Climate Change and Transport Choices

Segmentation update

March 2014

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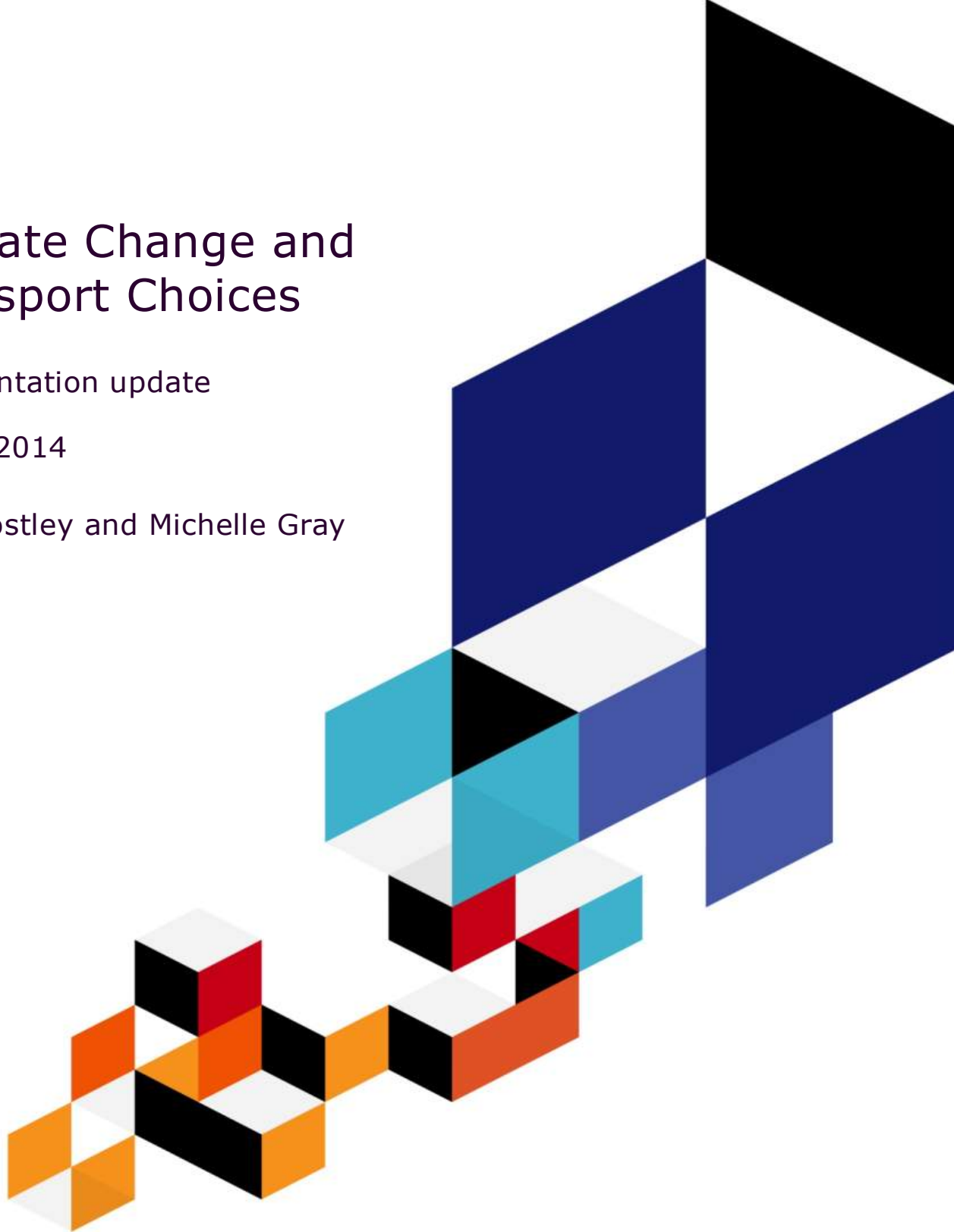
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1. Background

Since 2006, the Department of Transport (DfT) has been implementing a research programme to further understand how individuals' attitudes influence their travel behaviour. The Department for Transport undertook a study in 2009-2010 which generated a segmentation of the English population based on their attitudes towards climate change and transport choices. This segmentation was derived from statistical analysis of data from a nationally-representative survey of adults resident in England.

The survey was conducted by TNS-BMRB between November 2009 and June 2010. All 3,923 interviews were carried out in respondents' homes using face-to-face computer-assisted personal interviewing (CAPI) technology. and lasted an average of 45 minutes.

The subsequent analysis identified nine distinct segments. These were then refined following a series of qualitative focus groups amongst respondents who were recruited to represent seven of the nine segments. The findings of this report were presented in 2011.

This report documents the findings from a survey undertaken in September 2013 which was commissioned by the DfT to test the continuing validity of this segmentation. This recent study also aimed to determine whether a set of 'golden questions' used to allocate an individual to the correct segment with an acceptable level of accuracy – around 70-80% - were still effective . As per the original study, different sets of questions were used to segment car-owners and non-car owners; 10 questions for the car owning segments and 11 for the non-car owning segments.

1.1 Sample Profile

A sample of 3,492 respondents were interviewed between 4–10 September 2013 on the TNS in-home Omnibus survey and the survey data was weighted to ensure that this sample was representative of the English adult population in terms of the key demographic characteristics – including gender, age group, working status, region of residence and social grade. A copy of the questions used in the survey is attached to this report as an Appendix along with details of the sampling procedure applied to the Omnibus survey.

1.1 Data Collection

It should be recognised that whilst both surveys were conducted by means of an in-home personal interview with a representative sample of the English adult population, the 2013 survey was part of an Omnibus survey, involving the application of certain demographic quota controls in recruiting the sample of respondents. The survey was conducted across a two week period and the questions were part of a wider range of questions on a variety of subjects. In contrast, the previous study was a bespoke survey, focused solely on the subject of transport which employed random probability sampling techniques in the selection of respondents. The survey period was around eight months, covering winter, spring and early summer.

1.2 Sampling Method

The TNS UK Omnibus uses a random location sampling methodology. Random location is a quota sampling approach where interviewers are given very little choice in the selection of respondents. Respondents in each interviewer assignment are drawn from a small set of homogenous streets. Quotas are set in terms of characteristics which are known to have a bearing on individuals' probabilities of being at home and so available for interview. This minimizes any bias introduced as a result of interviewers focusing on groups that are more likely to be at home. Rules are also given which govern the spacing between addresses and timing of interviews.

Each week, a varying number of sampling points are issued depending on the length of the questionnaire. Census small area statistics and the Postcode Address File (PAF) are used to define sampling points. Sampling points are areas of similar population sizes formed by the combination of wards, with the constraint that each point must be contained with a single Government Office Region (GOR).

The addresses are issued to achieve an adult sample of between 13 and 18 interviews in provincial areas and 12 and 15 in London. Assignments are conducted over two days of fieldwork and carried out on weekdays between 2pm and 8pm and at the weekend. Interviews are conducted by computer assisted personal interviewing (CAPI). Approximately 2,000 UK interviews are conducted with adults aged 16+ on the omnibus each week.

1.2 Data Analysis Considerations

Normal confidence intervals and standard errors assume that the survey data has been derived from a Stratified Random Sample (SRS). In such a sample, every individual in the population has an equal chance of being included in the survey sample. The sampling approach followed in the TNS Omnibus survey – the application of demographic quota controls at a series of sampling points throughout England - means that the survey sample is not a SRS. Consequently, any references within the report to the statistical accuracy of the survey data have to be regarded as indicative. Further details of the sampling approach used for the TNS Omnibus survey are outlined in the Appendices.

It should be noted that the demographic quota controls are designed to produce a representative sample at the national level. Consequently, any analysis undertaken at the regional level should recognise that there may be considerable variations in the profile of the regional sample between different survey waves.
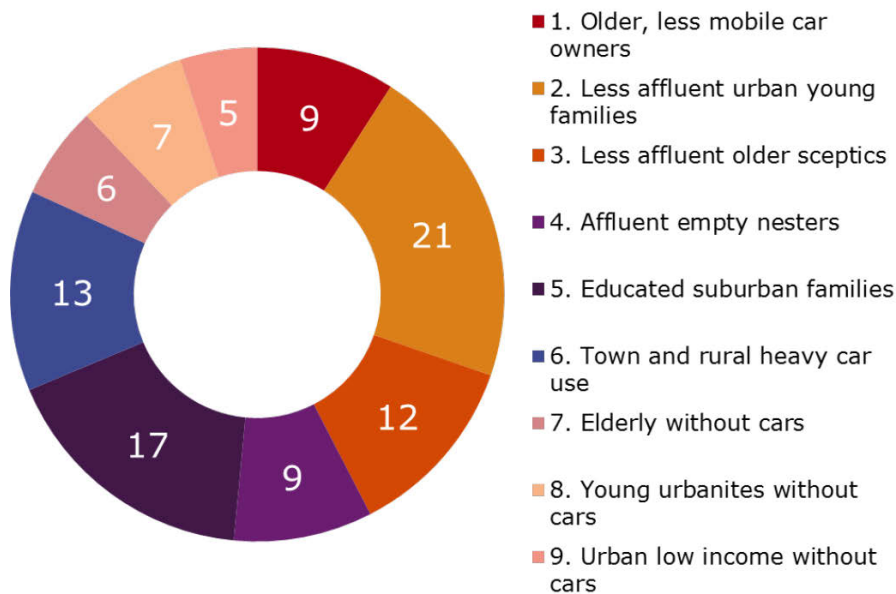
When reviewing the data featured in tables and charts, please note there may be some instances in the report where the total percentage of all responses does not add up to 100% due to rounding. This is a result of weighting the data to national proportions.

2. Profiles of the Segments

On the basis of the analysis conducted in this recent survey, the proportion of the English adult population in each segment was found to be identical to the study in 2011, with no changes recorded for any of the segments:

Distribution of segments within population
2011 Base = 3,923. 2013 Base = 3,463

- 1. Older, less mobile car owners
- 2. Less affluent urban young families
- 3. Less affluent older sceptics
- 4. Affluent empty nesters
- 5. Educated suburban families
- 6. Town and rural heavy car use
- 7. Elderly without cars
- 8. Young urbanites without cars
- 9. Urban low income without cars

This section of the report reviews each of the segments in turn in terms of its socio-demographic profile and, where appropriate, identifies any significant variations from the profiles outlined in the previous study in 2011.

**2.1 Older, less mobile car owners (9% of the population)**

This was the second oldest segment amongst the six car owning segments, with 76% aged over 54, and 43% aged over 70 years. The 2011 study also reported that 43% of this segment were aged over 70 years. Accordingly, 64% of this segment were retired (62% in 2011) and they were the most likely to have mobility problems (85% have some disability or other long standing health problem that makes it difficult to use other transport).

