3			3			3			3
4 = White 5 = Other (specify in box below)		4 5		4 5			4 5			4 5		5				4 5			4 5			4 5			4 5			5
5 - Other (specify in box below)		5		5			5			5			,			5			5			5			5			,

2

10	← Ø	Yes No 1 1 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 1 1 2 1 1 2 1 1 1 1 2 1	
60	F 0	Yes No 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 1 2 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1	
80	- 0	Yes No 1 1 2 2 1 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3	
20	- 0	Yes No 1 1 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
90	F 0	Yes No 1 1 1 2 2 2	
05	F 0	Yes No 1 1 1 2 2 2	
04	F 8	Yes No 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
03	r 0	Yes No 1 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 2 1 2	
02	P 0	Yes No 1 1 2 2 1 2 2 1 2 2 2 1 2 2 2 1 2 2 2 2 2 1 2	■ Go to A
10	- a	Yes No 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	γes N
	Doeshave a driver's licence? For persons who are aged 15 years and less should answer "No". 1 = Yes 2 = No → Go to H	Does have a driver's licence for a? Read all options. 1 = Motorcycle (Code A1, A) 2 = Car (Code B, EB) 3 = Heavy vehicle (Code C, C1, EC, EC1)	Is there any other person residing in this household, other than those already mentioned, who is <u>not</u> presently here?
	ш	O	I

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Section 1: Household characteristics		
1: Household (L FUNCTIONING	
Section	GENERAL F	

		01		02		03		8		02		90		07		08		60		10
. .	Does have difficulty in doing any of the following? Read all the options; use the codes below to indicate the degree of problems:																			
	a = Seeing (even with glasses if he/she wears them)		а		a		Ø	В		σ		Т		Т		m		В		Ф
	b = Hearing (even with a hearing aid, if he/she wears one) c = Walking a kilometer or climbing a flight		Q		Q		q	q	6	Ω		٥		Q		۵		٩		q
	of steps d = Remembering and concentrating e = With self-care, such as washing or dressing		υ		O		υ	O	0	O		O		O		υ		O		O
	f = In communicating in his/her usual language including sign language (understanding others and being understood by others)		σ		p		σ	ס	7	ס		σ		σ		σ		σ		σ
	CODES 1 = No difficulty		Φ		Φ		Φ	Φ	0	Φ		Φ		Φ		Φ		Φ		Φ
	2 = Some difficulty 3 = A lot of difficulty 4 = Unable to do		4 -		L		1	4		4		4-		-		-		4 -		4-
	5 = Do not know 6 = Cannot yet be determined																			
1.2	Does use any of the following?	Yes	S S	Yes	ν 9	Yes	٠ 8	Yes	2	Yes No		Yes No	Yes	No Se	Yes	Š	Yes	8	Yes	N _o
	1 = Eve glasses/spectacles/contact lenses	~	2	_	2	_	2	_	7	-	7	_	2	_	2		2	1		
	2 = Hearing aid	~	7	_	2	_	7	~	2	~	2	_	2		2			1	_	2
	3 = Walking stick/walking frame	~	7	_	2	_	7	~	7	_	7	_	2	_	2			1 2		
	4 = A wheelchair	~	7	_	2	_	7	~	7	_	2	~	2		2			1		
	5 = Chronic medication	~	7	_	2	_	2	~	2	-	2	~	2		7			1	_	
	6 = Crutches	~	7	_	2	_	2	_	2	_	2	_	2	_	7			1	_	
	7 = Guide dogs/ assistance dogs	~	7	_	2	_	2	~	7	_	2	~	2		7		. 2	1	_	
	8 = Personal assistant	_	7	7	2	_	2	~	2	-	2	~	2	_	7		01	1		
	9 = Other assistive devices	_	7	_	2	_	2	~	2	_	2	~	2		7			1		

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SOCIAL GRANTS AND SOCIAL RELIEF READ OUT: I AM NOW GOING TO ASK ABOUT THE USE OF SOCIAL GRANTS AND SOCIAL RELIEF

	10		- 2 0	m		N _o	2	2	7	2	2	2	7	N
						Yes	_	_	~	_	~	_	~	-
	0		- 0 0	'n		No No	2	2	2	2	2	2	7	0
	60					Yes	_	_	_	_	_	_	_	~
	m		- 2 0	n		N _o	2	2	2	2	2	2	2	7
	08					Yes	_	_	_	_	_	_	_	-
	_		- 0 0	'n		No No	7	2	7	2	7	7	7	0
	07					Yes	_	_	~	~	~	~	~	
	10		- 0 0	n		<u>8</u>	7	7	7	7	7	7	7	0
	90					Yes	_	_	_	_	_	_	_	7-
RELI		,	- 0 0	n		°N	2	2	2	2	2	2	7	0
CIAL	02					Yes	_	_	_	_	_	_	_	~
D SO			- 0 0	~		<u>8</u>	2	2	7	2	7	7	7	0
CIAL GRANTS AND SOCIAL REI	04					Yes	_	_	_	_	~	_	~	_
ZANT			- 0 0	~		o N	2	2	2	2	2	2	7	0
4L GI	03					Yes	_	_	_	_	~	_	_	-
			- 0 0	~		N _o	7	7	7	7	7	7	7	N
0F	02					Yes	_	_	_	_	_	_	_	~
E USE			_ 0. 6	~		S S	2	2	7	2	7	2	7	2
Ĭ	6		- 0 0	.v		Yes	~	~	~	~	~	~	~	-
READ OUT: I AM NOW GOING TO ASK ABOUT THE USE OF SO		3 Does anyone in this household receive a social grant, a pension or social relief assistance from the Government? Exclude those persons who receive a pension from previous employment.	1 = Yes 2 = No Go to Section2	†	who qualified for the grant and NOT for the person who qualified for the grant and NOT for the person who applied on behalf of/physically receives the money. Someone who used to work for the Government and receives a pension does not get an old age grant	Read all the options	1 = Old-age grant (60-74;R1200; 75+; R1220)	2 = Disability grant (<60;R1200)	3 = Child support grant (0-16;R280)	4 = Care dependency grant (0-17;R1200)	5 = Foster child grant (<22; R770)	6 = War veterans grant (60+; R1220)	7 = Grant-in-aid (R250 and should have another grant)	8 = Social relief of distress
Ę		7.3			4.									

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	2.1								2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2
	On which days doesusually travel/ leave the house? e.g. going to work, school, visiting friends/ relatives or going to the shops. Read all.	1 = Monday	2 = Tuesday	3 = Wednesday	4 = Thursday	5 = Friday	6 = Saturday	7 = Sunday	Didtake any trip/travel in the last seven days? e.g. going to work, school, visiting friends/ relatives or going to the shops. 1 = Yes 2 = No 3 = Do not know
10	Yes	1	1	-	1	1	1 2	1	F 0 0
02	Yes	_	_	_	_	_	7	_	
	≻ 8	2	7	2	2	2	7	7	7 0 C
03	Yes No	1	1 2	1 2	1 2	1 2	1	1 2	F 0 0
04	Yes	~	~	_	~	~	~	~	F 0 m
	Yes	2	2	2	2	2	2	2	
02	o N s	1	1 2	1 2	1 2	1 2	1	1	⊢ ⋈ ⋒
0	Yes	_	_	_	~	~	_	-	
90	S S	2	2	2	2	2	2	7	- α α
07	Xes X	_	-	_	7	_	7	_	← α ω
	٠ 9	7	7	2	7	7	7	7	_ a. m
80	Yes No	_	_	_	_	_	_	~	← 0 m
		7	2	2	7	7	2	7	
60	Yes No	_	_	_	_	_	_	_	← 0 m
	Kes	7	01	01	01	01	7	01	

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What is the main reason why did not make any trips/travel in the last seven days? Write only ONE response 01 = Did not need to travel 02 = Financial reasons (Not enough money) 03 = Not well enough to travel/sick 04 = Too expensive 05 = Not enough time to travel 06 = Usual transport not available 07 = No available public transport 08 = Disabled: transport inaccessible 10 = Too old/young to travel 11 = Worried about safety/security/crime 12 = No interest/Nothing to see or do that appeals to me 13 = Taking care of children/sick/elderly relative 14 = No particular reason 15 = Transport strike 16 = Other, Specify

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10 Sun 7 60 Sat 6 80 Fri 07 Thu 4 90 Wed 05 Tue 04 Mon Travel Day 03 02

Thinking about the travel day, how many trips did make to the following? Read out all options Complete with a single zero in case of no trip. 10 = Usual work place 10 = In the course of work/business 10 = Visiting friends/relatives 10 = Shops 10 = Shops 10 = Looking for work 10 = Welfare offices 11 = Church 12 = Home 13 = Other, specify	
Thinking about the tramany trips did mak following? Read out all Complete with a single Complete with a single 101 = Usual work place 102 = In the course of work 103 = Visiting friends/relic 104 = To take someone of 105 = Educational institut 106 = Shops 107 = Looking for work 108 = Medical services 109 = Traditional healer 110 = Welfare offices 111 = Church 112 = Home 113 = Other, specify	

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		01	02	03	04	90	90	07	80	60	10
On the t	On the travel day, which modes of travel were used and also specify how many times 01 = Train (Metrorail)	nd also specify	how many tim	S							
0	02 = Long distance train/Shosholoza										
0	03 = Bus										
0	04 = BRT bus/IRT bus										
0	05 = Metered taxi										
0	06 = Commuter/short-distance/ local minibus taxi										
0	07 = Long-distance minibus taxi										
0	08 = Sedan taxi/ four plus one										
0	09 = Bakkie taxi/ tambai										
_	10 = Car/ Bakkie passenger										
_	11 = Car/ Bakkie driver										
_	12 = Truck/Lorry/tractor/trailer passenger										
~	13 = Truck/Lorry tractor/trailer driver										
~	14 = Company vehicle										
~	15 = Scooter/motorcycle										
~	16 = Bicycle										
~	17 = Animal drawn transport/vehicle										
~	18 = Boat/ ship										
_	19 = Aircraft										
(4	20 = Gautrain										
(4	21 = Walking all the way → Go to Q2.6										
7	22 = Other (specify)										

If option 21, continue with the questions, otherwise, Go to Section 3.

