

eTHEKWINI MUNICIPAL WIDE HOUSEHOLD TRAVEL INTERVIEW SURVEY: SURVEY METHODOLOGY

M A van Tonder, S A Kuppan, S M Baker* G Y Moodley and J Meintsma****

Aurecon (Pty) Ltd, P O Box 932, Pinetown, 3600

* Delca Research, Po Box 20933, Durban North, 4016

** Strategic Transport Planning Department, eThekweni Transport Authority, eThekweni Municipality, P O Box 680, Durban, 4000

ABSTRACT

This is the first paper of two that presents the methodology and findings from the eThekweni Municipal Wide Household Travel Interview Survey. This paper covers the organisational structure of the project, the survey methodology and the survey contractor's experiences. The second paper, eThekweni Municipal Wide Household Travel Interview Survey: Travel Behaviour Findings, focuses on the survey results and some interpretation of these results.

This paper has been prepared based on the contents of the "eThekweni Municipal Wide Household Survey 2007 / 2008 Key Findings Report" and "Technical Report" both prepared by Delca Research, under the guidance of Aurecon project management team.

INTRODUCTION

Comprehensive municipal wide travel surveys were last conducted in the eThekweni Municipal area in 1980 and this data was thereafter supplemented with local area based surveys undertaken on an ad hoc basis over the years. The post 1994 democracy accelerated the improvement of the socio-economic status of previously disadvantaged people, widened their choice of travel modes and subsequently their travel patterns. The migration of disadvantaged people from traditional townships and suburbs also changed the demographic profile of the previously advantaged suburbs and also of the higher income suburbs. These fundamental changes to travel patterns within the municipality necessitated an update of the eThekweni Transport Authority's (ETA) transportation planning models to reflect current traffic demands and travel characteristics.

The national Department of Transport released the results of their 2003 National Household Travel Survey (NHTS) in 2006, and it was therefore an opportune time for the ETA to undertake their municipal wide survey. The experience and expertise of the project team that undertook the NHTS were sought during the scoping exercise and planning stages of the eThekweni Household Travel Survey (HTS).

PROJECT MANAGEMENT

MMC Engineers, now merged with Aurecon (formerly Africon), were appointed by the ETA in early 2006 to undertake a scoping exercise for the implementation of the eThekweni HTS. The scoping exercise included the following:

- A review of alternative interview methodologies (internet, email, telecommunications, roadside and household).
- Sample size estimation and distribution.
- Development of a draft questionnaire.
- Estimated survey cost for different sample sizes.
- Preparation of the technical specification for the HTS.

A review of similar surveys, notably the National Household Travel Survey was undertaken as part of the scoping exercise. Chris Roebuck, Professor Emeritus of Transportation Engineering at the University of kwaZulu Natal, undertook a peer review of the scoping exercise process.

MMC Engineers (now Aurecon) was subsequently appointed as the Project Managers to manage and monitor the HTS contract. A formal advertised tender process was followed and, in December 2006, Delca Research was appointed as the survey contractor for the eThekweni Household Travel Survey. Prior to the commencement of the survey process, Delca Research was given an opportunity to review, comment and recommend alternatives to the specified survey methodology, the sample size, sample distribution and questionnaire.

Demographic information for the planning process of the HTS was compiled by the eThekweni Municipality's Geographical Information and Policy Office based on the 2001 Census. The HTS contract was undertaken over a two year period however the actual field surveys were completed within a condensed period of six months.

The principal members of the Project Team comprised of the following officials from the ETA, Aurecon and Delca Research.

ORGANISATION	PROJECT TEAM MEMBER	DESIGNATION	PROJECT TEAM ROLE
eThekweni Transport Authority	Logan Moodley	Deputy Head: Strategic Transport Planning	Project Director
	Jelle Meinstma	Manager: Transportation Planning	Project Leader
Aurecon	Mike van Tonder	Technical Director: Traffic and Transportation Engineering - KZN	Project Manager
	Solly Kuppan	Research Analyst	Assistant Project Manager
Delca Research	Stuart Baker	Managing Member	Survey Manager

The Delca Research survey team consisted of 5 office support staff and 100 field staff, including supervisors. Aurecon enlisted the assistance of Bala Survey and Research to undertake field audits of the surveys. The project effectively commenced in January 2007 has just been completed with the publication of the various reports pertaining to this project currently being undertaken. The project team had a total of 18 progress meeting for the duration of the project.

SAMPLE SIZE, SURVEY AREAS AND DISTRIBUTION

For transportation planning purposes and especially for the transportation modelling process, the eThekweni municipal area is divided into 338 traffic zones. The boundaries of these traffic zones are primarily determined by geographical features (rivers) and the road network, and as far as possible accommodate the planning unit boundaries.