This segment featured a diverse range of socio-economic groups; a profile which was similar to that reported in the 2011 study. Slightly fewer respondents did not hold any formal education qualifications than was previously reported – 40% in 2013 compared to 45% in 2011. The only two segments which were more likely not to hold formal educational qualifications were Segment 3 – less affluent older sceptics (60%) and Segment 7 – elderly without cars (68%).

This segment tended to have spent longer living in their current home than the majority of the other segments - 14.6 years on average. In fact, 50% of this segment have lived in their current home for 20 years or more (compared to 48% in 2011). The only segments which were more likely to have lived longer in their current home were Segment 3 – less affluent older sceptics (14.7 years on average) and Segment 4 – affluent empty nesters (16.0 years on average).

Chart 1 - Key socio-demographics for Segment 1, Base= 300

1. Older, less mobile car owners

Base: Respondents in Segment 1 (300)
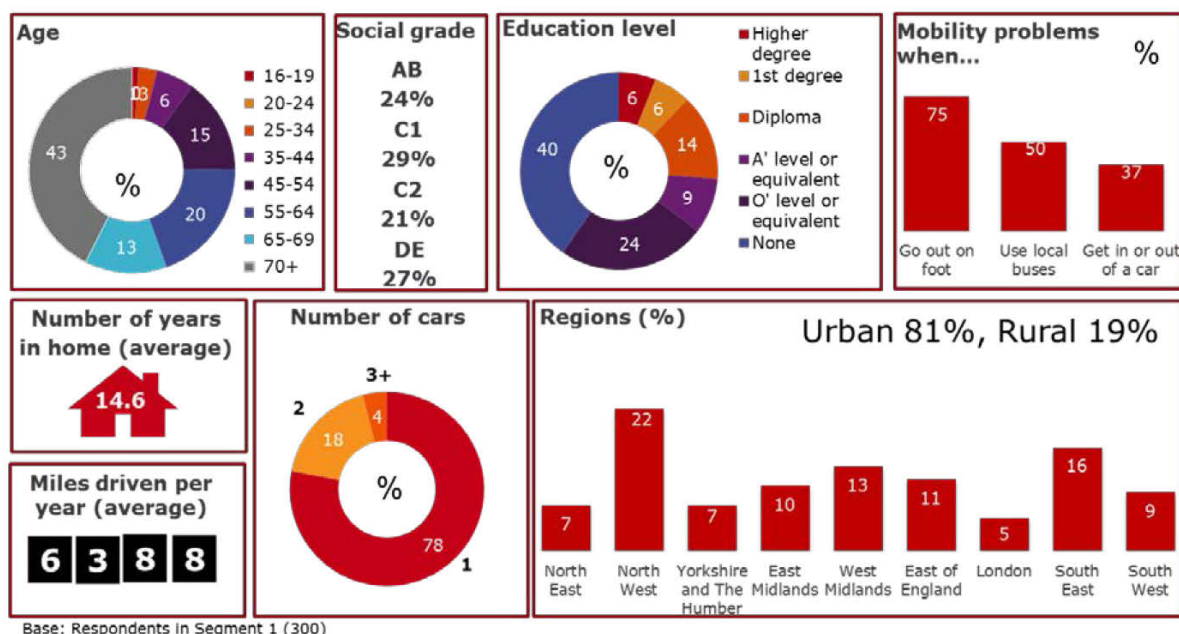
Despite being car owners, they did not tend to drive much, recording the lowest mileage per year of any segment (on average 6,388 miles per year). When buying a car or van, this segment was the least likely to emphasise speed/performance, image, and features (navigation device; cd player; music system etc.). Additionally, they were the second least likely of all the segments (26%) to state that buying an environmentally friendly/low CO_2 emissions vehicle would be of importance. Reliability (66%), running costs (53%) and safety (52%) were the key concerns when choosing a vehicle to buy.

Not surprisingly, considering their mobility issues and age, 59% of this segment stated 'I'm not the kind of person who rides a bicycle', while 64% said 'It's too dangerous for me to cycle on the roads' and 60% that 'I (would) find cycling on the roads stressful'.

As expected for this older age group, the Daily Mail (which targets the over 45's) was the most commonly read newspaper (18%) amongst this segment after local newspapers (27%).
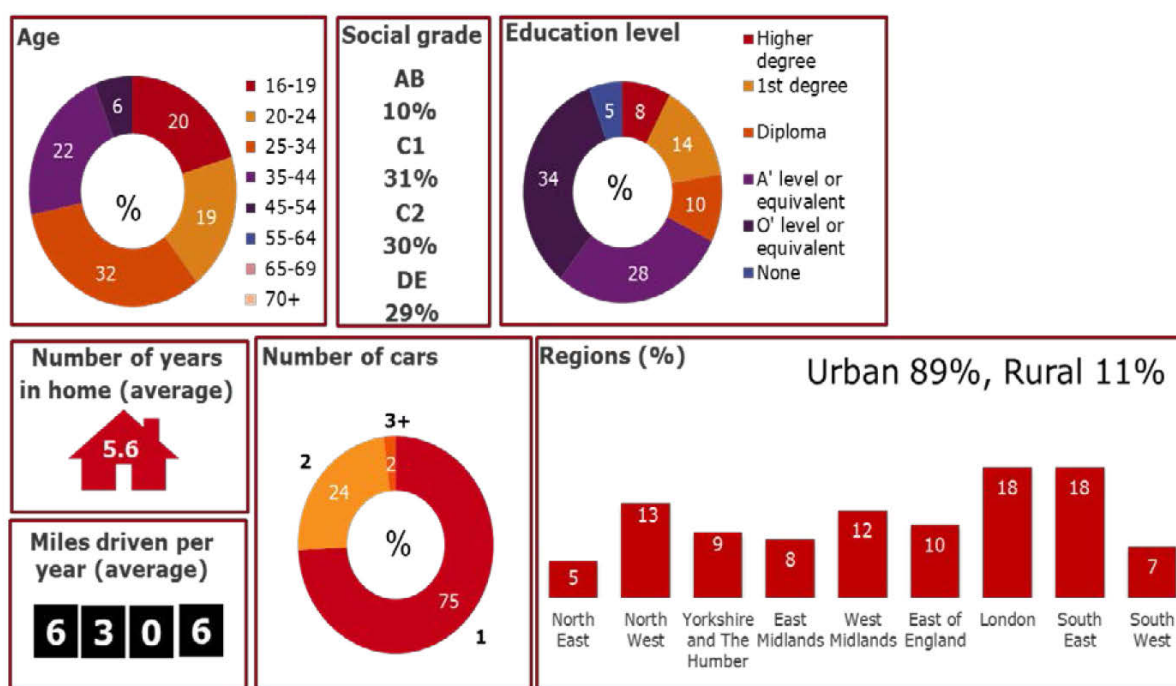
2.2 Less affluent urban young families (21% of the population)

The less affluent urban young families have remained the largest segment. As suggested by their title, this segment has a clear urban focus and younger age profile with four out of ten (39%) aged 16-24, and seven in ten (71%) aged 16-34. Consistent with this, the average number of years they have lived in their current home was the lowest for any car owning segment (5.6 years on average). 51% of this segment have children living at home.

Although the distribution of socio-economic groups was not quite as polarised as was evident in some other segments, this segment was slightly more biased towards C2DE's with 59% falling into these categories (55% in 2011 were C2DE's). At 10%, the proportion of AB's in this segment was the second lowest amongst car owning segments.

Chart 2 - Key socio-demographics for Segment 2, Base= 651

The majority within this segment have educational qualifications; with about a third (34%) having obtained 'O' levels / GCSE's and a quarter (28%) having obtained 'A' levels or equivalent. One in seven (14%)

achieved a first degree. A fifth (21%) of this segment claimed to still be in education, which was significantly higher than reported in 2011 (16%).

Those within this segment with two or more cars (26%) were slightly lower than in 2011 when a third owned two or more cars. Mileage tended to be low, on average 6,306 miles per year, which was the second lowest yearly mileage amongst the car owning segments. This segment focussed on running costs (55%), reliability (52%) and safety (50%) when choosing a car; they were the least likely of all the car owning segments to consider whether a vehicle was environmentally friendly/ had low CO_2 emissions (19% claimed this would be the case).

Opinion towards cycling was positive - 39% said 'I (would) feel confident cycling on the roads (e.g. to work/school/the shops)'. In fact, 51% claimed '[they] would cycle (more) if there were more dedicated cycle paths', although perhaps it was regarded more as a leisure pastime with 60% of the opinion, 'I (would) enjoy cycling as a leisure holiday activity'. A barrier to cycling appears to be theft, as a large proportion (47%) also agreed that 'I would cycle (more) if there were more secure places to store bicycles'.

This segment had the second lowest newspaper readership levels (second to Segment 9 – urban low income without cars), with 59% claiming to read papers at all. The most commonly read newspaper was The Sun, with nearly a quarter (23%) having read this in the last 4 weeks. This segment was the least likely to read local newspapers (13%).

2.3 Less affluent older sceptics (12% of the population)

Similar to the first segment (older, less mobile car owners), this third segment consisted of middle aged and older people, with 94% aged over 44 years (compared to 97% aged over 40 in the 2011 study). Due to their age profile, 49% had lived in their current home for 20 years or more, an average of 14.7 years.

However, any similarity with the first segment ended there, as on the basis of socio-economic grade, this segment is heavily biased towards C2DE's, with 68% in these categories. Six in ten (60%) had not obtained any educational qualifications – the least likely of any of the car owning segments to have any formal qualifications – a feature which was consistent with the 2011 study. Considering their age profile, fewer were retired (50%) than was the case with the other older segments – although this was significantly higher than in the 2011 study in which 39% of this segment were retired. With the lower level of retired people in this segment, a minority were hindered by any mobility problems.