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What is the main reason why waited all the way to ther destination? What is the main reason why waited all the way to ther destination? Write only ONE response to 1 = 1 was by choice or 2 = bolic transport or 2 = bolic transport or 3 = No available public transport or 3 = No available publi
2

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PATTERNS
TRAVEL
LATED
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AND EDUC
JCATION A
N 3: EDL
SECTIO

10	
60	
80	
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04	
03	
02	
10	
	what is the highest level of education that has successfully completed? Diplomas or certificates must be of six months plus study duration full-time (or equivalent) to be included 98 = No schooling 00 = Grade R/0 01 = Grade 1/ Sub A/Class 1 02 = Grade 2 / Sub B/Class 2 03 = Grade 3/Standard 4/ Standard 3/ ABET 2 05 = Grade 5/ Standard 4/ Standard 5/ ABET 2 06 = Grade 6/Standard 5/ ABET 3 08 = Grade 6/Standard 10/Form 2/ ABET 4 07 = Grade 5/ Standard 8/ Form 4 10 = Grade 12/Standard 10/Form 5/Matric (Ro Exemption) 13 = Grade 12/Standard 10/Form 5/Matric (Ro Exemption) 13 = Grade 12/Standard 10/Form 5/Matric (Bo Exemption) 14 = NTC 2/ N2/ NC (V) Level 2 15 = NTC 2/ N2/ NC (V)/Level 4 17 = NTC 2/ N2/ NC (V)/Level 4 18 = N5/NTC 5 19 = N6/NTC 5 19 = N6/NTC 6 20 = Certificate with less than Grade 12/Std 10 21 = Diploma with Grade 12/Std 10 22 = Certificate with Grade 12/Std 10 23 = Diploma with Grade 12/Std 10 24 = Higher Diploma (Technikon/University of Technology) 25 = Post Higher Diploma (Technikon/University of Technology Masters, Doctoral) 26 = Bachelors Degree 27 = Bachelors Degree 28 = Honours Degree 29 = Higher degree (Masters, Doctorate) 31 = Do not know
	3.7

10	<i>⊢</i> α α		← Ø
60	- 0 m		F 2
80	← α m		F 0
07	6 2 6		7 7
90	F 0 6		F 8
90	F 8 8		7 7
04	F 8 8		7 7
03	F 0 6		F 8
02	F 0 6		F 8
01	← 0 0		F 0
	Iscurrently attending any educational institution? e.g. school, technical university, university, college, home school, pre-school, crèche, day care, distance/correspondence education. 1 = Yes 2 = No 3 = Do not know Go to Section 4	Which of the following educational institutions doesattend? Read all the options, if more than one record the MAIN institution 1 = Pre-school (including day care, crèche, pre-primary, ECD centre, nursery school) 2 = School (including Grade R/Grade 0 learners who attend a formal school)/ (Grade 0 - Grade 12) 3 = Adult Basic Education and Training Learning Centre (ABET Centre) 4 = Literacy classes (e.g. Kha Ri Gude) 5 = Higher Educational Institution (University/University of Technology) 6 = Further Education and Training College (FET) 7 = Other College 8 = Home based education/home schooling 9 = Other than any of the above	Ismainly studying through? Read all and select ONE options 1 = Attending classes 2 = Distance learning
	3.2	e.	4.



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Q	3	
Γ		

		01	02	03	04	05	90	20	80	60	10
3.5	Where is the educational institution? Place where educational institution is situated.										
n	Suburb/Town/place name										
٥	Province 1 = Western Cape 2 = Eastern Cape	F 0	- 2								
	3 = Northern Cape 4 = Free State	ω 4 ι	κ 4 ι	m 4 ι	m 4 ι	κ 4 ι	κ 4 ι	κ 4 ι	w 4 i	ω 4 ι	ω 4 ι
	5 = Kwazulu-Natal 6 = North West	Q Q	Q 2								
	7 = Gauteng 8 = Mpumalanga	7 8	7 8								
	9 = Limpopo	o	O								
υ	District Code (Refer to back of the questionnaire)										
σ	Travel Analysis Zone (Taz) code										
3.6	How many days per week doesusually travel to the educational institution?										
	Write the number of days										

Q3.5 AND Q3.6 ARE NOT BASED ON THE TRAVEL DAY.

	Σ				Σ
10	I				I
	I				I
	Σ				Σ
60	I				I
	I				I
	Σ				Σ
08	I				I
	I				I
	Σ				Σ
07	I				I
	I				I
,,	Σ				Σ
90	I				I
	I				I
	Σ				Σ
02	I				I
	I				I
_	Σ				Σ
04	I				I
	I				I
_	Σ				Σ
03	I				I
	I				I
	Σ				Σ
02	I				I
	I				I
	Σ				Σ
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	=	9	t	e =	
	ay? ay?	his/ľ	ods	of th	ay?
	ucat rel d	o to	tran	itutio	atior rel d
	e ed e trav ock:	here	first	inst	educa trav
	go th n the our of	from day:	/her	lk at ional	the en the
	eto idso 24 hc	avel	or his	o wa ucati fes	re at ids o 24 hc
	leav atten y the	alk tc the tr minu e	ait fo	ave t er ed minu le	arriv atten y the
	did / she using 520	w t t on t er in cnow licabl	w he tre er in cnow licabl	h his/h nis/h ? er in en in	did /she using 520
	time on he time	g did spor answ not k t app	g did on tl answ not k t app	g did ach I il day answ not k t App	time on he time
	At what time did leave to go the educational institution he/she attends on the travel day? Write the time using the 24 hour clock: e.g. 1930 or 0520	How long didwalk to get from here to his/her first transport on the travel day? Give the answer in minutes 998 = Do not know 888 = Not applicable	How long did wait for his/her first transport to arrive on the travel day? Give the answer in minutes 998 = Do not know 888 = Not applicable	How long did have to walk at the end of the trip to reach his/her educational institution on the travel day? Give the answer in minutes 998 = Do not know 888 = Not Applicable	At what time did arrive at the educational institution he/she attends on the travel day? Write the time using the 24 hour clock: e.g. 1930 or 0520
	At winst Write	How first Give 998 888	How to a Give 9988	How trip the Give 998	At w inst Write
	3.7	က် ထ	6. E	3.10	3.11
		M	M	m	m

Sun 7

Sat

Fri D 5

Thu 4

Wed 3

Tue

Mon 1

Travel Day





Sun 7	10	Mode 1	Mode 2	Mode 3			
Sat	60	Mode 1	Mode 2	Mode 3			
Fri	80	Mode 1	Mode 2	Mode 3			
Thu 4	20	Mode 1	Mode 2	Mode 3			
Wed 3	90	Mode 1	Mode 2	Mode 3			
Tue	90	Mode 1	Mode 2	Mode 3			
Mon	04	Mode 1	Mode 2	Mode 3			
Travel Day	03	Mode 1	Mode 2	Mode 3			
	02	Mode 1	Mode 2	Mode 3			
	10	Mode 1	Mode 2	Mode 3			
		2 What mode of travel did use to get to the educational institution he/she attends on the travel day? Indicate all mode of travel in the order (Mode1,2,3) in which they are used.	01 = Train (Metrorail) 02 = Long distance train/Shosholoza 03 = Bus 04 = BRT bus/IRT bus 05 = Metered taxi 06 = Commuter/short-distance/ local minibus taxi 07 = Long-distance minibus taxi 08 = Sedon taxi foundlist con	09 - Sedan taxir but pus one 09 - Bakkie taxir tambai 10 = Carl Bakkie passenger 11 = Carl Bakkie driver 12 = Truck/Lorry/tractor/trailer passenger 13 = Truck/Lorry tractor/trailer driver 14 = Company vehicle 15 = Scooter/motorcycle	16 = Bicycle 17 = Animal drawn transport/vehicle 18 = Boat/ ship 19 = Aircraft 20 = Gautrain 21 = Walking all the way 22 = Other (specify)	Write 88 if not applicable	

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10	Mode 1	Mode 2	Mode 3	Mode 1	Mode 2	Mode 3	
60	Mode 1	Mode 2	Mode 3	Mode 1	Mode 2	Mode 3	
80	Mode 1	Mode 2	Mode 3	Mode 1	Mode 2	Mode 3	
20	Mode 1	Mode 2	Mode 3	Mode 1	Mode 2	Mode 3	
90	Mode 1	Mode 2	Mode 3	Mode 1	Mode 2	Mode 3	
05	Mode 1	Mode 2	Mode 3	Mode 1	Mode 2	Mode 3	
04	Mode 1	Mode 2	Mode 3	Mode 1	Mode 2	Mode 3	
03	Mode 1	Mode 2	Mode 3	Mode 1	Mode 2	Mode 3	
02	Mode 1	Mode 2	Mode 3	Mode 1	Mode 2	Mode 3	
10	Mode 1	Mode 2	Mode 3	Mode 1	Mode 2	Mode 3	
GS.13 AND GS.14 ANE NOT BASED ON THE TRAVEL DATE.	For the mode/s selected in Q3.12, does make a payment	2 = Per return trip 3 = Per week 4 = Per month 5 = Not applicable /	6 = Do not know Go to Section 4	For the mode selected above, how much did it costas per payment method selected in Q3.13?			
Y C	3.13			3.14			

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09 10	- 0 W				
60					
	- 0 m				
80	- 0 m				
07	- 0 m				
90	+ 0 €				
02	← 0/ m				
04	← 0/ m				
03	- 0 m				
02	- 0 m				
01	- 0 m				
	Doeshave a job/run a business or did he/she do any work in the last seven days, even if he/she was absent from work due to leave or illness? If more than one give the activity on which most time is spent per week 1 = Yes – formal sector (registered) → Go to Q4.4 2 = Yes – informal sector 3 = No	Ask if "No" in Q4.1 What is the main reason why did not work during the last seven days?	1 = Scholar or student 2 = Homemaker or housewife 3 = Pensioner / retired person/ too old to work 4 = Seasonal worker, not working presently	5 - Chooses not to work 6 = Cannot find work 7 = Health reasons 8 = Was on leave 9 = Other (specify)	
	1 .	4.2			

		10	02	03	04	05	90	07	80	60	10
£.3	If is currently not working or running his/her own business, is he/she willing to work? 1 = Yes 2 = No Go to Section 5	← ∅	← Ø	← Ø	← N	← N	← Ø	F 0	← Ø	← N	F 0
4.4	Where is's workplace? Place where the workplace is situated?										
æ	Suburb/Town/place name										
۵	Province 1 = Western Cape 2 = Eastern Cape 3 = Northern Cape 4 = Free State 5 = KwaZulu-Natal 6 = North West 7 = Gauteng 8 = Mpumalanga 9 = Limpopo	- 0 6 4 5 9 F 8 6	- 0 6 4 5 9 F 8 6	- 0 % 4 % % F % O	- 0 % 4 % 0 \ % 0	- 0 % 4 to 0 \rangle % o	- N N 4 W O F & O	- 0 % 4 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	- 0 % 4 % Ø F % O	- 0 % 4 % 0 \ % 0	- 0 % 4 % % > % 0
υ	District Code (Refer to back of the questionnaire)										
d 4.5	Travel Analysis Zone (Taz) code How many days per week does usually travel to work? Write 8 if he/she works from home										