The ideal sample distribution would have been a statistically representative sample from each of these 338 traffic zones however this would have resulted in a sample size of over 50 000 interviews and the exorbitant costs to obtain this size of sample resulted in an alternative approach being followed whereby the traffic zones are consolidated into survey areas as follows:

The eThekweni Municipality is divided into four Spatial Development Framework (SDF) areas according to their urban status as follows:

1. Urban Core
2. Urban Edge
3. Peri-Urban Periphery
4. Rural

For urban planning at local level, the eThekweni municipal area is divided into 406 planning units whose boundaries are based on geographical characteristics and influenced by the former political group areas. The SDF, the planning units and the traffic zones were all used to determine the final survey areas. The SDFs were further divided into 12 sectors according to their geographical position within the eThekweni municipality as indicated below:

1. Urban Core North
2. Urban Core South
3. Urban Core West
4. Urban Edge North
5. Urban Edge North Western
6. Urban Edge South
7. Urban Edge West
8. Peri-Urban Periphery North
9. Peri-Urban Periphery South
10. Peri-Urban Periphery West
11. Rural North
12. Rural South

Heterogeneous planning units within each sector were then grouped together to form a survey area and where possible it was ensured that a whole traffic zone was contained within the respective survey area.

The number of samples per survey area was initially proportionally stratified according to the number of households and thereafter adjusted to ensure the minimum statistical requirement is met.

The 338 traffic zones were finally aggregated into a total of 62 Survey Areas and a total sample size of 15 000 households was calculated as being statistically acceptable. The total sample was then distributed over these survey areas to ensure that analysis by area would yield statistically reliable results.

QUESTIONNAIRE

The questionnaire was extensive and covered all aspects of household demography including categories of employment, and all aspects of daily travel by each member of the household including off-peak trips.

During the scooping exercise, draft questionnaires were repeatedly tested and refined, and the 12th Draft of the questionnaire was included in the specification for the HTS contract. The final questionnaire used by Delca Research for the survey was the 15th version as further changes were made during interviewer training and the pilot study of the survey contract. The final questionnaire used for the HTS is attached in Annexure A.

SAMPLE DESIGN AND HOUSEHOLD IDENTIFICATION

A two-stage sample design was used by the contractor where Primary Sampling Units (PSUs) were chosen at the first stage of sample selection, and households were chosen from within each of the selected PSUs at the second stage. As Enumerator Area information was unavailable from Statistics SA due to issues of confidentiality the primary sampling unit was defined as a Census 2001 Small Area Layer (SAL). This is a geographic layer that comprises a large enough population to reduce the risk of the possible identification of individuals. The creation of the small area layer was based on the principle of merging individual Enumerator Areas (EA). An EA was only merged if its population was less than 500 persons. The comparative totals of EAs, and SALs for KwaZulu-Natal clearly indicates that the SAL provided a viable tool for intra-area sampling.

- Number of EAs in KZN 12752
- Number of SALs in KZN 10166
- Percent of Small Area Layers 80%

For practical and economic reasons, households were not drawn randomly from each SAL layer within each survey area. Rather a sample of small area layers was selected from each survey area with probability of selection equal to population size. There is a standard statistical procedure for probability proportional to size sampling (pps). The chance of an SAL being selected depends on its population size. The larger the SAL in household terms the higher the likelihood that it was selected into the sample. This compensates for the fact a household from a large SAL will be less likely to be selected from that SAL, than a household in a smaller SAL.

From a sampling point of view, it is better to sample more SALs with a smaller number of households selected from each SAL. This ensures that the sample is sufficiently well spread across enough SALs so that the survey estimates are not unduly influenced by only a handful of SALs. There are 3357 SALs in the eThekweni municipal area and 1354 (40.3%) were included in the survey. This ensured that a workable number of households were selected from each SAL.

Households to be sampled were selected using a combination of aerial photography and land parcel maps available on the eThekweni GIS system.

In most formal areas specific addresses were generated for sampling purposes. In informal areas supervisors were given aerial photographs of the area which had a simple grid superimposed over it and a specific number of interviews had to be done in each cell of the grid. The more densely populated cells in the grid required proportionately more interviews. In the rural areas the procedure was similar to the informal areas except only areas that were easily accessible from the road were included in the grid. This did not unduly influence the representivity of the sample in these areas as most dwellings are not located too far from the road network.

TRAINING

Training was undertaken by a professional training contractor together with Delca Research staff. The training was based on an interviewer and supervisor manual that Delca Research developed. A member of the project management team also monitored the quality of the training and contributed at these training sessions.

A three day training programme took place first which all prospective interviewers, supervisors and coordinators attended. The course comprised five modules covering:

- The background to the EHTS, its purpose, basic concepts and definitions.
- An overview of what was required from interviewers.
- Conducting the interview and question by question instructions.
- Role play and practical exercises to provide the trainees with practical experience as well as to assess their ability to conduct the interview to the high quality standards required.
- A written knowledge test.