Chart 3 - Key socio-demographics for Segment 3, Base= 474
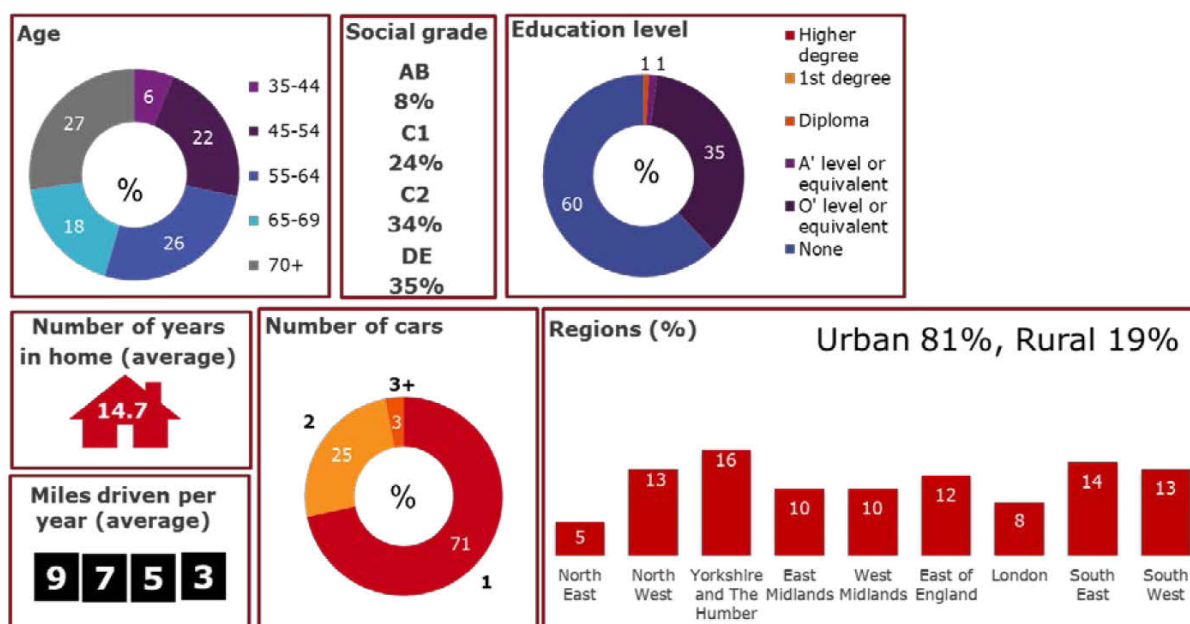
These less affluent older sceptics tended to own just one vehicle (71%, compared to 61% in the 2011 study). Mileage was lower than the overall average, but around the average for their age group. Reliability was considered to be important when choosing to buy a vehicle, identified by two thirds (64%) of this segment.

As was evident with the other older segments, 49% stated that 'I'm not the kind of person who rides a bicycle', while 67% claimed that 'It's too dangerous for me to cycle on the roads'.

Not surprisingly, given the demographic profile of this segment, The Sun (23%) and The Daily Mail (21%) were most commonly read, as well as local newspapers (24%).

2.4 Affluent empty nesters (9% of the population)

This segment was characterised by the fact that a third (33%) were aged 55-64 years and just over half were aged 65 years and over (53%). On the basis of age, there were similarities with the first segment (older, less mobile car owners) - 85% aged over 55 years in this segment compared to 75% in Segment 1. However, the first segment was more skewed towards the oldest age group of 70 years plus.

This fourth segment featured a very high proportion of individuals from the AB socio economic groups; indeed the vast majority were ABC1 (82% compared to 88% in the 2011 study). As such, this segment also had one of the highest levels of education with 37% having obtained a first or higher degree.

Although 60% of this segment was retired, it did not provide the highest proportion of retirees amongst the car owning segments, as was the case in the 2011 study. In this survey, the first segment of older, less mobile car owners had the highest proportion of retirees (64%). Reflecting the older age profile, the number of years spent in their current home was above average, with 55% having lived there for over 20 years (however, significantly lower than in 2011 when 64% had lived in their current home for over 20 years).

Three in five owned just one car in their household. This was significantly higher than in 2011 (61% vs. 52%). Correspondingly, two fifths owned two or more cars (39%). Mileage was higher than observed in the other older car owning segments (11,231 miles per year).

When buying a vehicle, this segment, along with the sixth segment (town and rural heavy car users), was the most likely to consider choosing an environmentally friendly/low CO_2 emissions option.

Consistent with the other older car owning segments, 68% said that 'It's too dangerous for me to cycle on the roads'. Additionally 71% reported that 'I (would) find cycling on the roads stressful'.

This segment had the highest readership of newspapers overall (78% read any); Local newspapers (27%), The Daily Mail (26%), The Daily Telegraph (15%) and The Times (13%) topped the list. It also had the highest combined level of broadsheet newspapers being read (41%) amongst all of the segments.

Chart 4 - Key socio-demographics for Segment 4, Base= 311

4. Affluent empty nesters
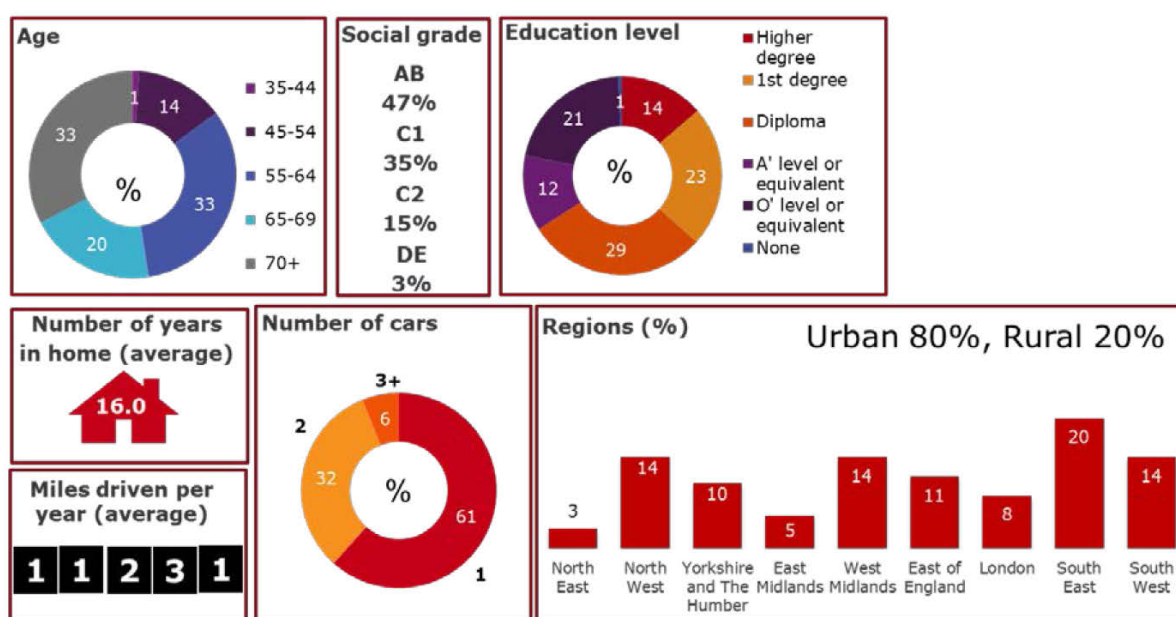
Base: Respondents in Segment 4 (311)

2.5 Educated suburban families (17% of the population)

Educated suburban families were the most affluent and educated of all the segments. 88% were ABC1's (compared to 91% in the 2011 study). As suggested by the label, over half of this segment (52%) obtained a first or higher degree and there were no individuals who did not hold any formal educational qualifications (similar to 2011).

This was primarily a middle aged segment, composed of those of working age (85% were aged between 25-54 years). Related to this, two thirds (66%) were in full time employment (70% in 2011) and 52% had children living at home. Just under a third (29%) had lived in their home for 10 years or more (25% in the 2011 study).

Educated suburban families were the segment most likely to have two cars in their household (46%; significantly lower than 53% in the 2011 study). Their mileage totals were the second highest amongst the car owning segments, at 19,333 miles per year on average. When choosing a vehicle to buy, this segment was most likely to consider running costs (71%) over safety (52%). Whether or not a car is environmentally friendly/ has low CO_2 emissions was considered to be important by 30% of individuals, which places them in the top three segments who consider this factor to be important.

Although 51% stated that 'I'm not the kind of person who cycles to work' the same proportion (51%) claimed that 'In general, I would rather cycle than use public transport'. Moreover, cycling was seen as an agreeable leisure pastime, with 74% saying that 'I (would) enjoy cycling as a leisure holiday activity'.

This segment favoured The Sun (16%) and The Daily Mail (15%) as well as The Guardian (12%) and The Times (11%) – overall readership levels were average.

Chart 5 - Key socio-demographics for Segment 5, Base= 456

5. Educated suburban families

Age

16-19, 20-24, 25-34, 35-44, 45-54, 55-64

7, 2, 6, 22, 29, 35

Social grade

AB 51%
C1 37%
C2 10%
DE 2%

Education level

Higher degree, 1st degree, Diploma, A' level or equivalent, O' level or equivalent, None

10, 21, 19, 31, 18

Number of years in home (average)

8.8

Miles driven per year (average)

1 9 3 3 3

Number of cars

3+, 2, 1

5, 46, 48

Regions (%)

Urban 80%, Rural 19%

North East 4, North West 13, Yorkshire and The Humber 8, East Midlands 7, West Midlands 13, East of England 16, London 11, South East 17, South West 11

Base: Respondents in Segment 5 (456)

2.6 Town and rural heavy car users (13% of the population)

The town and rural heavy car users were middle aged, middle class families. The majority, 68%, were aged between 25-54 years and consequently 79% were in employment, with 62% being full time. This was significantly fewer than in the 2011 study (69%).

This segment was similar to segment 5 (educated suburban families), although from a slightly less affluent background, with a higher proportion of C2DE's (22%) than was the case in the fifth segment (12%). This difference between the two segments was consistent with the 2011 study. The proportion with formal educational qualifications was lower (30% held first or higher degrees – significantly higher than 22% in 2011) than was evident amongst the other 'affluent' segments (i.e. compared to the segment 4 – affluent empty nesters and segment 5 – educated suburban families).

A third (32%) of the town and rural heavy car users had children living at home. Similar to the educated suburban families (Segment 5), 46% of this segment had lived in their home for 10 years or more.

Chart 6 - Key socio-demographics for Segment 6, Base= 354
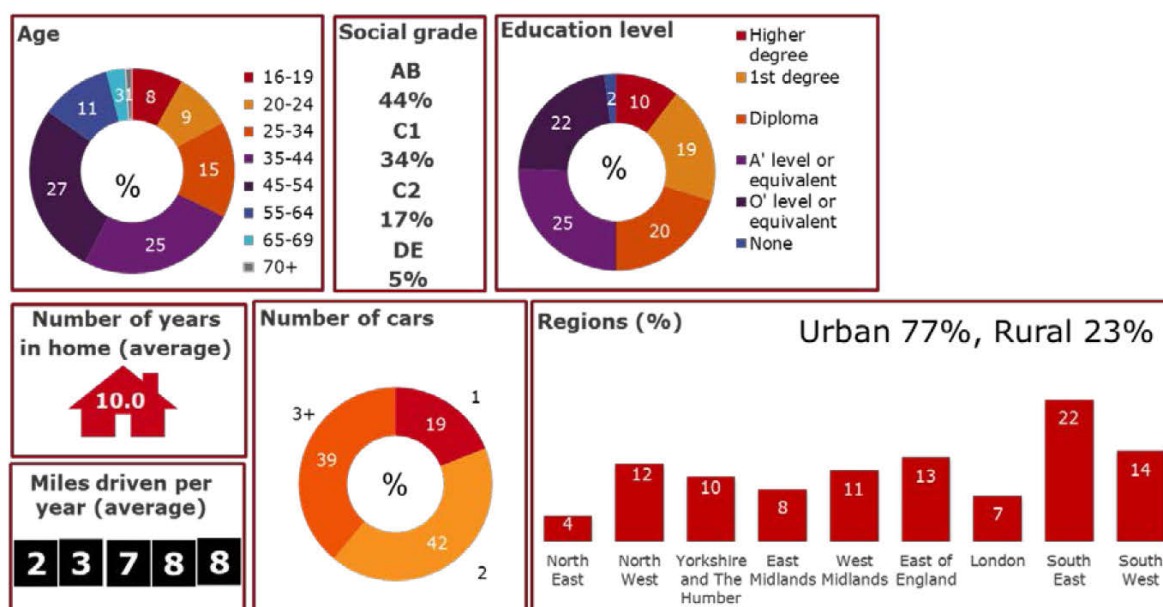
Town and rural heavy car users had the highest mileage totals amongst all of the segments, travelling an average of 23,788 miles per year. Two fifths (39%) owned three cars or more; this was much higher than was evident in any other segment (but significantly lower than the equivalent figure in 2011, when 53% of segment 6 owned three cars or more). Consistent with this finding, they had quite different priorities when it came to choosing a vehicle. They tended to focus much more on speed/performance, brand and model image, the size of the engine, style/design and features (navigation device, CD player, etc.) than was the case with any of the other car owning segments. Also, when buying a vehicle, this segment along with the fourth segment (affluent empty nesters), was the most likely to consider choosing an environmentally friendly/low CO_2 emissions option.