8 00		3 2 1							
80		3 2 7							
10									
90		+ 0 E							
90		- C &							
04		- 0 c							
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10		← 0 0							
	/her main job? bonus, after any hole figures, .NOW"	Q 4.6	KNOW" in Q 4.6 applicable code.	Annually	NONE R1-R2400 R2401-R6000	R6 001 - R12 000 R12 001 - R18 000 R18 001 - R30 000	R30 001 - R42 000 R42 001 - R54 000 R54 001 - R72 000	R72 001 - R96 000 R96 001 - R132 000 R132 001 - R192 000	R192 001 - R360 000 R360 001 OR MORE DON'T KNOW REFUSE
	salary/pay at his allowances and Give amount in w decimals. SE" or "DO NOT k	ount is given in	FUSE" or "DO NOT I 3 and mark the	Monthly	NONE R1-R200 R201 - R500	R501 – R1 000 R1 001 - R1 500 R1 501 = R2 500	R2 501 - R3 500 R3 501 - R4 500 R4 501 - R6 000	R6 001 - R8 000 R8 001 - R11 000 R11 001 - R16 000	R16 001 - R30 000 R30 001 OR MORE DON'T KNOW REFUSE
	What is's total salary/pay at his/her main job?? Including overtime, allowances and bonus, after any lax or deductions. Give amount in whole figures, without any text or decimals. If 'NONE', "REFUSE" or "DO NOT KNOW" WRITE 999 999 999 Go to Q 4.8	Ask only if an amount is given in Q 4.6 Is this 1 = Per week 2 = Per month 3 = Annually Goto Q 4.9	Only if "NONE", "REFUSE" or "DO NOT KNOW" in Q 4.6 Show prompt card 3 and mark the applicable code.	Weekly	NONE R1 - R46 R47 - R115	R116 - R231 R232 - R346 R347 = R577	R578 - R808 R809 - R1 039 R1 040 - R1 386	R1 387 - R1 848 R1 849 - R2 540 R2 541 - R3 695	R3 696 - R6 928 R6 929 OR MORE DON'T KNOW REFUSE
	X ₹ £ £ Z X	3 2 - 8 A	O Ø		02 03 03	00 00 00 00 00 00 00 00 00 00 00 00 00	08 09 09	12 1 1	£ 1 5 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9

If respondent works from home — Go to section 5

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			Did walk all the way to work on the travel day? 1 = Yes ——▶ Go to Section 5 2 = No	Did cycle all the way to work on the travel day? 1 = Yes — ▶ Go to Section 5 2 = No	Did drive all the way to work on the travel day? (Not as a passenger) 1 = Yes 2 = No → Go to Q4.20	
			vel	avel	svel	9
			tra	e trê	e tra	d riv
	ck:	ck:	the	n th	n th	Which of the following vehicles did drive to work on the travel day? 1 = Truck/Lorry 2 = Car/ Bakkie 3 = Motor cycle/Scooter 4 = Minibus (private) 5 = Other (specify)
	At what time didleave to go to work on the travel day? Write the time using the 24 hour clock: e.g. 1930 or 0520	At what time did get to the place of work on the travel day? Write the time using the 24 hour clock: e.g. 1930 or 0520	k on 7 5	rko 15	ج و	မ S
	At what time didleave to go to work on the travel day? Write the time using the 24 hour e.g. 1930 or 0520	At what time did get to the place of work on the travel day? Write the time using the 24 hour clc.g. 1930 or 0520	d walk all the way to work o 1 = Yes ——▶ Go to Section 5 2 = No	all the way to work o	WOI	Pick
	day	rave	y to Sec	sy to Sec	y to	day day ter
	lea vel c y th∈	ihe t	o to	e wa	e wa er) o tc	wing
	iid . tra using 20	on t on t using	the ▼ G	★ = ♦	enge	ollo e tra ry kie Sle/S priva ecify
	At what time didleave to to work on the travel day? Write the time using the 24 h e.g. 1930 or 0520	At what time did. place of work on Write the time usir e.g. 1930 or 0520	a	<u>e</u>	Did drive all the way to wo (Not as a passenger) 1 = Yes 2 = No → Go to Q4.20	Which of the following vehi to work on the travel day? 1 = Truck/Lorry 2 = Car/ Bakkie 3 = Motor cycle/Scooter 4 = Minibus (private) 5 = Other (specify)
	k or k or he ti	of w of w he ti	wal Yes	cyc ≺es	driv s a p res	of t rk o ruck 3ar/ 1 Aotol Alinib)ther
	whi wor rite ti 7. 19	whi ace it ite ti	d wa 1 = Yes 2 = No	d cycle 1 = Yes - 2 = No	d driv ot as a p 1 = Yes 2 = No	hich wo wo = = 1 = = 1 = = 0
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	6.9	4.10	4.11	4.12	4.13	4.14
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Thu 4

Wed 3

Tue

Mon

Travel Day





Sun 7

Sat

Fri 5

Thu

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Mon

Travel Day

		01	02	03	04	05	90	20	80	60	10
4.15	Did need his/her vehicle at work for work purposes on the travel day? 1 = Yes 2 = No	- 0	- 0	- 0	- 0	- 0	- N	- 0	F 0	- 0	- 0
4.16	Did have to drop/pick up passengers on his/her way to work on the travel day? $1 = Yes$ $2 = No$	- 0	- 0	- 0	← Ø	- 4	← Ø	- 0	F 04	← Ø	- N
4.17	Did have to drop/pick up passengers on his/her way back home on the travel day? $1 = \forall es \\ 2 = No$	F 0	F 0	F 0	- ∨	- 0	← Ø	- 2	F 8	- 0	7 2
4.18	For the vehicle used to drive to work, how much does it costto travel to work?										
4.19	Was the payment of the cost in Q4.18 made 1 = Per single trip 2 = Per return trip 3 = Per week 4 = Per month 5 = Do not know Go to Section 5										
4.20	Did change transport on the way to work on the travel day? (e.g. train to train, bus to train) 1 = Yes 2 = No	2 1	F 8	F 8	F 0	- 0	- 2	7 2	7 7	5 4	2 1

10	Mode 1	Mode 2	Mode 3	Mode 4					
60	Mode 1	Mode 2	Mode 3	Mode 4					
80	Mode 1	Mode 2	Mode 3	Mode 4					
20	Mode 1	Mode 2	Mode 3	Mode 4					
90	Mode 1	Mode 2	Mode 3	Mode 4					
90	Mode 1	Mode 2	Mode 3	Mode 4					
04	Mode 1	Mode 2	Mode 3	Mode 4					
03	Mode 1	Mode 2	Mode 3	Mode 4					
02	Mode 1	Mode 2	Mode 3	Mode 4					
01	Mode 1	Mode 2	Mode 3	Mode 4					
	What mode of travel did use to get to his/her place of employment on the travel day? Indicate all modes of travel in the order (Mode1,2,3,4) in which they are used. O1 = Train (Metrorail) O2 = Long distance train/Shosholoza	03 = Bus 04 = BRT bus/IRT bus 05 = Metered taxi 06 = Commuter/short-distance/ local	O7 = Long-distance minibus taxi O7 = Long-distance minibus taxi O8 = Sedan taxi/ four plus one O9 = Bakkie taxi/ tambai 10 = Car/ Bakkie passenger 11 = Car/ Bakkie driver	12 = Truck/Lorry/tractor/trailer passenger 13 = Truck/Lorry tractor/trailer driver 14 = Company vehicle	15 = Scooter/motorcycle 16 = Bicycle 17 = Animal drawn transport/vehicle 18 = Boat ship	18 - All datt 20 = Gautrain 21 = Walking all the way 22 = Other (specify)	Write 88 if not applicable		
	4.21								
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Sun 7

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Travel Day

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10	Mode 1	Mode 2	Mode 3	Mode 4	Mode 1	Mode 2	Mode 3	Mode 4
60	Mode 1	Mode 2	Mode 3	Mode 4	Mode 1	Mode 2	Mode 3	Mode 4
80	Mode 1	Mode 2	Mode 3	Mode 4	Mode 1	Mode 2	Mode 3	Mode 4
07	Mode 1	Mode 2	Mode 3	Mode 4	Mode 1	Mode 2	Mode 3	Mode 4
90	Mode 1	Mode 2	Mode 3	Mode 4	Mode 1	Mode 2	Mode 3	Mode 4
05	Mode 1	Mode 2	Wode 3	Mode 4	Mode 1	Mode 2	Mode 3	Mode 4
04	Mode 1	Mode 2	Mode 3	Mode 4	Mode 1	Mode 2	Mode 3	Mode 4
03	Mode 1	Mode 2	Mode 3	Mode 4	Mode 1	Mode 2	Mode 3	Mode 4
02	Mode 1	Mode 2	Mode 3	Mode 4	Mode 1	Mode 2	Mode 3	Mode 4
01	Mode 1	Mode 2	Mode 3	Mode 4	Mode 1	Mode 2	Mode 3	Mode 4
Q4.22 AND Q4.23 ARE NOT BASED ON THE TRAVEL DAT.	Eor the modes of travel used, how much did it costto travel to work?					2 = Per return trip 3 = Per week 4 = Per month 5 = Not applicable / I do not pay 6 = Do not know		
Q4.22	4.22				4.23			

Q4.22 AND Q4.23 ARE NOT BASED ON THE TRAVEL DAY.

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10 7 2	
Does's employer give him/her cash for public transport to travel to and from work? 1 = Yes 2 = No	
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Travel Day



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•	or both	
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	trips	
	Business trips can be a day or overnight trip(s) or both.	NECTION 5 IS NOT BASED ON THE TBAVEL DAY

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20	F 0		
90	← N		
90	← N		
04	← N		
03	← N		
02	← W		
10	F 0		
	Has undertaken any business trip(s) longer than 20 km away from his/her usual place of wor within the RSA in the past calendar month? 1 = Yes 2 = No	How many business trips has undertaken in the past calendar month? Write the number of trips	Thinking of 's last business trip what mode of travel did use for the longest part of the trip? 01 = Train (Metrorail) 02 = Long distance train/Shosholoza 03 = Bus 04 = BRT bus/IRT bus 05 = Metered taxi 06 = Commuter/short-distance/ local minibus taxi 07 = Long-distance minibus taxi 08 = Sedan taxi/ four plus one 09 = Bakkie taxi/ tambai 10 = Car/ Bakkie passenger 11 = Car/ Bakkie driver 12 = Truck/Lorry/tractor/trailer passenger 13 = Truck/Lorry/tractor/trailer 14 = Company vehicle 15 = Scooter/motorcycle 16 = Bicycle 17 = Animal drawn transport/vehicle 18 = Boat/ ship 19 = Aircraft 20 = Gautrain 21 = Walking all the way 22 = Other (specify) Write 88 if not applicable
	5.1	5.2	မ်

		-0	70	03	04	co	90	/0	S O	60	2
5.4	How much did it cost for the trip there and back? Write costs for transport recorded in Q5.3. (Provide in Rands with no decimals or cents)										
5.5	What was the main destination on this trip?										
a	Suburb/Town/place name										
۵	Province 1 = Western Cape 2 = Eastern Cape 3 = Northern Cape 4 = Free State 5 = KwaZulu-Natal 6 = North West 7 = Gauteng 8 = Mpumalanga 9 = Limpopo	- N W 4 W 0 F 80	- N & 4 & & P & & &	- N W 4 W O P & O	- N W 4 M O F & O	- N W 4 W W P & O	- N W 4 W O P & O	- N W 4 W W P & O	- 0 6 4 6 9 F 8 0	- 0 % 4 % © \ % O	- 0 m 4 m 0 r m o
υ σ	District Code (Refer to back of the questionnaire) Travel Analysis Zone (Taz) code										

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SECTION 6: OTHER TRAVEL PATTERNS (Ask people aged 15 years and above) SECTION 6 IS BASED ON THE MOST RECENT DAY AND OVERNIGHT TRIPS	
SECTI	