Only those trainees who passed the knowledge test and had performed the role play exercises to an acceptable standard were offered employment. Those trainees who showed greatest potential undertook a further one day's training to equip them to act as supervisors or coordinators.

CALL CENTRE

Throughout the field work a call centre was manned by an English and Zulu speaking operator to field any further questions that prospective respondents might have with regard to the survey that had perhaps not been adequately addressed by the interviewer.

In particular, it was envisaged that prospective respondents might want confirmation with regard to the bona fides of the interviewers.

Given the crime levels that exist, respondents were often apprehensive about allowing someone into their home in the early evening and hence most calls received were from respondents who wanted confirmation that the survey was genuine.

FIELD WORK PROCEDURE

The study was designed to elicit the travel habits of household members on a typical weekday. This was achieved by undertaking interviews only on Tuesdays through Fridays and asking household members to describe their travel behaviour on the previous day. Interviews were only done in the late afternoon and early evening (from 16:00 to about 20:00) to limit the extent of proxy information.

No interviews were done during days of abnormal travel behaviour. This included strike days and school holidays or in the weeks immediately preceding school holidays when normal school hours were not kept when pupils were writing tests or on days following public holidays when travel behaviour would differ from the norm.

The fieldwork was therefore undertaken in a series of five cycles spanning 98 survey days. On average, the field workers interviewed slightly less than 160 households per day. The average interview duration was 17 minutes.

QUALITY CONTROL

The field force comprised small teams of typically four interviewers accompanied by a supervisor. This group was managed by a coordinating team based at head office that was responsible for coordinating the fieldwork and ensuring quality control by monitoring the work of the supervisors and interviewers.

The supervisors were responsible for ensuring that:

- The team members called on their assigned addresses and for recording the GPS coordinates for each household interviewed.
- Interviewers only undertook interviews on the assigned days and between the assigned hours.
- Each questionnaire was fully completed.
- All addresses were zone coded
- Each questionnaire was checked for consistency and accuracy.

At the start of the first fieldwork cycle, the supervisors accompanied each interviewer in their team and observed them interviewing in at least two households to ensure that interviewers undertook the interviews correctly.

If the head of household or a household member knowledgeable about the household was not at home an interviewer would make an appointment to revisit the household. An interviewer would call his supervisor for assistance when a household refused to participate. In those instances where the household was still not persuaded to participate the household was substituted.

The supervisors reported to the coordinators at head office on a weekly basis. Upon returning questionnaires, all questionnaires were checked again by the coordinators who also then checked that the team had covered all the households they had been allocated. The coordinators also telephone back checked a 10% sample of each interviewers' returned questionnaires. Any errors that were detected were then attended to by the supervisor / interviewer and where necessary respondents were contacted telephonically to resolve these errors.

As a further quality control measure the Aurecon project management team drew a random sample of completed questionnaires which were then checked and validated including further telephone back checks. Care was taken, however, not to telephone back check a respondent that had already been telephone back checked.

These checks highlighted the need to brief the supervisors on an ongoing basis to reinforce aspects of the interview process with their team members

In total, 93 questionnaires (0.6%) returned by the field workers were eventually rejected outright. Reasons for rejection included:

- Interview done before 16:00,
- Interviewed respondent under 18 years of age,
- Interviewed the domestic worker in the home,
- Respondent refused to disclose trip information and / or information regarding household members; and
- Interview done at the wrong address.

FIELD WORK EXPERIENCES

The survey field work was completed within 6 working months although the actual period over which the surveys were conducted extended well beyond 6 months due to school holidays, public holidays, special events, political activity and inclement weather days.

There was generally good co-operation from all income groups however the low and middle income groups were much more co-operative than the high income group. In both the middle and high income groups the contractor did experience difficulty in gaining access to households. In these areas a pre interview visit was made or if this was not possible, a leaflet was posted in the identified households' post box explaining the purpose of the interview and indicating that an interviewer will be contacting them. Only one incident of intimidation and one incident of theft (cell phone and bib) from an interviewer were reported. Upon a high profile or widely reported incident of crime occurred, there was very little co-operation from households within the area that the crime occurred and interviews had to be rescheduled.

Notwithstanding the fact that Statistics SA has also been fairly active with household interviews, interview survey fatigue did not seem to be an issue raised much by interviewees.

Pre-survey publicity in print media, on street light poles and a "Fast Facts" leaflet which is attached as Annexure B assisted with the general co-operation of households.

CONCLUDING REMARKS

The eThekweni Household Travel Survey was successfully completed within the contract budget albeit slightly longer than the original 9 month contract period due largely to unforeseen circumstances beyond the control of the contractor. These unforeseen delays extended the duration of the field work by significantly longer than anticipated. It took time to get the contractor's office bound team structure to operate efficiently and to ensure that the contractor's internal management system was effective.