Readership of newspapers was quite high amongst this group at 71%, with the most commonly read being The Daily Mail (23%), followed by The Sun (18%) and The Daily Telegraph (13%).

2.7 Elderly without cars (6% of population)

The elderly without cars was the oldest of the segments, with 71% aged 70 years or more (similar to the 2011 study). Consequently, they had a number of mobility issues, although fewer than was the case amongst the first segment of older, less mobile car owners.

More than half were DE's (58% - compared to 51% in 2011), but the vast majority (82%) described themselves as living or coping comfortably on their present income. Consistent with their age, 86% were retired (significantly higher than 80% in 2011). The level of educational qualifications obtained was low – 68% had none compared to the 2011 study when nearly three-quarters claimed to have no qualifications).

Chart 7 - Key socio-demographics for Segment 7, Base= 321
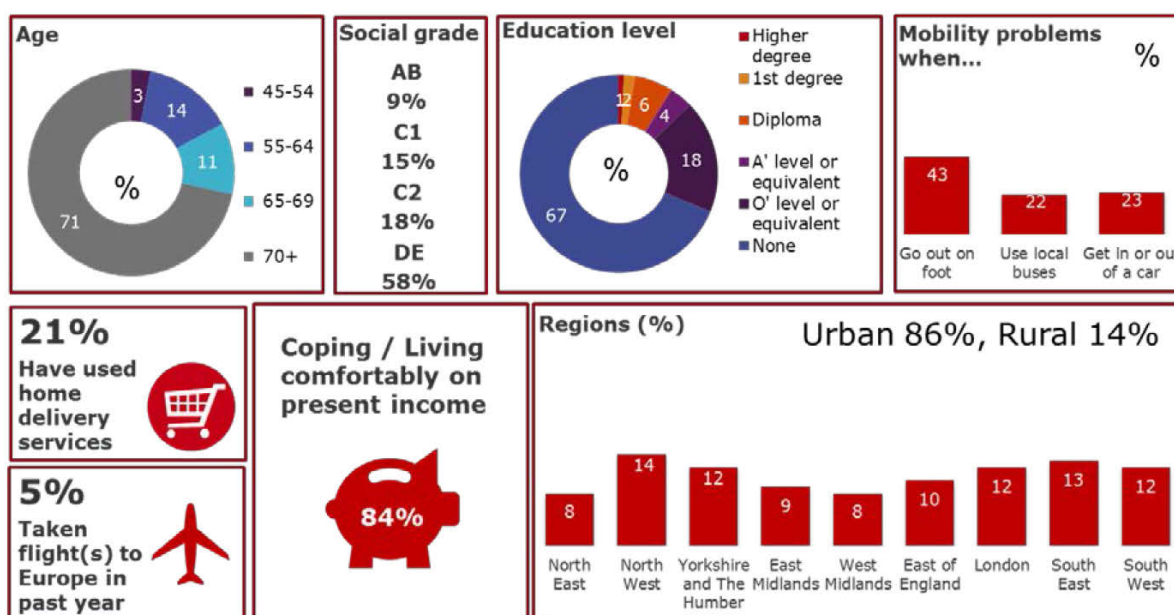
Base: Respondents in Segment 7 (321)

This segment considered cars to be the safest form of transport – even though none owned a car at the time of the survey. Buses were rated just below cars in terms of safety and indeed, this segment differed from the others in their positive outlook on bus travel (68% liked travelling by bus). Despite this, one in five of individuals (20%) claimed that they found it stressful travelling on the bus and a similar proportion (17%) stated that bus travel was expensive.

Nearly a third of this segment had read local newspapers (29%) in the last 4 weeks, and a further fifth had read The Daily Mail (21%). The Sun (16%)

and The Mirror (12%) also had high readership – all contributing towards a high level of readership overall (72% read any newspaper).

2.8 Young urbanites without cars (7% of population)

The young urbanites without cars were, as suggested by the label, young - 54% are under 35 (compared to 55% aged under 30 in the 2011 study) and they predominantly reside in urban areas, with a third in London. This segment was dominated by C1's (42%, but significantly lower than 53% in 2011) and 39% had obtained at least a first degree (significantly higher than 30% in 2011).

Two fifths (41%) were currently employed full-time (47% in 2011), while a further fifth (18%) were still in education (24% in 2011). One of the primary characteristics of this segment was the low incidence of children living at home (28% had children – compared to 26% in 2011). The majority of the segment (74%) stated that they were coping/living comfortably on their present income.

Chart 8 - Key socio-demographics for Segment 8, Base= 330

8. Young urbanites without cars

Base: Respondents in Segment 8 (330)
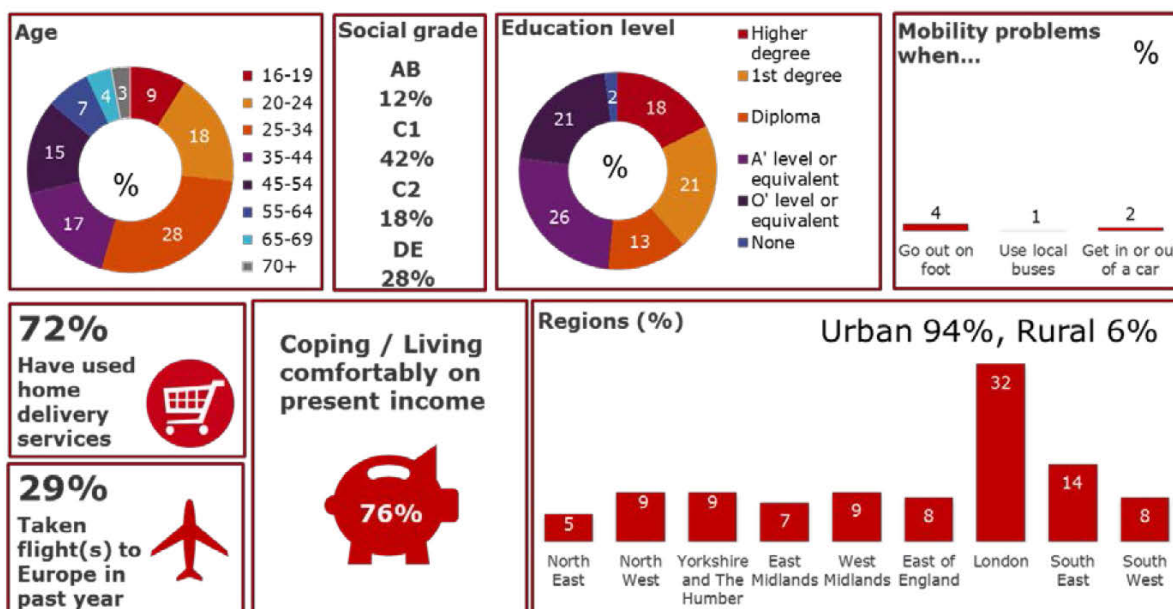
Although 58% of this segment considered cycling to be the least safe mode of transport, 62% said that they would rather walk or cycle than travel by

bus. Indeed, 60% agreed that they would cycle (more) if there were more dedicated cycle paths.

Just under the average amount of people in this group had read any daily newspapers in the last four weeks (66%). This is most likely to be as a result of the younger profile of this segment; those aged 18 to 24 years old are the least likely to have read a newspaper. Amongst readers, this group was split in their newspaper preferences, with 18% reading The Sun and 16% choosing The Guardian. This may have been due to the number of students in this segment.

2.9 Urban low income without cars (5% of population)

This segment, defined as urban low income without cars was quite a young segment, with 62% aged between 20-44 (compared to 80% aged between 21 and 49 in 2011). However, given that most of this segment was of working age, 60% were not actually in work – which was the highest proportion across all of the segments. This was also the segment with the most DE's (87%, compared to 88% in 2011). In line with this fact, 42% of this segment had no educational qualifications (significantly lower than 51% in 2011).

Along with the second (less affluent urban young families) and fifth (educated suburban families) segments, this segment was highly likely to have children at home (40%; significantly lower than 51% in 2011). Around one in three (32%) stated that they were living or coping comfortably on their present income.

Over two fifths (44%) of this segment found travelling on the bus stressful; it was speculated in the 2011 study that the high incidence of children in this segment impacted on this measure as travelling with children can be more involved. Three fifths (61%) considered that travelling by bus was expensive. Expanding on this, the 2011 study identified this segment as 'reluctant bus travellers' – they travelled frequently by bus but many expressed negative views about bus travel claiming it to be expensive and stressful.

Chart 9 - Key socio-demographics for Segment 9, Base= 266

9. Urban low income without cars

Age

16-19, 20-24, 25-34, 35-44, 45-54, 55-64, 65-69, 70+

7, 22, 7, 17, 27, 18, 20

Social grade

AB 2%
C1 4%
C2 8%
DE 87%

Education level

Higher degree, 1st degree, Diploma, A' level or equivalent, O' level or equivalent, None

42, 47, 12, 7

Mobility problems when... %

Go out on foot 8
Use local buses 6
Get in or out of a car 6

27% Have used home delivery services

4% Taken flight(s) to Europe in past year

Coping / Living comfortably on present income 40%

Regions (%) — Urban 86%, Rural 14%

North East 9
North West 18
Yorkshire and The Humber 12
East Midlands 9
West Midlands 11
East of England 8
London 16
South East 11
South West 6

Base: Respondents in Segment 9 (266)

A higher proportion of individuals in this segment, compared to the other non-car owning segments, felt that travelling by overground train was unsafe (30% rated this mode as being the least safe). Riding a bike was considered a little less safe (42% rated this as being the least safe mode) and 57% claimed that 'It's too dangerous for me to cycle on the roads'.