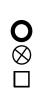
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	Day trips	Has undertaken any day trip/s away from this home in the past twelve months? 1 = Yes 2 = No	What was the main purpose of the trip? (recent trip) Mark ONE response only 01 = Home for leisure/holiday 02 = Leisure/ holiday 03 = Shopping – business 04 = Shopping – personal 05 = Sporting – spectator 06 = Sporting – participant 07 = Home to visit friends and/or family 08 = Visit friends and/or family 09 = Funeral 10 = Medical 11 = Wellness (e.g. spa, health farm) 12 = Religious 13 = Wedding 14 = Other, (Specify)	
2		6.1	6.2	

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	What was the main mode of travel used for this trip? This is the mode of travel used for the longest part of the journey in terms of distance to reach the destination. 01 = Train (Metrorail) 02 = Long distance train/Shosholoza 03 = Bus 04 = BRT bus/IRT bus 05 = Metered taxi 06 = Commuter/short-distance/ local minibus taxi 07 = Long-distance minibus taxi 08 = Sedan taxi/ four plus one 09 = Bakkie taxi/ tambai 10 = Car/ Bakkie driver 11 = Car/ Bakkie driver 12 = Truck/Lorry/tractor/trailer driver 13 = Truck/Lorry/tractor/trailer 14 = Company vehicle 15 = Scocter/motorcycle 16 = Bicycle 17 = Animal drawn transport/vehicle 18 = Boat/ ship 19 = Aircraft 20 = Gautrain 21 = Walking all the way 22 = Other (specify)	How much did it cost to reach the main destination?
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10		- 0	01 03 03	00 05 07 07 08 08 09 07 17 17 17 17 17 17 17 17 17 17 17 17 17
60		F 0	01 03 04	10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
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90		F 0	00 03 04	00 00 00 00 00 00 00 00 00 00 00 00 00
04		F 0	01 02 03	00 00 00 00 00 00 00 00 00 00 00 00 00
03		F 0	02 03 04	00 00 00 00 00 00 11 11 13
02		- 0	00 00 00 00 00 00 00 00 00 00 00 00 00	10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
10		F 0	02 03 04	00 00 00 00 00 00 00 11 11 13
	Overnight trips	Has undertaken any overnight trip/s away from this home in the past twelve months? 1 = Yes 2 = No	How often didundertake overnight trip/s in the past twelve months? (Mark one option) 1 = Weekly (four or more times in a month) 2 = One to three times in a month 3 = Every two to three months (4 to 6 times in a year) 4 = One to three times in a year	What was the main purpose of the trip? (recent trip) Mark ONE response only 01 = Home for leisure/holiday 02 = Leisure/ holiday 03 = Shopping – business 04 = Shopping – personal 05 = Sporting – perticipant 07 = Home to visit friends and/or family 08 = Visit friends and/or family 09 = Funeral 10 = Medical 11 = Wellness (e.g. spa, health farm) 12 = Religious 13 = Wedding 14 = Other, (Specify)
		6.5	9.9	6.7



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	what was the main mode of travel used to reach the main destination? This is the mode of travel used for the longest part of the journey in terms of distance to reach the destination. O1 = Train (Metrorail) O2 = Long distance train/Shosholoza O3 = Bus O4 = BRT bus/IRT bus O5 = Metered taxi O6 = Commuter/short-distance/ local minibus taxi O7 = Long-distance minibus taxi O8 = Sedan taxi/ four plus one O9 = Bakkie passenger 11 = Car/ Bakkie driver 12 = Truck/Lorry/tractor/trailer passenger 13 = Truck/Lorry/tractor/trailer passenger 14 = Company vehicle 15 = Scooter/motorcycle 16 = Bicycle 17 = Animal drawn transport/vehicle 18 = Boat/ ship 19 = Aircraft 20 = Gautrain 21 = Walking all the way 22 = Other (specify)	How much did it cost to reach the main destination?
	8. 9	6.

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80				
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90				
90				
04				
03				
02				
01				
	What was the main mode of travel used to return to the usual place of residence? This is the mode of travel used for the longest part of the journey in terms of distance to reach th destination.	01 = Train (Metrorail) 02 = Long distance train/Shosholoza 03 = Bus 04 = BRT bus/IRT bus 05 = Metered taxi 06 = Commuter/short-distance/ local minibus taxi 07 = Long-distance minibus taxi 08 = Sedan taxi/ tambai 08 = Bakkie taxi/ tambai 10 = Carl Bakkie passenger 11 = Carl Bakkie driver 12 = Truck/Lorry/tractor/trailer passenger 13 = Truck/Lorry tractor/trailer 14 = Company vehicle 15 = Scooter/motorcycle 16 = Bicycle 17 = Animal drawn transport/vehicle 18 = Boat/ ship	19 = Aircraft 20 = Gautrain 21 = Walking all the way 22 = Other (specify) Write 88 if not applicable	I How much did it cost to return to his/her usual place of residence?
	6.10			6.11

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SECTION 7: GENERAL HOUSEHOLD INFORMATION

7.1	Indicate the type of main dwelling that the household occupies	
	01 = Dwelling/house or brick/concrete block structure on a separate stand or yard or on farm 02 = Traditional dwelling/hut/structure made of traditional materials 03 = Flat or apartment in a block of flats 04 = Cluster house in complex 05 = Town house (semi-detached house in complex) 06 = Semi-Detached house 07 = Dwelling/house/flat/room in backyard 08 = Informal dwelling/shack in backyard 09 = Informal/squatter settlement or on farm 10 = Room/ flatlet on a property or a larger dwelling/ servants' quarters/granny flat 11 = Caravan/tent	Main Dwelling
2.2	What was the total household expenditure in the last month? Include money spent on food, clothing, transport, rent and rates, alcohol and tobacco, school fees, entertainment and any other expenses. 10 = R1 — R199 10 = R200 — R399 10 = R400 — R799 10 = R1 200 — R1 399 10 = R1 200 — R2 499 10 = R2 500 — R4 999 10 = R9 5000 — R9 999 10 = R0 000 or more 11 = Do not know 12 = Refuse	

7.3	What are the sources of income for this household? Read all the options	>	2
	1 = Salaries/wages/commission	ת מ	2
	2 = Income from a business	~	2
	3 = Remittances/ including child maintenance	_	2
	4 = Pensions	_	2
	5 = Grants	_	2
	6 = Sales of farming products and services	_	2
	7 = Income from UIF	_	2
	8 = Other income sources e.g. rental income, interest	~	2
	9 = No income Go to Q 7.7	~	2
4.7	Which one of the above income sources usually provides the most money for the household? (choose only one source) Write the option number in the block provided		
7.5	If the household receives an income from remittances please specify how much they get per month.		
7.6	If the household receives an income from pensions or retirement annuities (Not old age grant) please specify how much they get per month.		
7.7	How many bicycles that are in working order does this household own and use for transport?		
7.8	How many animal drawn vehicles that are in working order does this household own and use for transport?		
7.9	Do you own animals that can pull animal drawn vehicles? $1 = Yes \\ 2 = No$		T 2





SECTION 7: GENERAL HOUSEHOLD INFORMATION

O How many of the following motor vehicles in working order does this household have available for private use (exclude tractors) (Read out all options)	Motorcycle/Scooter	Car/Bakkies/Station wagons/4x4s owned by employer/company	Car/Bakkies/Station wagons/ 4x4s owned by the household	Car/Bakkies/Station wagons/ 4x4s owned by relatives / friends	Minibus/Kombis	Trucks	Other, specify
7.10							

SECTION 7: GENERAL HOUSEHOLD INFORMATION

7.11		How do members of your household get to the nearest of each of the following facilities? And how long does it take to get there in minutes from this household to the facility (door to door)? (If more than one member of the household travels to a facility, record the mode of travel used by the person who goes there most often. If more than one mode of travel is used, mark the one used over the longest distance)	Is to a facility, record the mode of
	Facility	Codes: 01 = Walk 02 = Train 03 = Bus 04 = Minibus taxi/bakkie taxi/sedan taxi 05 = Metered Taxi 06 = Car/ Bakkie/ Minibus (private) 07 = Truck/ Lorry 08 = Tractor/ Trailer 09 = Motorcycle/ Scooter 10 = Bicycle 11 = AnimalTransport 12 = Do not need to go there	ngle trip) le/No Service
	Food or grocery shops		
	Other shops		
	Traditional healer		
	Church		
	Medical Services		
	Post office/ agent		
	Welfare office		
	Police station		
	Municipal office		
	Tribal authority		
	Financial services/Banks		

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SECTION 8: ATTITUDES AND PERCEPTIONS ABOUT TRANSPORT This section covers information on your attitudes towards transport services.

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When travelling, which factor influences your households' choice of mode of travel most? (Wark one option) 01 = Travel time 02 = Travel cost 03 = Safety from accidents 04 = Security from crime 05 = Flexibility (you can travel wherever you want, whenever you want) 06 = Drivers attitude 07 = Distance from home to transport	08 = Comfortability 09 = Timetable not available/ information inaccurate 10 = Reliability 11 =Other, Specify	How long does it take in minutes to walk to the nearest? a = Taxi rank/ route (Minibus, sedan and/or bakkie taxi) b = Bus Stop/ station c = Bus Rapid Transport (BRT)/ IRT station d = Passenger Train Station	888 = Not applicable/ No service 998 = Do not know	
8.2		8. 8.		
Problem 1				
What are the two most important transport-related problems experienced by the household? 01 = No buses available 02 = No buses at specific times e.g. late at night 03 = Buses too far 04 = Buses too expensive 05 = Reckless driving by bus drivers 06 = No taxis available 07 = No taxis at specific times e.g. late at night 08 = Taxis too far 09 = Taxis too far	10 = Reckless driving by taxi drivers 11 = No trains available 12 = No trains at specific times e.g. late at night 13 = Trains too far 14 = Trains are not reliable 15 = Trains are not reliable 16 = Crime 17 = Overload 18 = Rude drivers 19 = Poor condition of roads 20 = Parking 21 = Trail fees	22 = Controllers 23 = No transport problems 24 = Other (specify) 88 = Not applicable		

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Mode 1		Mode 2				
8.4 What are the two main modes of travel does the household usually use? 0.1 = Train (Metrorall)	02 = Long distance train/onestionesa 03 = Bus 04 = BRT bus/IRT bus 05 = Metered taxi 06 = Communicyshort-distance/ local	of = Long-distance minibus taxi	13 = Truck/Lorry/ tractor/trailer driver 14 = Company vehicle 15 = Scooter/motorcycle 16 = Bicycle 17 = Animal transport 18 = Boat/ Ship	19 = Aircraft 20 = Gautrain 21 = Walking all the way 22 = Other (specify)		