The required number of interviews were achieved and validated including field survey audits and a detailed auditing process by the project management team.

There was generally good co-operation from most households and the reliability of the information, even that received by proxy has been tested for logic acceptability. There were very few incidents of crime against the field survey team.

Questionnaire Number

--

eTHEKWINI TRANSPORT AUTHORITY



HOUSEHOLD TRAVEL SURVEY 2007

	Name	Signature	Date
Interviewer			
Field Supervisor			
Field Back Check face-to-face			
Field Back Check phone			
Coded by			
Edited by			
Office Check – coding			
Office Check – editing			
Data Capture			
Data Verification			
Data Capture validation			

1.1		Original Household				Substitute Household			
1.1.1	Popular or informal name of suburb including name of township or farm or tribal authority (if applicable)								
1.1.2	Street Address / Site Number								
1.1.3	Dwelling number	New		Old		New		Old	
1.1.4	Plot number								
1.1.5	Ward number								

1.1.6	Latitude									S
1.1.7	Longitude									E

Visit No.	Date	Time		Result	Next Visit Date
		Start	End		
				1 = complete 2 = partly complete 3 = refused 4 = vacant dwelling 5 = other 6 = non contact	
1					
2					
3					

For Office Use

Sub area layer		Domain		Traffic zone	
----------------	--	--------	--	--------------	--

INSTRUCTIONS TO FIELDWORKER

- Ask to speak to the person responsible for the household and who lives permanently there. He or she need not be the head of the household
- All questions should have a response code. i.e. there should be no blanks. The following codes apply:
 - Not applicable = N/A
 - Don't know = D/K
 - Nil / Zero/ Nothing = 0
 - Refused to answer = R
- Assure respondent of confidentiality of the research.
- Wear id tag and bib at all times. Should respondent wish to verify that you are a bona fide interviewer, suggest that the respondent phone 031 3122606 during office hours. Outside of normal office hours the respondent may phone Stuart Baker (0836288993), Nonte Chala (0839554721), Solly Kuppen (083 7778738) or Mike Van Tonder (082 4617353)

1.2 How many different families who arrange their own food (do not eat from same pot) live in this household or in the back yard?	
--	--

IF MORE THAN ONE: WRITE IN HOUSEHOLD IDENTIFICATION BELOW. LIST HOUSEHOLDS ACCORDING TO DISTANCE FROM MAIN HOUSEHOLD. NB: AS CAN BE SEEN, THE MAIN HOUSEHOLD IS ALWAYS CONSIDERED TO BE NUMBER 1. FOR THE OTHER HOUSEHOLDS, PLEASE WRITE IN SOME DESCRIPTION THAT WILL ENABLE BOTH YOU AND THE CHECKBACK PERSON TO IDENTIFY THE HOUSEHOLD		
Household	Family Name	Description
No.1	Main household	
No.2	(Closest to No.1) (Can be inside of main dwelling)	
No.3	Second closest	
No.4	Third closest	
No.5	Fourth closest	
No.6	Fifth closest	
No.7	Sixth closest	
No.8	Seventh closest	
No.9	Eighth closest	
No.10	Ninth closest	
No.11	Tenth closest	
No.12	(Furthest away from No.1)	

Use grid to select at which household to conduct the interview

INTRODUCTION


Good (morning/afternoon/evening). I am (Interviewer) from Delca Research. We are conducting an interview survey on behalf of the Ethekwini Municipality. The purpose of the survey is to obtain reliable travel characteristics of residents in the municipal area. This information will be used for public and private transport planning in order to better meet your travel needs. Your household has been randomly selected to participate in the survey. I would be very grateful if you can spare some of your time and respond to questions I would like to ask. **Your response will, of course, be treated confidentially and anonymously.** I have with me a letter of introduction from the Municipality if you would like to see it. A report will be compiled in such a way that your responses cannot be traced back to any individual.

SECTION 2 – HOUSEHOLD INFORMATION

2.1	Type of Main dwelling that the household occupies		Main dwelling
	1 = Formal dwelling or brick structure on a separate stand or yard or on a farm 2 = Hut/structure made of traditional materials 3 = Flat or apartment in a block of flats (2 or more storeys) 4 = Town/cluster/semi-detached house (simplex, duplex or triplex) 5 = 2 nd formal dwelling in yard/plot 6 = Informal dwelling/shack in backyard 7 = Informal dwelling/shack not in backyard eg in informal/squatter settlement or on farm 8 = Other Specify.....		

2.2	How many of the following motorised vehicles in running order does this household have available for private use? Do not include tractors			
2.2.1	Motorcycle/scooter		2.2.4	Car/bakkies/station wagon/4x4s owned by the employer/company
2.2.2	Minibus/kombi		2.2.5	Car/bakkies/station wagon/4x4s owned by the household/relatives/friends
2.2.3	Trucks		2.2.6	Other Specify.....