More than likely as a result of the younger profile of this segment, this group had the lowest levels of readership across all of the segments, with only 55% claiming to have read a newspaper in the last 4 weeks; primarily made up of readers of The Sun (27%) and local newspapers (24%).

3. SRN usage and awareness

The Department for Transport (DfT) commissioned a study to investigate people's attitudes towards roads and specifically the Strategic Road Network (SRN). Combining this data with the 'golden questions' has provided a unique opportunity to look at SRN usage and attitudes towards roads in detail across the nine defined segments.

It was found that usage of the Strategic Road Network (SRN) varied by segment, and amongst car owners. Segments 5 (educated suburban families) and 6 (town and rural heave car users) were the heaviest users, followed closely by Segments 2 (less affluent urban young families) and 4 (affluent empty nesters). In contrast, the first (older, less mobile car owners) and third (less affluent older sceptics) segments displayed below average use of the SRN. This pattern broadly corresponds with the yearly average mileage travelled by each segment, with the exception of Segment 2 (less affluent urban young families) which had a higher level of use of the SRN than would have been expected for their low yearly average mileage.

The non-car owning segments were primarily non users or infrequent users of the SRN, as would be expected.

Q5. Frequency of use of the SRN

Car owners (%)

Segment	Frequent	Regular	Infrequent	Non user
Older, less mobile (1)	23	28	28	19
Less affluent urban young families (2)	31	34	24	9
Less affluent older sceptics (3)	31	30	24	14
Affluent empty nesters (4)	36	36	22	6
Educated surburban families (5)	50	29	16	4
Town and rural heavy car users (6)	57	23	15	5

Non-car owners (%)

Segment	Frequent	Regular	Infrequent	Non user
Elderly without cars (7)	8	11	29	49
Young urbanites wihtout cars (8)	13	22	33	29
Urban low income without cars (9)	18	17	24	37
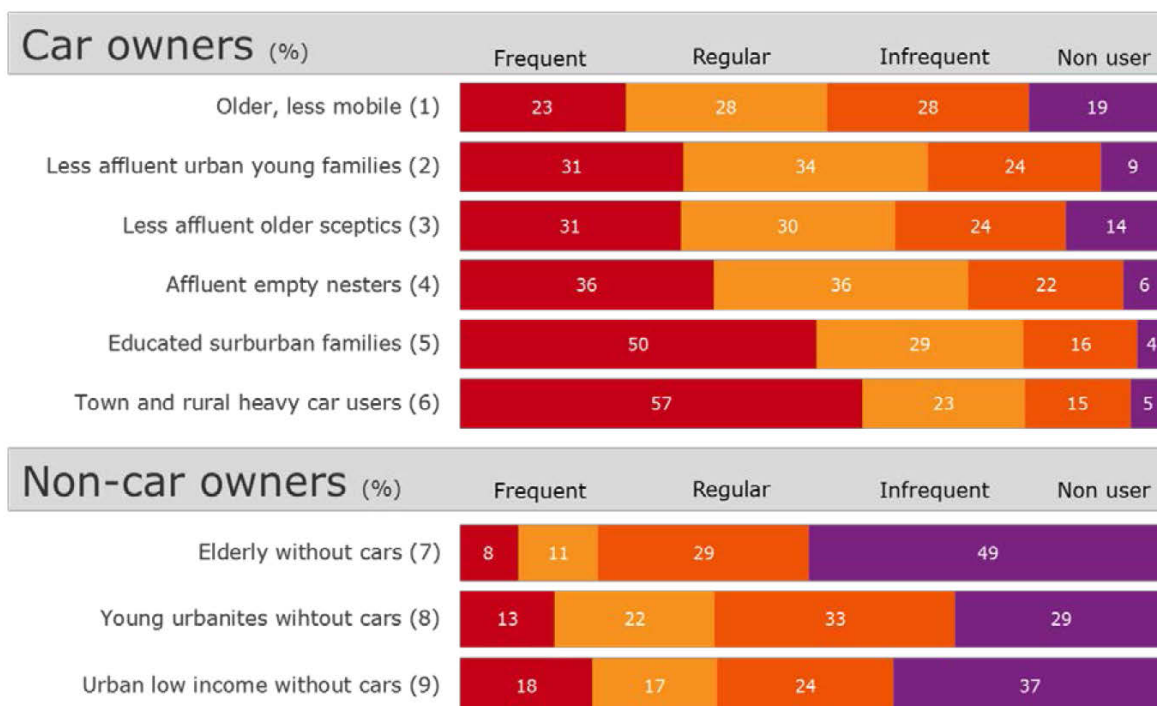
As observed amongst the overall population, levels of awareness of the term 'Strategic Road Network' were low – on average 17% overall. Demonstrated in the chart below, levels of awareness of the term 'Strategic Road Network' exhibited very little correlation to the frequency of use of the SRN.

Q4. % aware of term 'SRN' shown against Q5. % who are frequent users of the SRN

% aware of term 'SRN' shown against % who are frequent users of the SRN

- % frequent user
- % aware

Segment	% frequent user	% aware
Older less mobile (1)		20
Less affluent urban young families (2)	31	9
Less affluent older sceptics (3)	31	16
Affluent empty nesters (4)	36	25
Educated suburban families (5)	50	23
Town and heavy car use (6)	57	25

As has been recognised previously, the term 'Trunk Road' had higher levels of recognition. Recognition of both of these terms was below average amongst Segment 2 (less affluent urban young families). This may have been influenced by the fact that this segment had a younger age profile and a bias towards the C1C2DE socio-economic groups. Further substantiation of this claim is highlighted by the below average levels of awareness amongst the younger aged segments 8 (young urbanites without cars) and 9 (urban low income without cars).

Q4. % aware of term 'trunk road'
Base: All (3,492); Segment 1 (300), Segment 2 (651), Segment 3 (474), Segment 4 (311), Segment 5 (456), Segment 6 (354), Segment 7 (321), Segment 8 (330), Segment 9 (266)
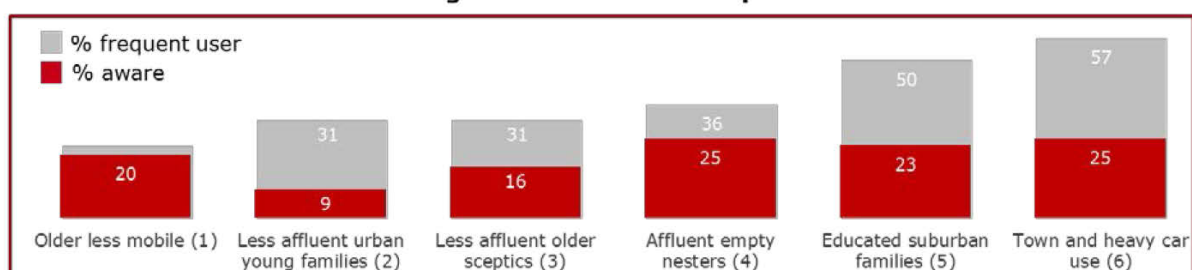
Awareness of term 'Trunk road'

Average	Older less mobile (1)	Less affluent urban young families (2)	Less affluent older sceptics (3)	Affluent empty nesters (4)	Educated suburban families (5)	Town and heavy car use (6)	Elderly without cars (7)	Young urbanites without cars (8)	Urban low income without cars (9)
41	54	15	51	68	50	56	39	26	16
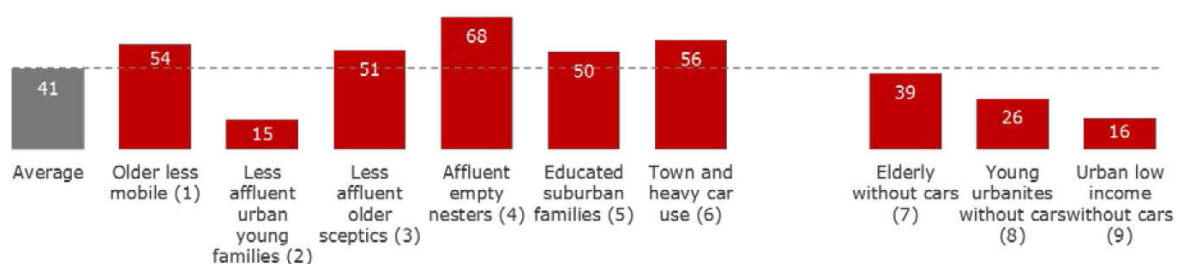
The majority (75%) of individuals, regardless of segment, agreed that there was a need for more money to be spent on managing and maintaining England's roads. However, just over a quarter of those in Segment 2 (less affluent urban young families) felt that there was currently sufficient investment. It is evident that those segments with higher car dependency (Segments 1, 3, 4, 6, 7) or those with more negative attitudes to public transport were more likely to favour investment in roads. By contrast those who used or were open to using public transport (Segments 2, 5, 8 and 9) were more likely to think current levels of investment are sufficient. Age may also have an impact on opinions about levels of investment, with older segments (Segments 1,3, 4 and 7) less likely to agree that current levels of investment are sufficient.

21

Q1. Thinking about the amount of money spent on maintaining and managing England's roads, would you say...
Base: All (3,492); Segment 1 (300), Segment 2 (651), Segment 3 (474), Segment 4 (311), Segment 5 (456), Segment 6 (354), Segment 7 (321), Segment 8 (330), Segment 9 (266)

More investment is required to maintain and manage roads (%)

Average	Older less mobile (1)	Less affluent urban young families (2)	Less affluent older sceptics (3)	Affluent empty nesters (4)	Educated suburban families (5)	Town and heavy car use (6)	Elderly without cars (7)	Young urbanites without cars (8)	Urban low income without cars (9)
75	85	65	88	84	74	83	78	57	62

Sufficient level of investment is being made in maintaining and managing roads (%)

Average	Older less mobile (1)	Less affluent urban young families (2)	Less affluent older sceptics (3)	Affluent empty nesters (4)	Educated suburban families (5)	Town and heavy car use (6)	Elderly without cars (7)	Young urbanites without cars (8)	Urban low income without cars (9)
19	10	27	10	12	22	15	12	31	21

There was little variation by segment about where to prioritise investment by type of road. In general, the population attached a higher priority for investment towards local streets and minor 'B' roads, irrespective of segment.