8.7																							
- 2		Reason 1				Reason 2																	
Have you used a passenger train in the past calendar month? 1 = Yes 2 = No	Give two reasons why you did not use a passenger train in the past calendar month?	01 = No Train available at all	02 = Train Not available often enough	03 = Train Not available at the right times	04 = Train too expensive	05 = Too much crime (Too dangerous)	06= Travel time too long/Too slow	07 = Trains too crowded	08 = Trains always late	09= Trains don't go where needed	10= Station too far from home	11= Station too far from destination	12 = Have to change transport (transfer)	13 = No knowledge of timetable and routes	14 = Prefer private transport	15 = Prefer taxi	16 = Prefer bus	17 = Can walk	18 = Don't travel much	19 = Other (specify in the block)	60.10 40.0		

8.7	How satisfied or dissatisfied are you with the following aspects of the passenger train service? (Read out all options)				
		Metrorail	Shosholoza	Bluetrain	Gautrair
	$a=\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	Ø	m	В	Ø
	b = The travel time by train	Ω	Q	Q	Q
	c = Security on the walk to/from the station	O	O	O	O
	d = Security at stations	р	ρ	ρ	σ
	e = Security on the train	Φ	Φ	Φ	Φ
	f = The level of crowding in the train	4-	-	-	-
	g = Safety from accidents	б	D	б	D
	h = The frequency of trains during peak period	٩	د	ч	ح
	i = The frequency of trains during off-peak period			-	
	j = The punctuality of trains				.—
	k = The train fares	*	×	*	*
	l = The facilities at the stations e.g. tollets, offices	-	-	-	-
	m = The train service overall	Ε	Ε	Ε	Ε
	1 = Very Satisfied 2 = Satisfied 3 = Dissatisfied 4 = Very Dissatisfied 8 = Not applicable				

∞	Have you used a bus in the past calendar month? 1 = Yes 2 = No	F 0	
6.8	Give two reasons why you did not use a bus in the past calendar month?		
	01 = No Bus available at all	000	
	02 = Bus Not available often enough	Leason	
	03 = Bus Not available at the right times		
	04 = Bus too expensive		
	05 = Too much crime (Too dangerous)		
	06= Travel time to long/Too slow	Reason 2	
	07 = Buses too crowded		
	08 = Buses always late		
	09= Buses don't go where needed		
	10= Bus stop too far from home		
	11= Bus stop too far from destination		
	12 = Have to change transport (transfer)		
	13 = No knowledge of timetable and routes		
	14 = Prefer private transport		
	15 = Prefer taxi		
	16 = Prefer train		
	17 = Can walk		
	18 = Don't travel much		
	19 = Too many accidents		
	20 = Other (specify)		
	50 50 50 50 50 50 50 50 50 50 50 50 50 5		

00	8.10	How satisfied or dissatisfied are you with	Bus	BRT/IRT bus
		the following aspects of the bus service?		
		(Read out all options)	Ø	Ø
		a = The distance between the bus stop and your home	Ф	٩
		b = The travel time by bus		
		c = Security on the walk to/from the bus stop	O	O
		d = Security at the bus stops	7	τ
		e = Security on the buses	5	5
		f = The level of crowding in the bus	Φ	Φ
		g = Safety from accidents		
		h = The frequency of buses during peak period	+	-
		i = The frequency of buses during off-peak period	0	0
		j = The punctuality of buses))
		k = The bus fares	ح	ح
		I = The facilities at the bus stops e.g. shelters		
		m = Behaviour of the bus drivers towards passengers	-	-
		n = The bus service overall	-	-
		o = Availability of information		
		1 = Very Satisfied	×	×
		2 = Satisfied	-	-
		3 = Dissatisfied		
		4 = Very Dissatisfied	Ε	Ε
		8 = Not applicable	0	0

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used a minibus taxi in the past calendar month? —► Go to Q8.13 Give two reasons why you did not use minibus taxis in the past calendar month? 01 = No Taxis available at all 02 = Taxis Not available often enough 03 = Taxis Not available at the right times 04 = Taxis too expensive 05 = Too much crime (Too dangerous) 06 = Taxis too crowded 07 = Taxis don't go where needed 08 = Prefer private transport 09 = Prefer train 10 = Prefer bus 11 = Can walk 12 = Don't travel much 13 = Too much violence/ wars 14 = Have to pay cash 15 = Drivers are rude 16 = Taxis Not roadworthy 17 = Too many accidents 18 = Drivers drive recklessly 19 = Other (specify) End of interview 8.12

End of interview

∑ ∑ H H INTERVIEW END TIME Indicate the column number of the person who answered most of the questions in Sections 1-8 Interviewer to answer questions below: 8.14 Thank the respondent!

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conducted? 01 = Afrikaans 02 = English 03 = Isindebele/South ndebele/North Ndebele 04 = Isixhosa/Xhosa 05 = Isizulu/Zulu 06 = Sepedi/Northern sotho/Sotho 07 = Sesotho/Southern sotho/Sotho 08 = Setswana/Tswana 09 = Siswati/Swazi 10 = Tshivenda/Venda 11 = Xitsonga/Tsonga 12 = Other, (Specify)
02 = English 03 = Isindebele/South ndebele/North Ndebele 04 = Isixhosa/Xhosa 05 = Isizulu/Zulu 06 = Sepedi/Northern sotho 07 = Sesotho/Southern sotho/Sotho 08 = Setswana/Tswana 09 = Siswati/Swazi 10 = Tshivenda/Venda 11 = Xitsonga/Tsonga 12 = Other, (Specify)
03 = Isindebele/South ndebele/North Ndebele 04 = Isixhosa/Xhosa 05 = Isizulu/Zulu 06 = Sepedi/Northern sotho 07 = Sesotho/Southern sotho/Sotho 08 = Setswana/Tswana 09 = Siswati/Swazi 10 = Tshivenda/Venda 11 = Xitsonga/Tsonga 12 = Other, (Specify)
04 = Isixhosa/Xhosa 05 = Isizulu/Zulu 06 = Sepedi/Northern sotho 07 = Sesotho/Southern sotho/Sotho 08 = Setswana/Tswana 09 = Siswati/Swazi 10 = Tshivenda/Venda 11 = Xitsonga/Tsonga 12 = Other, (Specify)
05 = Isizulu/Zulu 06 = Sepedi/Northern sotho 07 = Sesotho/Southern sotho/Sotho 08 = Setswana/Tswana 09 = Siswati/Swazi 10 = Tshivenda/Venda 11 = Xitsonga/Tsonga 12 = Other, (Spedify)
06 = Sepedi/Northern sotho 07 = Sesotho/Southern sotho/Sotho 08 = Setswana/Tswana 09 = Siswati/Swazi 10 = Tshivenda/Venda 11 = Xitsonga/Tsonga 12 = Other, (Specify)
07 = Sesotho/Southern sotho/Sotho 08 = Setswana/Tswana 09 = Siswati/Swazi 10 = Tshivenda/Venda 11 = Xitsonga/Tsonga 12 = Other, (Specify)
08 = Setswana/Tswana 09 = Siswati/Swazi 10 = Tshivenda/Venda 11 = Xitsonga/Tsonga 12 = Other, (Specify)
09 = Siswati/Swazi 10 = Tshivenda/Venda 11 = Xitsonga/Tsonga 12 = Other, (Spedify)
10 = Tshivenda/Venda 11 = Xitsonga/Tsonga 12 = Other, (Specify)
11 = Xitsonga/Tsonga 12 = Other, (Specify)
12 = Other, (Specify)
What type of living quarters are these?1 = Private dwelling2 = Workers hostel
quarters are these?

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	General comments							
MMENTS	erson Ger umber							
GENERAL CC	Question Person Ger Number Number							

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Province	District Name	Province	District Name
1 = Western Cape	0 >	6 = North West	35 = Bojanala District Municipality 36 = Ngaka Modiri Molema District Municipality 37 = Dr Ruth Segomotsi Mompati District Municipality 38 = Dr Kenneth Kaunda District Municipality
	u5 = Eden District Municipality 06 = Central Karoo District Municipality	7 = Gauteng	39 = Sedibeng District Municipality
2 = Eastern Cape	07 = Cacadu District Municipality 08 = Amatole District Municipality 09 = Chris Hani District Municipality 10 = Ukhahlamba District Municipality		40 = Metsweding District Municipality 41 = West Rand District Municipality 42 = Ekurhuleni Metropolitan Municipality 43 = City of Johannesburg Metropolitan Municipality 44 = City of Tshwane Metropolitan Municipality
	11 = O N ranno District Municipality 12 = Alfred Nzo District Municipality 13 = Nelson Mandela Bay Metropolitan	8 = Mpumalanga	45 = Gert Sibande District Municipality 46 = Nkangala District Municipality
3 - Northorn Cano	14 - Keologodi Dietrict Municipality		4/ = Emanzem District Municipality
	14 - Ngalagaul District Municipality 15 = Namakwa District Municipality 16 = Pixley Ka Seme District Municipality 17 = Siyanda District Municipality 18 = Frances Baard District Municipality	9 = Limpopo	48 = Mopani District Municipality 49 = Vhembe District Municipality 50 = Capricorn District Municipality 51 = Waterbeg District Municipality 52 = Capric Municipality
4 = Free State	 19 = Xhariep District Municipality 20 = Motheo District Municipality 21 = Lejweleputswa District Municipality 22 = Thabo Mofutsanyane District Municipality 23 = Fezile Dabi District Municipality 		98 = Don't know
5 = KwaZulu-Natal	24 = Ugu District Municipality 25 = uMgungundlovu District Municipality 26 = uThukela District Municipality 27 = uMzinyathi District Municipality 28 = Amajuba District Municipality 29 = Zululand District Municipality 30 = uMkhanyakude District Municipality 31 = uThungulu District Municipality 32 = ilembe District Municipality 33 = Sisonke District Municipality 33 = Sisonke District Municipality 34 = EThekwini Municipality		

Annexure B: Comparison of the 2013 and 2003 questionnaires

Statistics South Africa

Comparative analysis: National Household Travel Survey questionnaires 2003 and 2013

Flap

No.	Question	2003	2013
4	First name and surname	Equivalent	
В	Four-by-four rule	Equivalent	
ပ	Sex	Equivalent	
О	Date of birth		New question
3	Population group	Equivalent	
Ш	Driver's licence (Age >=16)		New question
9	Type of driver's licence	Equivalent Q4.1	
I	Other person residing in the household but not presently here? Equivalent QF	Equivalent QF	

Section 1: Household characteristics

No.	Question	2003	2013
General functioning	ınctioning		
1.1	Difficulty in seeing, hearing, walking/climbing, remembering and Equivalent Q2.2	Equivalent Q2.2	New response
	concentrating, self-care, communicating		categories
1.2	Use of assistive devices		New question
Social gra	Social grants and social relief		
1.3	Receive social grant, pension or social relief		New question
1.4	Type of grant		New question

Section 2: General travel patterns

No.	Questions	2003	2013
2.1	On which day does usually travel/leave the house?		New question
2.2	Did take any trip/travel in the past seven days?	Equivalent Q2.3	Q2.2
2.3	Main reasons for not making any trip/travel. Ask if 'No' to Q2.2	Equivalent Q2.4	Q2.3
			The question is
			rephrased and more
			response categories are
			added
2.4	Number of trips made	Equivalent Q2.5	Q2.4
2.5	Modes of travel used	Equivalent Q2.6	Q2.5
			More response
			categories are added
2.6	Main reasons why walked all the way to the destination?		New question