2.3	How many of the following “non-motorised” vehicles that are used for travel purposes, does this household own? (Do not record if vehicles are only used for recreational purposes)			
2.3.1	Bicycle		2.3.2	Horse & carriage
			2.3.3	Other Specify.....

2.4	Do you employ any full time domestic workers in your household (maid, man-servant, nanny, nursemaid, butler or gardener)?		
	Yes		
	No		If “No” go to Q2.6

2.5	How many live on the property (stay at least 4 nights/week) and how many travel daily?			
2.5.1	Number living in?		2.5.2	Number travelling daily?

2.6	Respondent telephone /cell phone number and name	Landline													
		Cell													
	Assure respondent that this is required only for quality assurance purposes. A quality control officer may phone from the office to confirm certain details of the survey	Name													

SECTION 3: FIELDWORKER: ROSTER TO BE FILLED IN ONLY FOR THOSE PEOPLE RESIDENT IN THAT HOUSEHOLD FOR AT LEAST 4 NIGHTS ON AVERAGE/WEEK FOR THE LAST 4 WEEKS

Q3.1 Proxy Yes=P	Q3.2: Name? Fieldworker to enter first names of all the household members	Q3.3: Age? In completed years Raw number Less than 1 year = 0	Q3.4: Race? 1 = African 2 = Indian 3 = Coloured 4 = White 5 = Other	Q3.5: Relationship to the head? 1 = Household Head 2 = Spouse /life partner 3 = Son 4 = Daughter 5 = Other family member 6 = Non-family member	Q3.6: Gender? M = Male F = Female	Q3.7 Limited in daily travel activities due to any disability? 1 = No 2 = Sight 3 = Hearing 4 = Physical 5 = Mentally handicapped 6 = Multiple disabilities 7 = Other	Q3.8: Employment status? 1 = employed – formal not from home 2 = employed – informal not from home 3 = self employed not from home but working 4 = any of 1-3 above from home 5 = unemployed 6 = scholar/student 7 = not economically active	Q3.9: Ask only if Formally Employed Economic Sector? 1 = Manufacturing 2 = Wholesale/Retail 3 = Construction 4 = Financial & business services 5 = Electricity/water supply 6 = Government/municipal 7 = Personal Services 8 = Transport/storage/ communications 9 = Other	Q3.10: Ask only if Formally Employed Occupational category? 1 = Unskilled 2 = Semi-skilled 3 = Skilled worker 4 = Highly skilled	Q3.11 Interviewer to read out the question as given at the bottom of this page Monthly cost	Q3.12 Personal Monthly Income Category (Use show card) 1 = no income 2= R1 – R400 3= R401 – R800 4= R801 – R1600 5= R1601 – R3200 6= R 3201 – R6400 7= R6401 – R12800 8= R12801 – R25600 9 = R25601– R51200 10= R51201 –R102400 11= R102401 or more 12= Response not given	
				Household Head								

3.11	ASK: What is the usual monthly expenditure by that household member on taxi, bus, train and lift clubs in Rands
3.12	What is the income category that best describes the gross monthly income of the person before deductions and including all sources of income

SECTION 4 TRIP INFORMATION

In Section 4 record trip information for every person in the household who is a regular traveler (typically makes trips at least 3 times a week). Identify those household members who are regular travelers and record their respective person number and name. Ask each household member to describe yesterday's actual travel patterns.

4.2	Where did the trip start? Please give the name of the place and detailed address if it was not your home (number, street, suburb)
4.3	At what time did you start this trip? Use 24 hour clock
4.4	What were you doing (your purpose) at the origin? Code as "Purpose From" (See table below)
4.5	Where did the trip end? Please give the name of the place and detailed address if it was not your home (number, street, suburb)
4.6	What were you doing (your purpose at the destination) when you arrived there? Code as "Purpose To" (See table below)
4.7	At what time did you arrive at your destination? Use 24 hour clock
4.8	Was your major type of travel for this trip public transport, a privately owned vehicle or walk?
4.9	If the response to Q4.8 is "used public transport" ASK: Was a privately owned vehicle available at the origin to make this trip?
4.10	Did you stop along the way merely to change transport?
4.11	What type of transport did you use or did you walk for the trip/first leg of the trip? (Ignore walk if this took less than 10 minutes or was less than one kilometre in distance) (Use table below to code)
4.12	Where did you change transport for the second part of the trip? Please give the name of the place and detailed address including street number, street name or rank/station name
4.13	What were you doing (your purpose) at this intermediate stop? Code as "Purpose To/From" (Use table below)
4.14	What type of transport did you use or did you walk for the second leg of the trip? (Ignore walk if this took less than 10 minutes or was less than one kilometre in distance) (Use table below to code)
4.15	Where did you change transport for the third part of the trip? Please give the name of the place and detailed address
4.16	What were you doing (your purpose) at this intermediate stop? Code as "Purpose To/From" (Use table below to code)
4.17	What type of transport did you use or did you walk for the third leg of the trip? (Ignore walk if this took less than 10 minutes or was less than one kilometer in distance) (Use table below to code)