Q2. Which types of roads would you say require greater investment?
Base: Segment 1 (300), Segment 2 (651), Segment 3 (474), Segment 4 (311), Segment 5 (456), Segment 6 (354), Segment 7 (321), Segment 8 (330), Segment 9 (266)
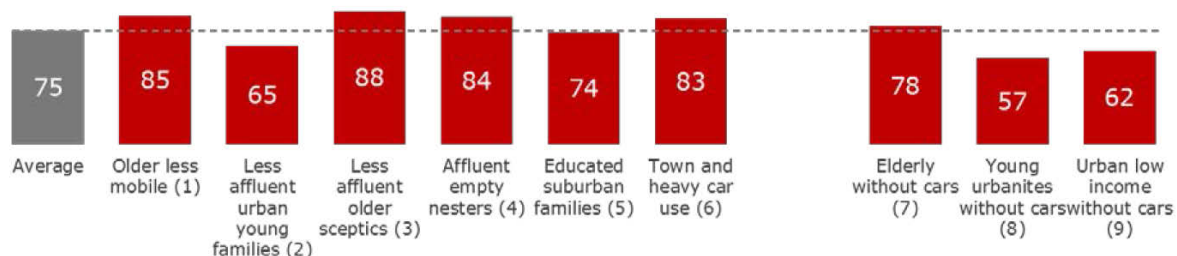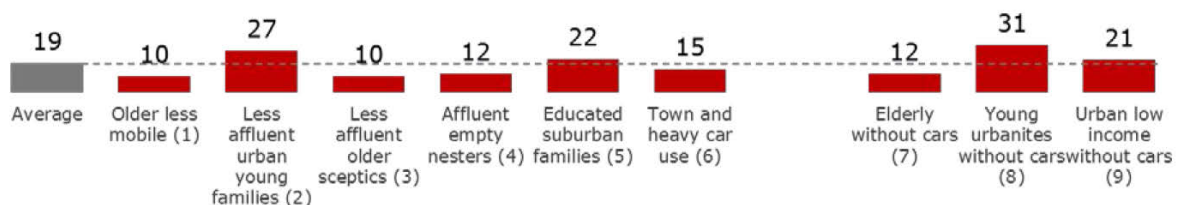
Where spending and investment should be focussed by type of road

Segment	Local streets	B' roads/minor roads	Major linking 'A' roads	Motorways	Dual carriageways	Other 'A' roads
Older, less mobile (1)	62	63	26	18	16	36
Less affluent urban young families (2)	64	40	19	14	12	20
Less affluent older sceptics (3)	65	58	32	19	18	37
Affluent empty nesters (4)	52	60	35	21	17	40
Educated surburban families (5)	61	52	27	15	13	29
Town and rural heavy car users (6)	61	55	35	23	18	40
Elderly without cars (7)	72	46	16	12	9	20
Young urbanites without cars (8)	66	37	13	16	9	15
Urban low income without cars (9)	59	33	17	16	11	17

- ■ **Local streets**
- ■ **B' roads/minor roads**
- ■ **Major linking 'A' roads**
- ■ **Motorways**
- ■ **Dual carriageways**
- ■ **Other 'A' roads**

4. The economy

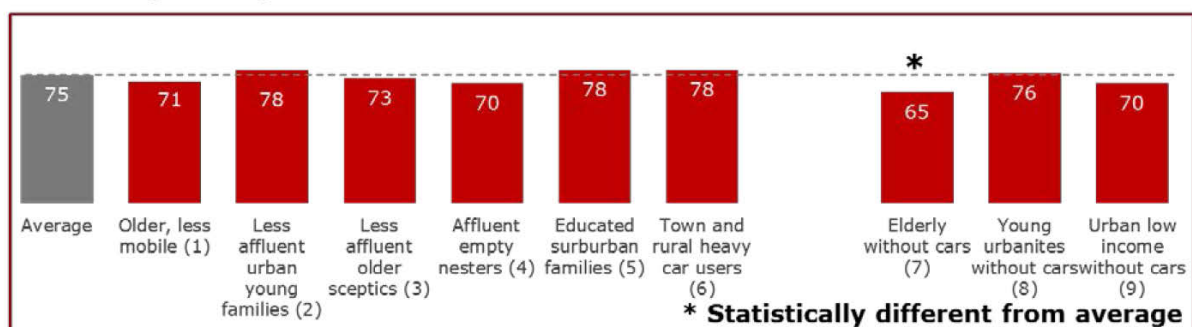To avoid any possible bias in the responses, a question to identify the perceived drivers of economic growth in the UK was asked in an earlier section of the survey questionnaire, separate from the remaining questions which focussed on roads.

'Creating new jobs' was regarded as being of primary importance across all segments by 75% overall. Increasing levels of education was the second most important driver of economic growth, with 46% in agreement. Two of the three non-car owning segments attributed similar levels of importance to 'improving the road network' as was evident amongst the car owning segments – the exception being Segment 8 (young urbanites without cars). There was no significant variation across the various segments in relation to the relative importance of 'improving the rail network' as being a driver of economic growth. Improving international connections was considered important by 9% overall.
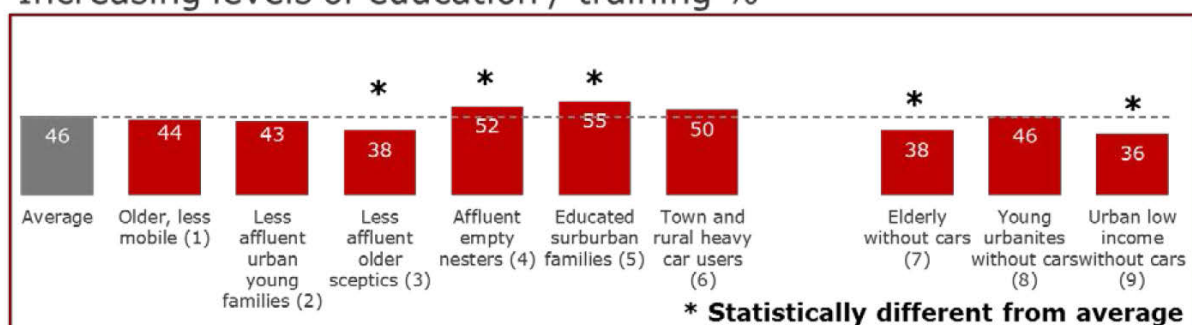
Q16. Which of the following do you think are most important in driving growth?
Base: Base: All (3,492); Segment 1 (300), Segment 2 (651), Segment 3 (474), Segment 4 (311), Segment 5 (456), Segment 6 (354), Segment 7 (321), Segment 8 (330), Segment 9 (266)
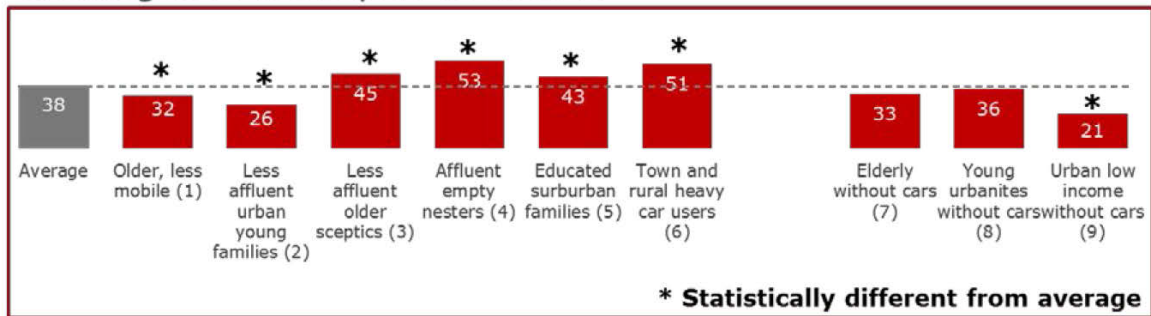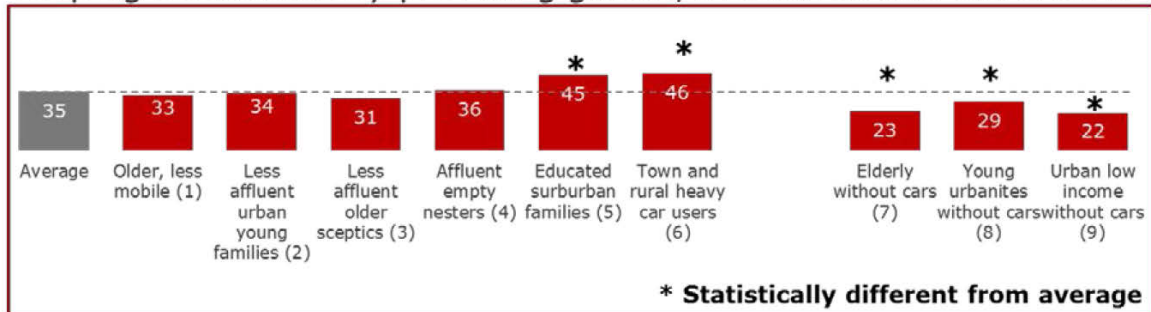

Creating new jobs %

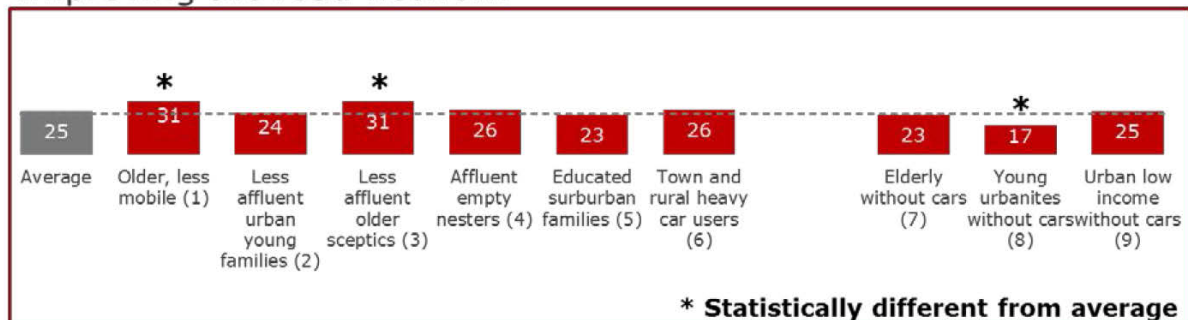Increasing levels of education / training %

Growing the UK's export market %

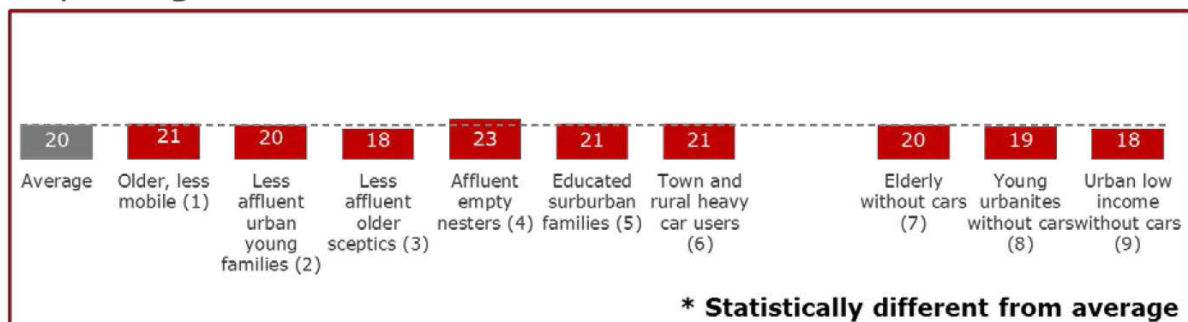| Average	Older, less mobile (1)	Less affluent urban young families (2)	Less affluent older sceptics (3)	Affluent empty nesters (4)	Educated surburban families (5)	Town and rural heavy car users (6)	Elderly without cars (7)	Young urbanites without cars (8)	Urban low income without cars (9)
38	32 *	26 *	45 *	53 *	43 *	51 *	33	36	21 *