Section 3: Education and education related patterns

o O	Questions	2003	2013
3.1	Highest level of education	Equivalent	
3.2	Is currently attending an educational institution?	Equivalent	
3.3	Type of educational institution	Equivalent	
3.4	Is mainly studying through attending classes or distance learning?	Equivalent	
3.5	Where is the educational institution?	Equivalent	TAZ code has
	a. Suburb		been added to
	b. Province		the response
	c. District code		categories
	d. Travel Analysis Zone (TAZ) code		
3.6	Number of days per week a person travels to an educational institution		New question
3.7	At what time did leave to go to the educational institution on the travel	Equivalent Q3.6	Q3.7
	day?		
3.8	How long did walk to get from here to his/her first transport?		New question
3.9	How long did wait for his/her first transport to arrive?		New question
3.10	How long did have to walk at the end of the trip to reach his/her the		New question
	educational institution?		
3.11	At what time did arrive at the educational institution he/she attends on	Equivalent Q3.7	Q3.11
	the travel day?		
3.12	Mode of transport used to get to the educational institution	Equivalent Q3.8	Q3.12
3.13	For the mode/s selected in Q3.12, is the payment made per single trip, per	Equivalent	Q3.13
	return trip, per week, per month?	Q3.10	
3.14	How much did it cost? If payment made in Q3.14	Equivalent Q3.9	Q3.14

Section 4: Work related travel patterns (Ask people aged 15 years and above)

2003 questions: Are not based on the travel day whereas

2013 questions: Are based on the travel day

o N	Question	2003	2013
4.1	Does have a job/run a business or did he/she do any work in the	Equivalent Q4.2	
	last seven days, even if he/she was absent from work due to		
	ieave/iiiness :		
4.2	Reason for not working in the last seven days? Ask if 'No' in 4.1	Equivalent Q4.3	
4.3	If is currently not working or running his/her business, is he/she		
	willing to work?		
4.4	Workplace(Place where the workplace is situated)	Equivalent Q6.1	
	a. Suburb		
	b. Province		
	c. District code		
	d. Travel Analysis Zone (TAZ) code		
4.5	Number of days per week a person travels to work		New question
4.6	Total salary at the main job	Equivalent Q5.4a	
4.7	Is the amount per week , per month or annually ? Ask only if amount	Equivalent Q5.4ab	
	is given in Q4.6		
4.8	If 'None' 'refuse' or 'do not know' in Q4.6, show prompt card 3 and	Equivalent Q5.4ac	
	mark the applicable code		
4.9	At what time did leave to go to the work on the travel day?	Not equivalent Q6.2	
4.10	At what time did get to the place of work on that travel day?	Not equivalent Q6.3	
4.11	Did walk all the way to work on the travel day?	Not equivalent Q6.4	
4.12	Did cycle all the way to work on the travel day?	Not equivalent Q6.5	
4.13	Did drive all the way to work on the travel day?	Not equivalent Q6.6	
4.14	Type of vehicle driven to work on the travel day	Not equivalent Q6.7	
4.15	Did need his/her vehicle at work for work purposes on the travel	Not equivalent Q6.8	
	day?		
4.16	Did have to drop/pick up passengers on his/her way to work on the	Not equivalent Q6.9	
	travel day?		

No.	Question	2003	2013
4.17	Did have to drop/pick up passengers on his/her way back home on the travel day?	Not equivalent Q6.10	
4.18	For the vehicle used to drive to work, how much does it cost to travel to work?		New question
4.19	Was the payment in Q4.18 made per single trip, per return trip, per week, per month?		New question
4.20	Did change transport on the way to work on the travel day? (e.g. train to train, bus to train)	Not equivalent Q6.11	
4.21	Mode of transport used to get to work on the travel day	Not equivalent Q6.12	
4.22	For the modes of travel used, how much did it cost to travel to work?	Equivalent Q6.13	
4.23	Was the payment in Q4.22 made: per single trip, per return trip, per week, per month?	Equivalent Q6.14	
4.24	Does's employer give him/her cash for public transport to travel to and from work?	Not equivalent Q6.15	
4.25	How much is this worth per month?	Not equivalent Q6.16	
4.26	How long did walk to get from here to his/her first transport on the travel day?	Not equivalent Q6.17	
4.27	How long did wait for his/her first transport to arrive on the travel day?	Not equivalent Q6.18	
4.28	How long did walk at the end of the trip to reach his/her place of work on the travel day?	Not equivalent Q6.19	

Section 5: Business trips (Ask people aged 15 years and above)

Vo	Question	2003	2013
5.1	Has undertaken any business trip(s) longer than 20 km away from her place of work within the RSA in the past	Not equivalent Q5.5	The trip distance changed from 200 km to 20 km and
	calendar month?		tne question is siigntiy rephrased
5.2	Number of trips taken in the past calendar month	Equivalent Q5.6	
5.3	Mode of transport used for the longest part of the trip	Equivalent Q5.8	
5.4	How much did it cost for the trip there and back?		New question
5.5	Main destination of the trip	Equivalent Q5.7	
	a. Suburb		
	b. Province		
	c. District code		
	d. Travel Analysis Zone (TAZ) code		

Section 6: Other travel patterns (Ask people aged 15 years and above)

No.	Question	2003	2013
Day trips			
6.1	Has undertaken any day trip/s away from home in the past twelve months?	Day trips are not covered in this	New questions
6.2	Main purpose of the trip	section	
6.3	Main mode of travel used for the trip		
6.4	How much did it cost to reach the main destination?		
Overnight trips	rips		
6.5	Has undertaken any overnight trip/s away from home in the	Not equivalent Q5.9	
	past twelve months?		
9.9	How often did undertake overnight trip/s in the past twelve	Not equivalent Q5.11	
	months?		
6.7	Main purpose of the trip		New question
6.8	Main mode of travel used for the trip	Not equivalent Q5.13	
6.9	How much did it cost to reach the main destination?	Not equivalent Q5.14	
6.10	Main mode of travel used to return to the usual place of		New question
	residence		
6.11	How much did it cost to return to his/her usual place of		New question
	residence?		

Section 7: General Household Information

No.	Question	2003	2013
7.1	Type of main dwelling	Equivalent Q1.1	
7.2	Total household expenditure in the last month	Equivalent Q1.5	
7.3	Source of income for the household		New question
7.4	Income source that usually provides the most money for the		New question
	household		
7.5	Income from remittances; specify how much they get per month		New question
9.7	Income from pensions or retirement annuities; specify how much		New question
	they get per month		
7.7	Number of bicycles in working order a household owns and uses	Equivalent Q1.7	Question slightly
	for transport		rephrased
8.7	Number of animal-drawn vehicles in working order a household		New question
	owns and uses for transport		
6.7	Do you own animals that can pull animal-drawn vehicles?		New question
7.10	Number of motor vehicles in working order a household has	Equivalent Q1.8	
	available for private use		
7.11	How do members of the household get to the nearest facility of	Equivalent Q1.4	
	kind		

Section 8: Attitudes and perceptions about transport

	;;		
No.	Question	2003	2013
8.1	Transport related problems experienced by the household	Equivalent Q1.2	Response categories are added
8.2	Factors influencing households' choice of mode of travel		New question
8.3	How long does it take in minutes to walk to the nearest taxi rank/route, bus stop/station?	Equivalent Q1.3	
8.4	Main modes of travel used by the household		New question
8.5	Have you used a passenger train in the past calendar month?	Equivalent Q7.2	
8.6	Reasons why you did not use a passenger train in the past calendar month	Equivalent Q7.3	
8.7	Satisfaction about the passenger train service	Equivalent Q7.4	Types of trains are added on the response categories
8.8	Have you used a bus in the past calendar month?	Equivalent Q7.5	
8.9	Reasons why you did not use bus in the past calendar month	Equivalent Q7.6	
8.10	Satisfaction about the bus service	Equivalent Q7.7	
8.11	Have you used a minibus taxi in the past calendar month?	Equivalent Q7.8	
8.12	Reasons why you did not use minibus taxi in the past calendar month	Equivalent Q7.9	
8.13	Satisfaction about the minibus taxi service	Equivalent Q7.10	
8.14	Language used to conduct the interview		New question
8.15	Type of living quarters		New question

Annexure C: Job descriptions of contract staff

- Fieldworker
- Fieldwork Coordinator
- Fieldwork Supervisor
- Lister

Fieldworker: National Household Travel Survey

(Salary Level: Stipend equal to R5 000 per month) (Ref. No.:)

Key performance areas:

- Attend training when required to. If you miss one day's training without proper reason you will be excluded from continuing in the project.
- Do publicity at the sampled primary sampling units (PSUs) and the selected dwelling units (DUs).
- Facilitate cooperation from all households when conducting publicity and enumeration fieldwork.
- Collect data from sampled dwelling units by completing the relevant questionnaires for all households at the sampled dwelling units.
- Submit daily report on completed work to your Fieldwork Supervisor (FWS).
- Handle gueries on the completed guestionnaires referred back to your supervisor.
- Receive all the fieldwork materials (satchel with EA Summary Book, questionnaires, FW manual, bib, stationery) required from your Fieldwork Supervisor.
- Safeguard all materials issued for the purpose of conducting the survey.
- Perform quality assurance checks on all completed questionnaires before handing them over to your FWS.
- Conduct reverse logistics.

Prerequisites:

- A matric certificate, preferably with Mathematics/Accounting
- Experience in conducting surveys and censuses
- Knowledge of data collection and geography
- Knowledge of MS Office Suite
- Valid driver's licence and clean accident record during census and the past year

Person profile:

This position will suit a person with:

- Good interpersonal, communication, report writing, conflict-resolution, interviewing, and decision-making skills;
- The ability to understand diversity and work with people; and
- A willingness to work long hours.

FIELDWORK COORDINATOR National Household Travel Survey

(Salary Level: Stipend equal to R7 000 per month) (Ref. No.:)

Key performance areas:

- Attend training when required to. If you miss one day's training without proper reason you will be excluded from continuing in the project.
- Engage gatekeepers and seek permission to conduct fieldwork in the allocated primary sampling units (PSUs).
- Assist with training of Fieldworkers and Fieldwork Supervisors for whom you are responsible.
- Receive all the fieldwork materials (satchels with EA Summary Books, questionnaires, Fieldworker (FW) manuals, bibs, stationery) required from your Provincial Survey Coordinator (PSC) and ensure distribution to all Fieldworkers and Fieldwork Supervisors for whom you are responsible.
- Your key responsibilities in the primary sampling units (PSUs) allocated to you include the supervision of:
 - Publicity done by FWs/ FWSs;
 - Enumeration done by FWs and FWSs to ensure that all households that are occupying dwelling units in the primary sampling units (PSUs) allocated to them are enumerated; and
 - FWs and FWSs to ensure that all information collected from all households is relevant and accurately captured on the questionnaire.
- Implement all phases of field operations, e.g. publicity, training, collection and quality assurance.
- Compile training report at the end of the training period.
- Compile closure report at the end of the fieldwork period.
- Report progress daily to your PSC.