<p>Q4.4, Q4.6, Q4.13 and Q4.16 Purpose To or From</p> <p>1 = Home 2 = Work 3 = Firm's business 4 = School or college 5 = Serve a passenger 6 = Shopping 7 = Social/recreational 8 = Looking for work 9 = Change mode 10 = Other Specify in trip section 11 = Medical purposes</p>	<p>Q4.11, Q4.14 and Q4.17 Transport Mode</p> <p>1 = Walk 2 = Train 3 = Bus 4 = Taxi 5 = Private transport as driver 6 = Private transport as non paying passenger 7 = Private transport as paying passenger 8 = Commercial vehicle 9 = Motor cycle 10 = Bicycle 11 = Other</p>
--	--

Person No.	Person Name	4.1 Trip No.	4.2 Origin	4.3 Depart Time	4.4 Purpose From	4.5 Destination	4.6 Purpose to	4.7 Arrive Time	
4.8 Mode Private=1 Public=2 Walk = 3	4.9 Car Available 1=yes 2=no	4.10 Multiple Modes 1=yes 2=no	4.11 1 st Mode	4.12 1 st Intermediate Stop	4.13 Purpose to/from	4.14 2 nd Mode	4.15 2 nd Intermediate Stop	4.16 Purpose to/from	4.17 3 rd Mode

Person No.	Person Name	4.1 Trip No.	4.2 Origin	4.3 Depart Time	4.4 Purpose From	4.5 Destination	4.6 Purpose to	4.7 Arrive Time	
4.8 Mode Private=1 Public=2 Walk = 3	4.9 Car Available 1=yes 2=no	4.10 Multiple Modes 1=yes 2=no	4.11 1 st Mode	4.12 1 st Intermediate Stop	4.13 Purpose to/from	4.14 2 nd Mode	4.15 2 nd Intermediate Stop	4.16 Purpose to/from	4.17 3 rd Mode

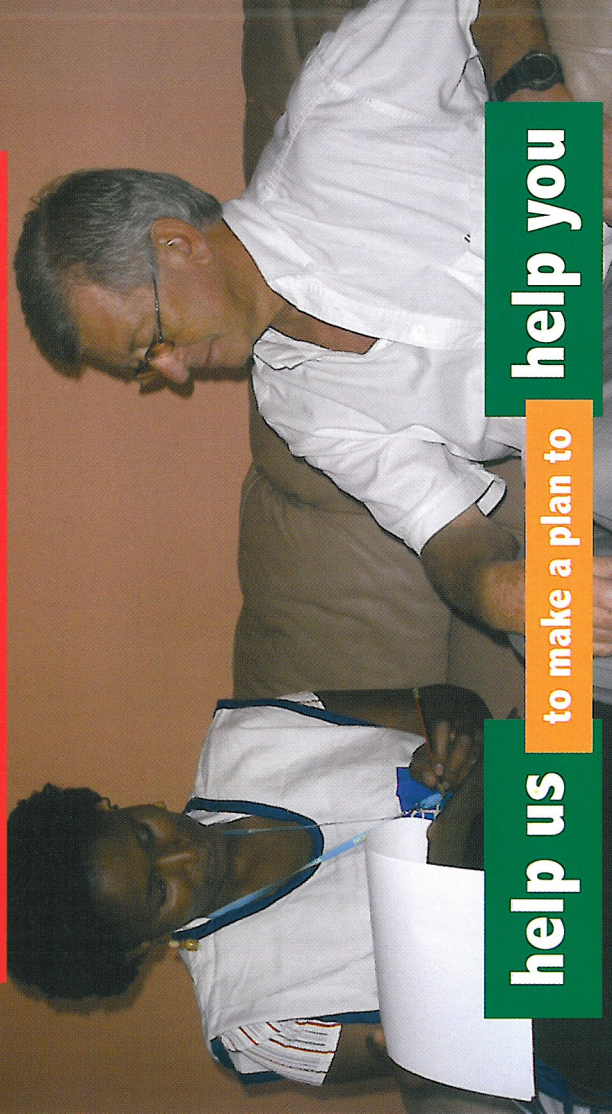
Person No.	Person Name	4.1 Trip No.	4.2 Origin	4.3 Depart Time	4.4 Purpose From	4.5 Destination	4.6 Purpose to	4.7 Arrive Time	
4.8 Mode Private=1 Public=2 Walk = 3	4.9 Car Available 1=yes 2=no	4.10 Multiple Modes 1=yes 2=no	4.11 1 st Mode	4.12 1 st Intermediate Stop	4.13 Purpose to/from	4.14 2 nd Mode	4.15 2 nd Intermediate Stop	4.16 Purpose to/from	4.17 3 rd Mode