* Statistically different from average

Helping businesses by providing grants, incentives and tax breaks %

Average	Older, less mobile (1)	Less affluent urban young families (2)	Less affluent older sceptics (3)	Affluent empty nesters (4)	Educated surburban families (5)	Town and rural heavy car users (6)	Elderly without cars (7)	Young urbanites without cars (8)	Urban low income without cars (9)
35	33	34	31	36	45 *	46 *	23 *	29 *	22 *

* Statistically different from average

Improving the road network

Average	Older, less mobile (1)	Less affluent urban young families (2)	Less affluent older sceptics (3)	Affluent empty nesters (4)	Educated surburban families (5)	Town and rural heavy car users (6)	Elderly without cars (7)	Young urbanites without cars (8)	Urban low income without cars (9)
25	31 *	24	31 *	26	23	26	23	17 *	25

* Statistically different from average

Improving the rail network

Average	Older, less mobile (1)	Less affluent urban young families (2)	Less affluent older sceptics (3)	Affluent empty nesters (4)	Educated surburban families (5)	Town and rural heavy car users (6)	Elderly without cars (7)	Young urbanites without cars (8)	Urban low income without cars (9)
20	21	20	18	23	21	21	20	19	18

* Statistically different from average

Improving International connections

Average	Older, less mobile (1)	Less affluent urban young families (2)	Less affluent older sceptics (3)	Affluent empty nesters (4)	Educated surburban families (5)	Town and rural heavy car users (6)	Elderly without cars (7)	Young urbanites without cars (8)	Urban low income without cars (9)
9	7	10	7	9	9	11	4 *	9	8

* Statistically different from average

5. Conclusions

1. As highlighted in the introduction to Section 2 of this report, there have not been any variations in the distribution of the English adult population across the nine segments which were developed in the 2009/10 study as a result of this recent survey. Consequently, it can be concluded that the set of 'golden questions' remain valid in terms of allocating the English population to the segmentation model.

2. In terms of relative magnitude, Segment 2 (less affluent urban young families) was the largest in the 2009/10 study and remained so – at 21%. The second largest segment in the 2011 study was Segment 5 (educated suburban families) – at 17%. The three non-car owning segments continued to be the smallest in terms of population share.

3. There was little evidence of significant changes in the profile characteristics of the individual segments. The paucity of examples highlighted in Section 2 of the report, where there were any noticeable differences between the 2009/10 study and the 2013 survey, would suggest a high degree of consistency in the profile of the segments.

4. There was some evidence of significant changes in the number of cars per household and university education. Whilst the number of households with a car remained stable between 2011 (82%) and 2013 (81%), as did the average annual mileage driven, there has been a significant decline in the number of households owning more than one car (45% in 2011 vs. 34% in 2013), which is reflected across all car-owning segments. This notable change and the decrease in the proportion of people with a university education in the majority of segments may be a reflection of the prevailing economic situation.

5. Using the segments as the basis for analysing the key measurements such as awareness of the SRN and frequency of use of the SRN revealed little variation amongst the various car owning segments. In contrast, levels of awareness of the description 'trunk road' did vary on the basis of age, with older people being more aware of the term. Indeed, the non-car owning segment which had an older age

profile had much higher levels of awareness of trunk roads than the other non-car owning segments.

6. Amongst the six car owning segments, there were no real variations in terms of the identified priorities for investment in different types of roads – channelling this towards local streets and 'B' roads was a consistent priority.

7. In terms of identifying the key drivers of economic growth, there was a clear recognition of the importance of 'creating new jobs' and this was consistent across all of the segments. Indeed, there was little variation on the economic issues, even between the car owning and non-car owning segments.

8. Establishing how effective the segmentation 'golden questions' have been must be assessed on the basis of what are the key principles. Based on the consistency of the distribution of the segments as well as a limited number of significant variations in the socio-demographic profile of the individual segments between the 2009/10 study and the 2013 survey, this would point towards a strong validation of the approach.

Appendix A – TNS Omnibus Sampling Details

Two face-to-face omnibus surveys are operated by TNS, one with a weekly fieldwork period from Wednesday to Sunday inclusive, the other with a fieldwork period from Friday to Tuesday inclusive. In every wave, representative samples of 2,000 UK adults aged 16 years and over – a total of 4,000 interviews per week – are achieved. Both surveys use the latest in Computer Assisted Personal Interviewing (CAPI) software and PEN PCs.

The TNS in-home Omnibus Survey uses a computerised sampling system which integrates the Post Office Address (PAF) file with the 2001 Census small area data at output area level. This enables replicated waves of multi-stage stratified samples to be drawn with accurate and up to date address selection using PPS methods (probability proportional to size). This is explained in greater detail below.

The TNS in-home Omnibus Survey has Random Location Sampling as its sampling basis and a unique sampling system has been developed for this purpose. Utilising 2001 UK Census small area statistics and the Post Office Address File (PAF), Great Britain - south of the Caledonian Canal has been divided into 600 areas of equal population. From these 600 areas, a master sampling frame of 300 sample points has been selected to reflect the country's geographical and socio-economic profile. The areas within each Standard Region are stratified into population density bands and within band, in descending order by percentage of the population in socio-economic Grade I and II.

To maximise the statistical accuracy of the sampling, sequential waves of fieldwork are allocated systematically across the sampling frame to ensure maximum geographical dispersion. The 300 primary sampling units are allocated to 12 sub-samples of 25 points each, with each sub-sample in itself being a representative drawing from the frame. For each wave of fieldwork, a set of sub-samples is selected in order to provide the number of sample points required (typically c. 139 for 2,000 interviews). Across sequential waves of fieldwork all sub-samples are systematically worked,

thereby reducing the clustering effects on questionnaires asked for two or more consecutive weeks.

Each primary sampling unit is divided into two geographically distinct segments, both containing, as far as possible, equal populations. The segments comprise aggregations of complete postcode sectors. Within each half (known as the A and B halves) postcode sectors have been sorted by the percentage of the population in socio-economic groups I and II. One postcode sector from each primary sampling unit is selected for each survey wave, alternating on successive selections between the A and B halves of the primary sampling unit, again to reduce clustering effects. For each wave of interviewing, each interviewer is supplied with two blocks of 70 addresses, drawn from different parts of the sector.

To ensure a balanced sample of adults within the effective contacted addresses, a quota is set by sex (male, female housewife, female non-housewife); within the female housewife quota, presence of children and working status and within the male quota, working status. In each weekly wave of the survey, a target of 2,000 interviews is set and the survey data is weighted to ensure that the sample is representative of the UK population in terms of the standard demographic characteristics.

In each weekly wave, at least 1,600 interviews are undertaken in England.

Within each sample point, only one interview is undertaken per household and a minimum of three households is left between each successful interview. This procedure ensures that interviewing in each sample point is not restricted to a small geographic area containing individuals with similar demographic and lifestyle characteristics thereby further minimising the effects of clustering within the sample.

Appendix B – Questionnaire

Ask all
Q.1 Thinking about the amount of money spent on maintaining and managing England's roads, would you say...

    1 q ...More investment is required
    2 q ...There is sufficient investment
    3 q ...Less investment is needed

Ask all
Q.2 Which types of roads would you say require greater investment?

    1 q Motorways
    2 q Dual carriageways
    3 q Major 'A' roads that link motorways to one another and to cities
    4 q Other 'A' roads
    5 q 'B' roads or minor roads
    6 q Local streets

Ask all
Q.4 Which of the following, if any, have you heard of?

    1 q Variable Message Sign
    2 q Strategic Road Network
    3 q Route Based Planning
    4 q Managed Motorway Scheme
    5 q Active Traffic Management
    6 q Trunk Road
    7 q None of these

Ask all
Q.5 How often in the last 12 months have you used any of these strategic roads as either a driver or passenger?

    1 q Twice a week or more
    2 q Between once a week and once a month
    3 q Less than once a month but more than once a year
    4 q Less than once a year
    5 q I never travel on these strategic roads

Ask all
B42. Here are some statements people have made about cycling. For each, please try to give your initial feeling rather than thinking about it too much, and say whether you agree or disagree.

I'm not the kind of person who rides a bicycle
    1 q Definitely agree
    2 q Tend to agree
    3 q Neither agree nor disagree
    4 q Tend to disagree
    5 q Definitely disagree

I (would) feel confident cycling on the roads (e.g. to work\school\the shops)
    1 q Definitely agree
    2 q Tend to agree
    3 q Neither agree nor disagree
    4 q Tend to disagree
    5 q Definitely disagree

I (would) feel confident cycling on the roads (e.g. to work\school\the shops)
    1 q Definitely agree
    2 q Tend to agree
    3 q Neither agree nor disagree
    4 q Tend to disagree
    5 q Definitely disagree

I would cycle (more) if there were more dedicated cycle paths
    1 q Definitely agree
    2 q Tend to agree
    3 q Neither agree nor disagree
    4 q Tend to disagree
    5 q Definitely disagree

I would cycle (more) if there were more secure places to store bicycles
    1 q Definitely agree
    2 q Tend to agree
    3 q Neither agree nor disagree
    4 q Tend to disagree
    5 q Definitely disagree

In general, I would rather cycle than use public transport
    1 q Definitely agree
    2 q Tend to agree
    3 q Neither agree nor disagree
    4 q Tend to disagree
    5 q Definitely disagree

I (would) enjoy cycling as a leisure \ holiday activity

1 q Definitely agree
2 q Tend to agree
3 q Neither agree nor disagree
4 q Tend to disagree
5 q Definitely disagree

I am willing to cycle on the roads (e.g. to work\school\the shops)
1 q Definitely agree
2 q Tend to agree
3 q Neither agree nor disagree
4 q Tend to disagree
5 q Definitely disagree

I (would) find cycling on the roads stressful
1 q Definitely agree
2 q Tend to agree
3 q Neither agree nor disagree
4 q Tend to disagree
5 q Definitely disagree

I'm not the kind of person who cycles to work
1 q Definitely agree
2 q Tend to agree
3 q Neither agree nor disagree
4 q Tend to disagree
5 q Definitely disagree

It would be quicker for me to cycle to work than go by car
1 q Definitely agree
2 q Tend to agree
3 q Neither agree nor disagree
4 q Tend to disagree
5 q Definitely disagree

Car owners only
B5. How many vehicles does your household own or have continuous use
of at present?
Please include company cars, if available for private use. Include any
broken down vehicles which may be in use within the next month.
1 q No car 0
2 q 1 car 1
3 q 2 cars 2
4 q 3+ cars 3

Car owners only
B17. Looking at this list, which of these things are important to you when buying a car or van?