In addition you will be required to:

- Assist FWs/FWSs with handling of refusals or difficult respondents.
- Do everything to ensure cooperation from all households when conducting publicity and enumeration fieldwork.
- Handle gueries on the completed questionnaires referred back to you by the PSC.
- Do spot-checks in the field to ensure the correct PSUs and DUs are enumerated by FWs/ FWSs.
- Do spot-checks in the field to ensure/confirm vacant/unoccupied/demolished, etc. result codes recorded by FWs/FWSs.
- Observe fieldwork interviews conducted by FWs/FWSs to ensure that questionnaire is administered correctly.
- Re-train FWs and FWSs if problems are experienced with fieldwork procedures or questionnaire completion.
- Conduct detailed planning sessions with relevant stakeholders and staff.
- Develop project plans.
- Assign tasks to staff and monitor execution thereof.
- Monitor and evaluate performance of staff.
- Monitor and manage transport, budget, human resources and survey instruments.
- Attend meetings and write reports.
- Monitor the risk management plan.
- · Manage risks.
- Provide administrative and technical leadership to field staff.

 Perform quality assurance checks on all questionnaires completed and handed to you by Fieldworkers and FWSs, whom you are responsible to monitor, before handing them over to your PSC.

Prerequisites:

- A matric certificate, preferably with Mathematics/Accounting
- Experience in conducting surveys and censuses
- Knowledge of data collection and geography
- Knowledge of MS Office Suite
- Valid driver's licence and clean accident record during census and the past year

Person profile:

This position will suit a person with:

- Good interpersonal skills, communication skills, decision-making skills, report writing skills, conflict-resolution, interviewing skills, organisational, presentation, facilitation, map reading and interpretation skills, leadership skills, language proficiency, presentation skills, strategic thinking, conflict resolution, team player;
- The ability to understand diversity and work with people; and
- A willingness to work long hours.

LISTER

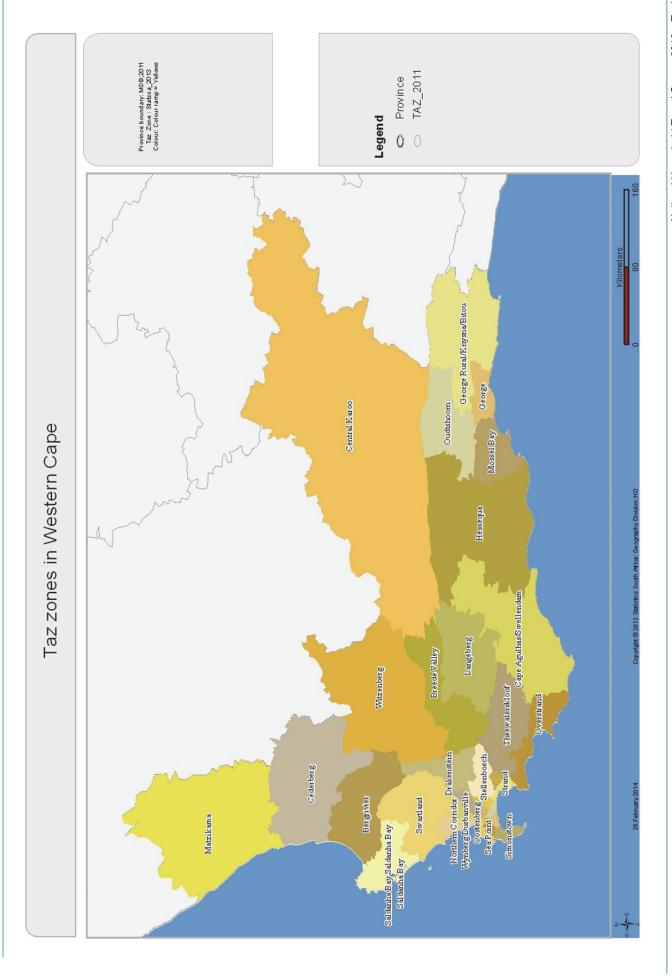
Recruitment criteria:

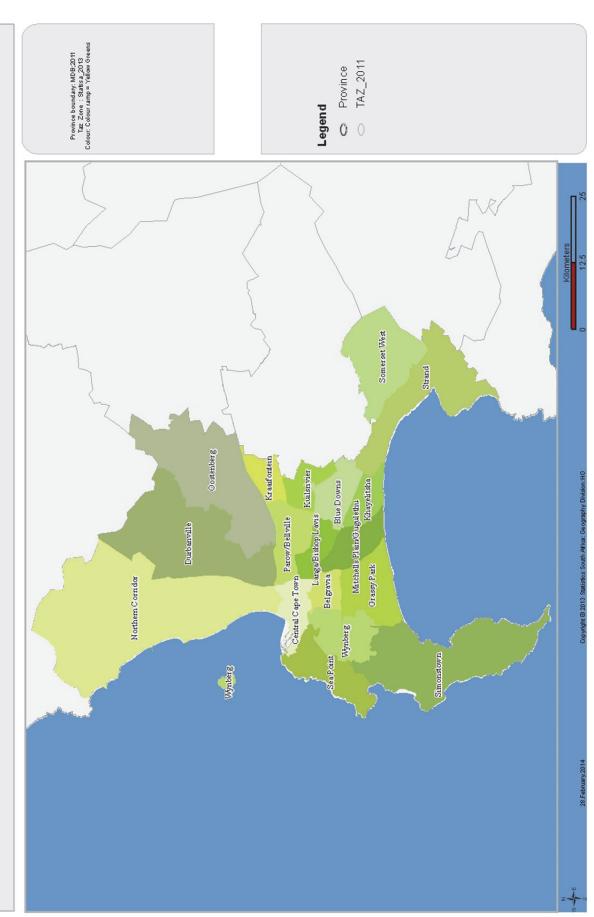
- Matric certificate with Geography as one of the subjects
- Experience in survey and census fieldwork
- Driver's licence for field staff from farms and smallholdings, otherwise it is an added advantage for other EA types
- Recruited from areas where they live

Duties and responsibilities:

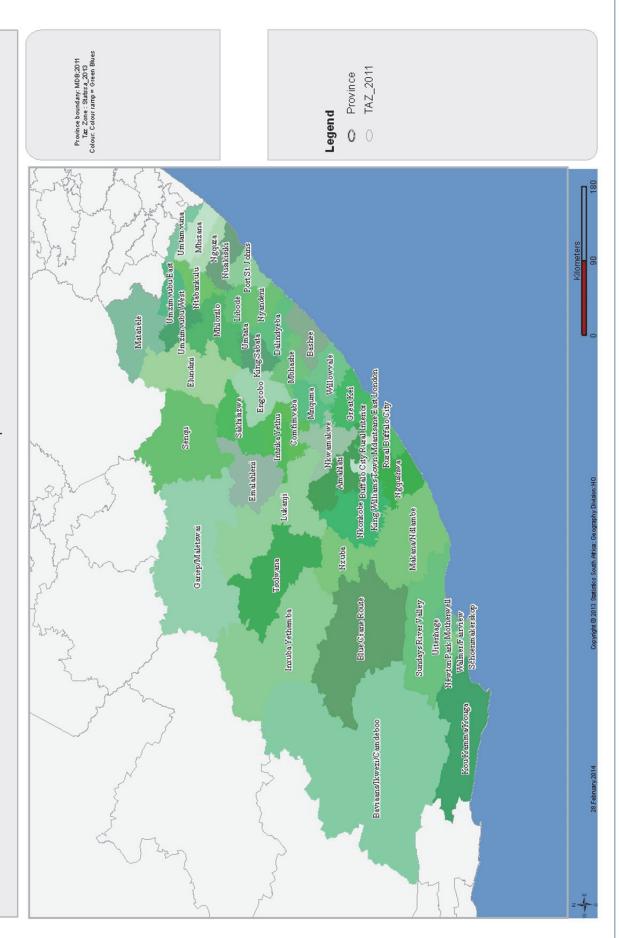
- Find the physical boundaries of the allocated EA;
- Conduct publicity and listing in the allocated EA;
- Visit the allocated EA and conduct publicity and listing following the procedures and instructions
 in the publicity and listing manual to perform fieldwork duties;
- · Conduct map annotations and make field sketches; and
- Complete the EA Summary Book.