QUALITY CONTROL RECORD SHEET

QUALITY CONTROL			Description of problem	CORRECTION		CORRECTION CHECKED	
Date	Name	Question number		Date	Name	Date	Name

Questionnaire No.				Number of Households at visiting point											
				2	3	4	5	6	7	8	9	10	11	12	
01	26	51	76	1	2	3	3	2	4	6	4	7	5	3	
02	27	52	77	1	2	1	4	6	3	5	6	3	1	5	
03	28	53	78	2	1	3	1	3	2	6	2	1	3	7	
04	29	54	79	2	3	4	2	2	6	7	7	3	3	4	
05	30	55	80	1	1	3	2	4	1	3	5	8	6	5	
06	31	56	81	1	1	2	5	1	7	2	3	2	1	11	
07	32	57	82	2	3	1	3	2	7	5	6	5	7	7	
08	33	58	83	1	1	3	1	4	5	3	1	6	2	9	
09	34	59	84	2	2	1	5	3	6	4	3	4	6	2	
10	35	60	85	2	3	2	4	1	4	7	8	2	5	6	
11	36	61	86	1	3	2	5	4	1	3	8	1	3	8	
12	37	62	87	1	3	4	3	1	2	2	3	4	8	3	
13	38	63	88	1	1	4	3	4	3	8	7	7	11	1	
14	39	64	89	2	3	3	1	6	5	1	5	9	10	3	
15	40	65	90	1	2	4	1	3	3	6	9	10	11	12	
16	41	66	91	1	2	1	4	2	7	6	9	3	5	11	
17	42	67	92	2	3	2	1	3	5	8	6	2	4	2	
18	43	68	93	1	1	4	5	6	3	5	7	5	9	8	
19	44	69	94	2	2	1	3	5	2	8	9	10	4	9	
20	45	70	95	2	1	4	2	6	4	1	4	8	9	10	
21	46	71	96	1	2	3	4	2	6	4	2	3	2	12	
22	47	72	97	2	3	2	5	6	2	2	1	9	10	1	
23	48	73	98	2	1	1	4	1	4	1	4	6	3	6	
24	49	74	99	2	2	2	3	5	6	7	8	7	1	4	
25	50	75	100	1	2	3	2	5	1	4	2	1	7	10	

Frustrated with the traffic or public transport?

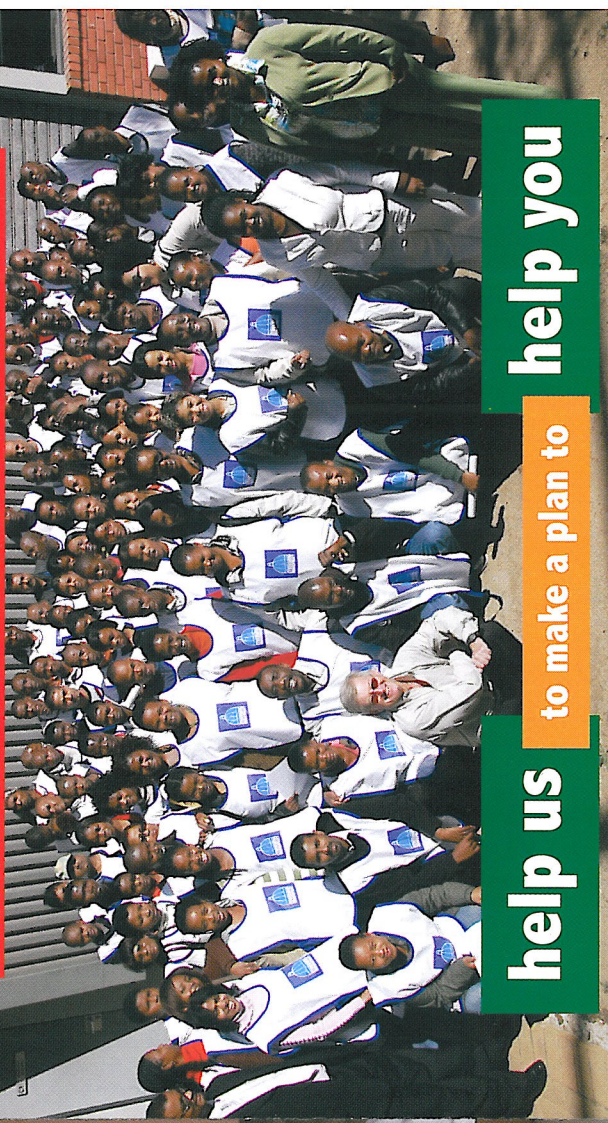


help us

to make a plan to

help you

Frustrated with the traffic or public transport?