  1 q Comfort
  2 q Costs - purchase\running\resale value\tax \insurance
  3 q Small engine
  4 q Large engine
  5 q Environmentally friendly\low CO2 Emissions
  6 q Image of brand \ brand preference
  7 q Image of model \ model preference
  8 q Interior space\functionality\boot size
  9 q Reliability
10 q Safety
11 q Speed\performance,
12 q Style\design
13 q Features - sat nav; CD player; music system; power steering etc (all features mentioned)
14 q Something else

Car owners only
B19. Looking at the following list, approximately how many miles a year do you personally drive in the cars and vans owned or used by your household?

  1 q 0 0
  2 q 1-499 miles 250
  3 q 500 - 999 miles 749.5
  4 q 1,000 - 1,999 miles 1499.5
  5 q 2,000 - 2,999 miles 2499.5
  6 q 3,000 - 3,999 miles 3499.5
  7 q 4,000 - 4,999 miles 4499.5
  8 q 5,000 - 6,999 miles 5999.5
  9 q 7,000 - 8,999 miles 7999.5
10 q 9,000 - 11,999 miles 10499.5
11 q 12,000 - 14,999 miles 13499.5
12 q 15,000 - 17,999 miles 16499.5
13 q 18,000 - 20,999 miles 19499.5
14 q 21,000 - 29,999 miles 254995.5
15 q 30,000 miles and over 30000

Car owners only

A1. How long have you lived in your current home?
1 q Up to 1 year 0.5
2 q More than 1 year, up to 2 years 1.5
3 q More than 2 years, up to 5 years 3.5
4 q More than 5 years, up to 10 years 7.5
5 q More than 10 years, up to 20 years 15
6 q More than 20 years 20

Non-car owners

B31. Here are some statements people have made about buses. For each, please try to give your initial feeling rather than thinking about it too much, and say whether you agree or disagree.

In general, I think that successful people tend to travel by car rather than by bus
1 q Definitely agree
2 q Tend to agree
3 q Neither agree nor disagree
4 q Tend to disagree
5 q Definitely disagree

I would only travel by bus if I had no other choice
1 q Definitely agree
2 q Tend to agree
3 q Neither agree nor disagree
4 q Tend to disagree
5 q Definitely disagree

In general, when I have the choice I would rather walk or cycle than go by bus
1 q Definitely agree
2 q Tend to agree
3 q Neither agree nor disagree
4 q Tend to disagree
5 q Definitely disagree

I find travelling by bus is expensive
1 q Definitely agree
2 q Tend to agree
3 q Neither agree nor disagree
4 q Tend to disagree
5 q Definitely disagree

I like travelling by bus
1 q Definitely agree
2 q Tend to agree
3 q Neither agree nor disagree
4 q Tend to disagree
5 q Definitely disagree

I find travelling by bus stressful
- 1 q Definitely agree
- 2 q Tend to agree
- 3 q Neither agree nor disagree
- 4 q Tend to disagree
- 5 q Definitely disagree

Non-car owners
B46. Thinking now about personal safety, that is the risk of being a victim of crime, please rate these forms of transport in order of safety from the most safe to the least safe. So which one would you say is most safe?

- 1 q Bus
- 2 q Overground train (NOT including underground\tube\metro systems)
- 3 q Car
- 4 q Bicycle

B46.A And which one would you say is the second most safe?

- 1 q Bus
- 2 q Overground train (NOT including underground\tube\metro systems)
- 3 q Car
- 4 q Bicycle

B46.B And which one would you say is the third most safe?

- 1 q Bus
- 2 q Overground train (NOT including underground\tube\metro systems)
- 3 q Car
- 4 q Bicycle

Non-car owners
B50. Looking at this list, how many short-haul flights starting from the UK did you make to Europe during the last 12 months? If you don't know the exact number please give your best guess. Flights should start in the UK.

- 1 q None 0
- 2 q One 1
- 3 q Two 2
- 4 q Three or more 3.5

Non-car owners

CN76. And how often nowadays, if at all, do you use home delivery (e.g. internet shopping \ telephone ordering) for any non-food shopping, such as for buying books, CDs, clothes, holidays, or insurance?

1 q Regularly 3
2 q Sometimes 2
3 q Have only done this once or twice 1
4 q Never 0

Non-car owners

F15. From this list, which of these phrases comes closest to describing your feeling about your household income these days?

1 q Living comfortably on present income 4
2 q Coping on present income 3
3 q Finding it difficult on present income 2
4 q Finding it very difficult on present income 1

Ask all

F12. Please look at this screen and tell me whether you have any of the educational or school qualifications listed. Start at the top of the list and tell me the first one you come to that you have

1 q University Higher Degree (e.g. MSc; PhD)
2 q First degree level qualification (e.g. BA; BSc) including foundation degrees; PGCE
3 q Diploma in higher education; HNC; HND; Nursing or Teaching qualification (excluding PGCE)
4 q A level; AS level; NVQ level 3; GNVQ Advanced; or equivalent
5 q GCSE grade A* - C; O level; CSE grade 1; NVQ level 2; GNVQ intermediate; or equivalent
6 q GCSE grade D - G; CSE below grade 1; NVQ level 1; GNVQ Foundation level; or equivalent
7 q None of the above

Ask all

B2. Do you have any disability or other long standing health problem that makes it difficult for you to do any of the following...

1 q Go out on foot
2 q Use local buses
3 q Get in or out of a car

Ask all
B39b. Do you have any disability or other long standing health problem that makes it, or would make it, difficult or impossible for you to ride a bicycle?

    1 q Yes - impossible
    2 q Yes - difficult
    3 q No

Ask all
Q.15 Which of the following newspapers, if any, have you read in the last 4 weeks?
PROBE: Which others? Any others?

    1 q The Daily Telegraph
    2 q The Times
    3 q The Guardian
    4 q The Financial Times
    5 q The Independent
    6 q The Daily Mail
    7 q The Daily Express
    8 q The Sun
    9 q The Mirror
  10 q The People
  11 q The Daily Star
  12 q The Daily Record
  13 q The Sunday Telegraph
  14 q The Sunday Times
  15 q The Observer
  16 q The Independent on Sunday
  17 q The Mail on Sunday
  18 q The Sunday Express
  19 q The Sun on Sunday
  20 q The Sunday Mirror
  21 q The Sunday People
  22 q The Sunday Sport
  23 q Local newspaper
  24 q Other newspaper
  25 q The i

Ask all

Q.16 Thinking about the UK economy, which of the following do you think are most important in driving growth? You may select up to five answers.

1 q A. Increasing private sector investment
2 q B. Increasing international investment
3 q C. Growing the UK's export market
4 q D. Improving the rail network
5 q E. Improving the road network
6 q F. Improving international connections (airports and ports)
7 q G. Creating new jobs
8 q H. Increasing levels of education \ training
9 q I. Helping businesses by providing grants, incentives and tax breaks
10 q J. Encouraging consumer spending
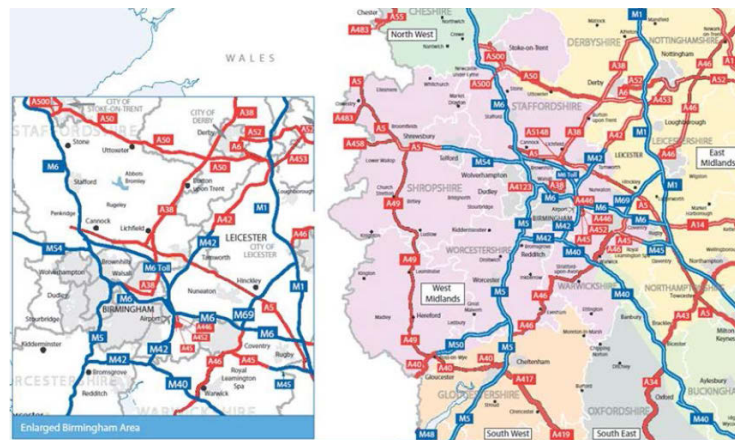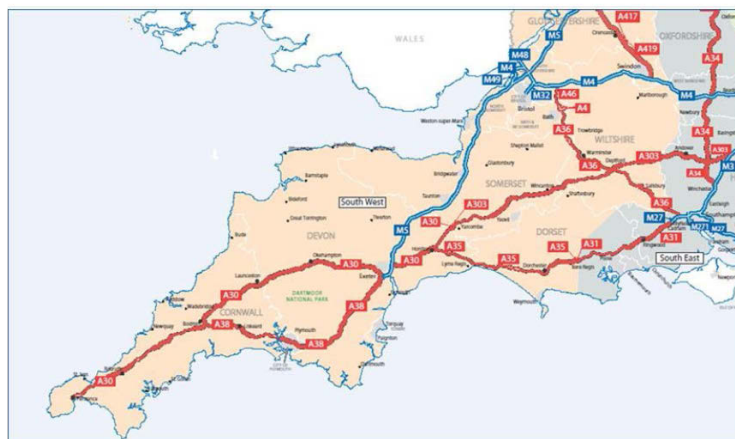11 q K. I don't think growth is important

Appendix C – Show cards

East / South East

North East / North West

Midlands

South West

Show Card

The following roads comprise the Strategic Road Network:-

Motorways

M1.........	M25.....	M40.........	M54.......	M602.....	M69......... ...
M11.........	M26.....	M42.........	M55.......	M606.....	A1(M) ....
M18.........	M27.....	M45.........	M56.......	M61.......	A194(M) ...
M180.........	M271...	M48.........	M57.......	M62.......	A3(M) ....
M181.........	M275...	M49.........	M58.......	M621.....	A308(M)....
M2.........	M3.......	M5.........	M6.........	M65.......	A404(M).....
M20.........	M32.....	M50.........	M6 Toll...	M66.......	A627(M)....
M23.........	M4.......	M53.........	M60.......	M67.......	A66(M).........
					A74(M) ......

Trunk roads

A1..........	A2070 ...	A36.......	A452.....	A55........	A696.........
A1033 ...	A21.........	A38.......	A453.........	A550......	A74..........
A1089 ...	A23.........	A4..........	A458.........	A556......	Dartford
A11........	A24.........	A40........	A46.........	A56........	Crossing
A12........	A259.........	A404.....	A47.........	A585......	Bridge......
A120.........	A26.........	A405.....	A483.........	A590......	Dartford
A13........	A27.........	A41.......	A49.........	A595......	Crossing
A14........	A282.........	A414.....	A5..........	A6..........	Tunnel......
A160.........	A3........	A417.....	A50.........	A61........	
A168.........	A30.........	A419.....	A500.........	A616......	
A174.........	A303.........	A42.......	A5036 ...	A628......	
A180.........	A31........	A421.....	A5103 ...	A63........	
A184.........	A3113 ...	A428.....	A5111 ...	A64.......	
A19........	A316.........	A43.......	A5117 ...	A66........	
A2..........	A34.........	A446.....	A5148 ...	A663......	
A20.......	A35.........	A45........	A52.........	A69........	