Annexure D: Taz zone maps

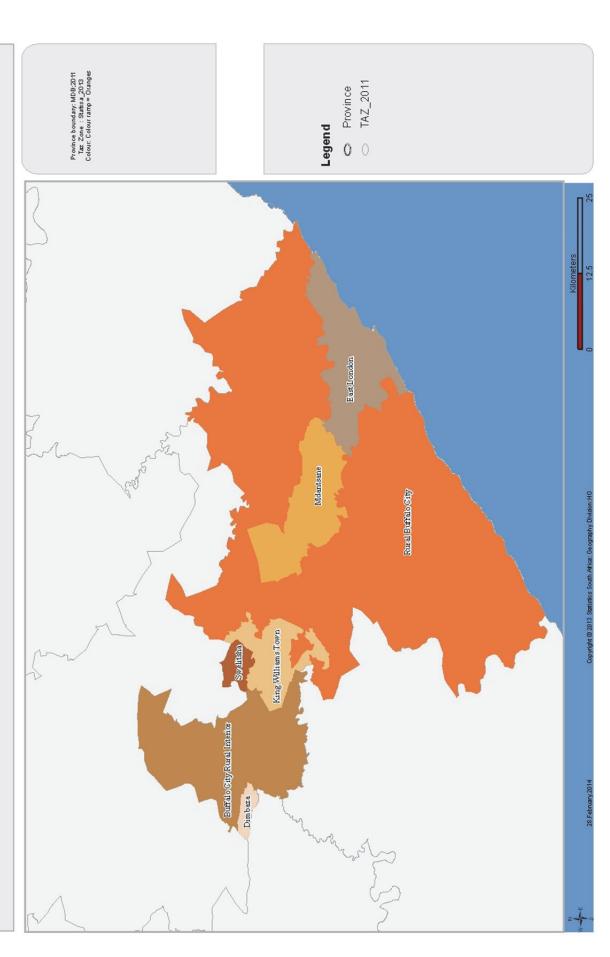


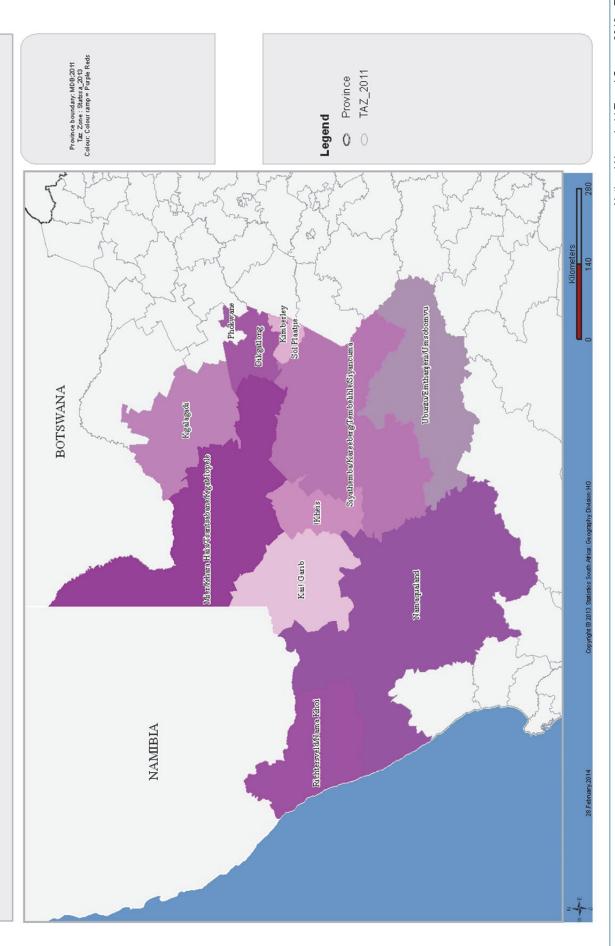


Taz zones in Eastern Cape

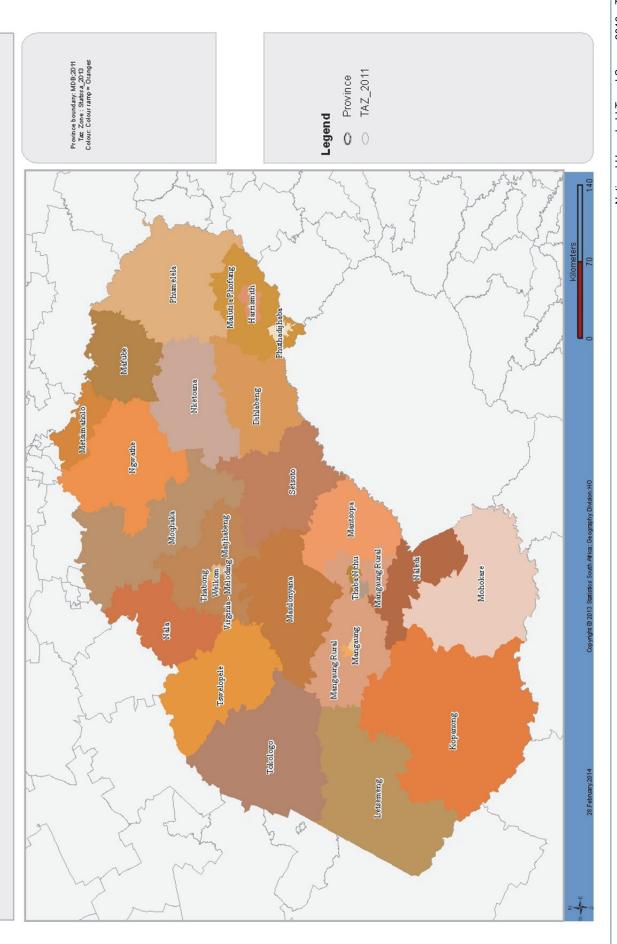




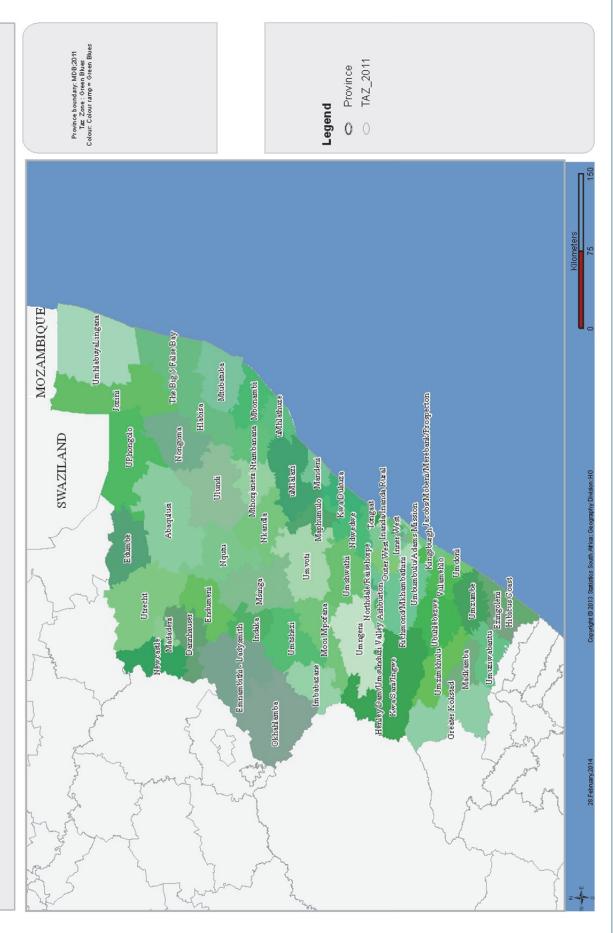




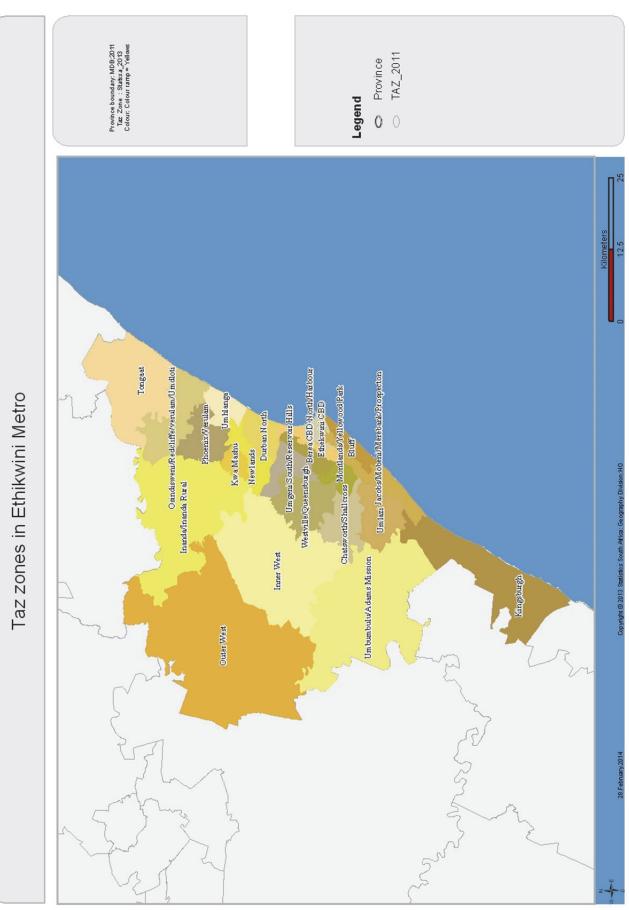
Taz zones in Free State

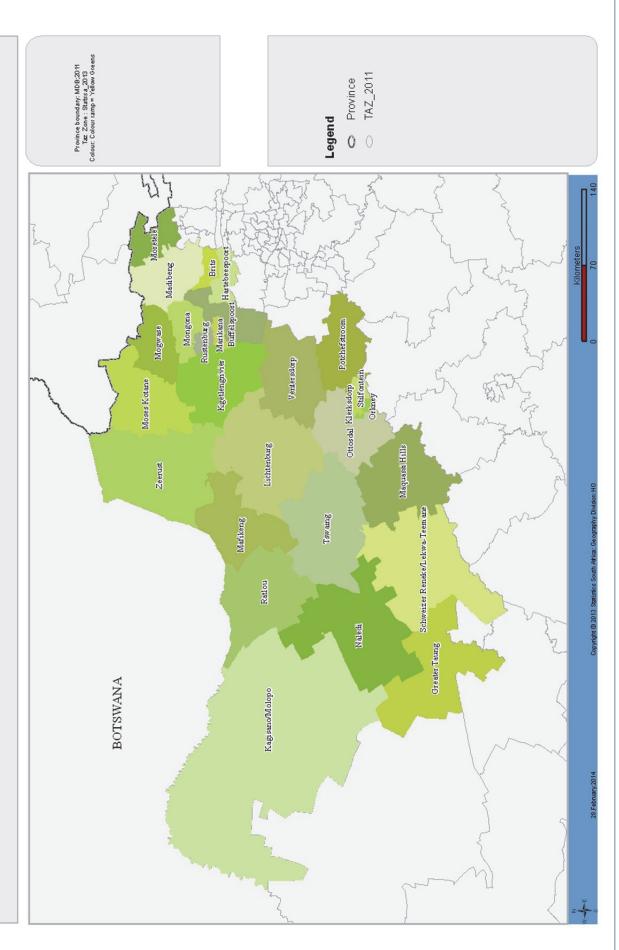


Taz zones in KwaZulu Natal



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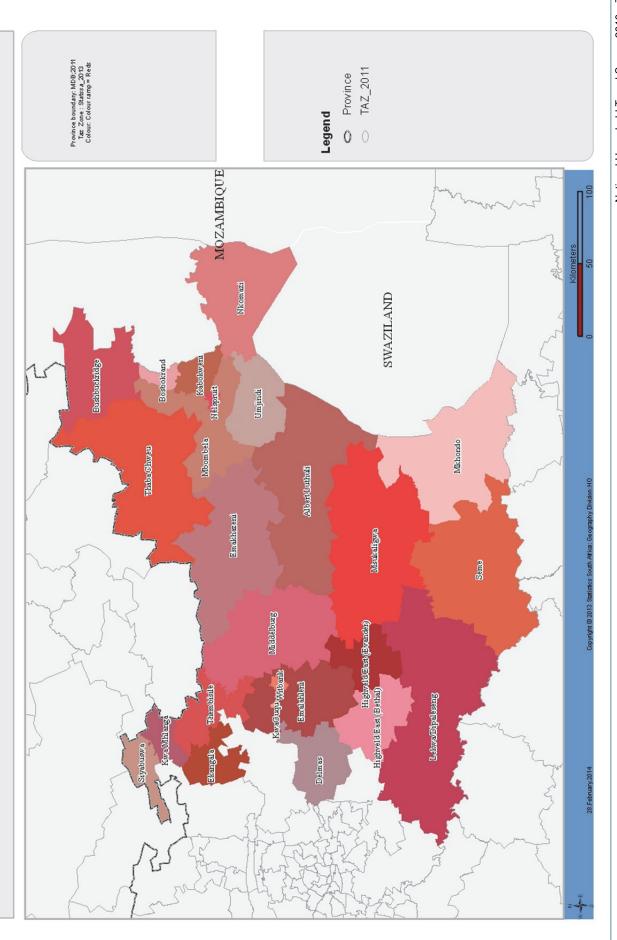




O Province TAZ_2011 Legend Migel Taz zones in Ekhureleni Metro Kwatsaduza Breikpen Bapsfontein Kempton Park Airport Tembisa Natalspruit/Katorus Alberton

O Province TAZ_2011 Legend Taz zones in Johannesburg Metro Modderfonte Midrand Alex andra Northeliff Rosebank Bruma Central Johannesburg Randburg Sandton Turffontein Johannesburg South Fourways Main Reef Roodepoort Ermerdale Soweto Doornkop Orange Farm

Taz zones in Mpumalanga



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