help us

to make a plan to

help you

1

Survey Contractor: Delca Research 031 312 2606

Survey Manager:	Stuart Baker	083 628 8993	delca.kzn@iafrica.com
Survey Co-ordinator:	Zinhle Mtambo	072 585 6884	
Survey Co-ordinator:	Vino Naidoo	074 315 3027	
Survey Co-ordinator:	Mandla Mtambo	082 567 6154	
Survey Co-ordinator:	Nonte Chala	083 955 4721	

2

Project Manager: MMC Engineers 031 312 2525

Project Manager:	Mike van Tonder	082 461 7353	mike@mmcgroup.co.za
Assistant Project Manager:	Solly Kuppen	083 777 8738	solly@agq.co.za

3

eThekweni Transport Authority 031 311 7241

Senior Transport Economist:	Andrew Kirby	083 246 3260	kirbya@durban.gov.za
Manager Transport Planning:	Jelle Meinisma	083 272 0304	meintsmaj@durban.gov.za
Deputy Head Strategic Transport Planning:	Logan Moodley	083 284 9260	moodley@durban.gov.za



eThekweni Transport Authority

Household Travel Survey

Fast Facts

Call Centre: 031 312 2606 from 08:00 to 21:00

Frustrated with the traffic or public transport?

help us

to make a plan to

help you

The **eThekweni Transport Authority (ETA)** is currently conducting a municipal wide household travel survey to update demographic and travel data in order to obtain reliable travel characteristics for the municipal area. The ETA has appointed **MMC Engineers** as the **Project Manager** to manage and monitor the survey, and **Delca Research** as the **Survey Contractor** to conduct the survey. The household travel survey interviews will be conducted during the school term only; specifically on Tuesday, Wednesday, Thursday and Friday evenings between 16:00 and 21:00. Interviewers will be wearing a bib with the municipal logo and carrying special interview survey identification cards. 15 000 (fifteen thousand) households have been randomly selected to participate in this survey. All information will be treated **confidentially** and all analysis will be undertaken at an area level.

The results of this survey will facilitate the determination of **future transportation policies** and will also assist in the planning process of roads, traffic and transport infrastructure.

The main objectives of the survey are:

- **To obtain origin – destination trip data between the different areas by the mode of transport**
- **To update socio-economic data and measure existing car ownership for the different income groups, and**
- **To update the split of different modes of travel and assess public transport services demand**

As part of the quality control process, the Survey Contractor and/or the Project Manager might want to confirm whether the respondent has been interviewed and to verify their responses to the questions. The respondent may be contacted and it is therefore important to obtain the respondent's **contact details** to enable the Project Team to conduct quality checks.

All enquiries may be directed to the **Call Centre**. In the event of no reply or unsatisfactory responses, the Survey Contractor's representative may be contacted as listed on the back cover in order of contact preference. The Project Manager or the ETA may be contacted telephonically for urgent enquiries.

Frequently Asked Questions

We are aware that some questions are sensitive, and therefore you may be hesitant or concerned to answer these questions. Apart from assuring you that the all information will be treated **confidentially** as we have a strict code of conduct with the Survey Contractor, we would like to explain the reasons for some of the questions. If you require any **further details** for other questions or not satisfied with the explanation given by the interviewers, please contact the **Call Centre at 031 312 2606** or one of the Project Team members listed overleaf.

Why do you need to know how many vehicles are in our household?

Household **vehicle availability** and **traffic flow** statistics are **key research** inputs to the transport planning process. Traffic statistics are obtained by undertaking traffic counts at various major intersections and transport corridors. The number of vehicles available to households within the various suburbs in the municipality, however, is estimated from a traffic forecasting model based on demographic and socio-economic data. In order to ensure that this data is as **accurate** as possible this information needs to be collected by means of surveys and hence the question in this particular household travel survey.

Why do you need our income details?

Due to our country's history of racial segregation, previous research for planning purposes was based on race groups which were spatially separated within the city. As both the residential suburbs and the various races are becoming increasingly integrated, we have now moved away from this race based classification to socio-economic status categorised as **low, middle** and **high** income groups. The various income groups have very different travel characteristics. Your income details will therefore assist us in determining what **socio-economic status group** you belong to and relate this to how you travel to and from work for example. Further, previously obtained research data which were race based need to now be reclassified into income groups, and as part of this exercise it is essential that we have your income details to facilitate this reclassification.

Why do you want to know what time I leave home and arrive at work?

Public transport, affordability and availability of private vehicles, traffic congestion, security concerns, freedom of choice of residential areas, the development of business and office parks outside of the traditional CBD, extended business hours and the virtual office have all influenced our travel patterns. Both the **travel habits** and **journey times** of all income groups have therefore changed drastically over the last decade, and thus the travel pattern data that is available for planning purposes is now outdated. To plan effectively it is essential to have the latest travel patterns and time of travel as some of the key factors that assist us in planning road network requirements.