



Department
for Transport

National Travel Survey Data Extract User Guide, 1995-2016

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Data Update

2002-2014 dataset supersedes the 2002-2012 (SN: 5340 and SN: 7553) files:

Data for 2013 and 2014 have been processed and added to the previous data extract to allow users to analyse NTS data for all available years.

1995-2001 dataset supersedes the 1995-2001 (SN: 6108) files:

The National Travel Survey (NTS) team in DfT recently completed the redevelopment of the database in which all NTS data is held. All historic data (1995-2001) was copied from a Quantum Quanvert system into a new SQL database. This has over written previous data for years 1995 to 2001 which was previously processed in Quantum and supplied to the UK Data Service.

This change means that variable names in both the 1995-2001 and 2002-2014 files are corresponding and as such it is possible for users to join the datasets. (Note that the files contain different variables in some cases and as such consistent analysis is not always possible – see Table Structures document for more information on the availability of variables) All files can now be joined using the unique ID fields.

In addition, as part of the database redevelopment all processing methods were reviewed, including imputation of missing data for some variables. Improvements and corrections have been made which has resulted in some minor revisions to all data published from 1995. See Revision section of this document for details of the main changes made which have affected time series results.

Coverage:

In 2013, the coverage of the NTS changed to sample residents of England only. This change was agreed following a public consultation in 2011. Details of the consultation outcome can be found at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/230560/NTSconsultationSummaryofresponses.pdf

Due to this change analysis for Great Britain is not possible from 2013 onwards. It is recommended that analysis is undertaken for households/individuals who are English residents only. For more information on other travel surveys within Great Britain see the Background information in the 2014 National Travel Survey publication:

<https://www.gov.uk/government/statistics/national-travel-survey-2014>

All variable names have changed:

For users who are familiar with the old Quantum variable names, the Table Structures spreadsheet includes a mapping of old to new variable names. The data file containing all trip records is now called Trip.sav; in previous versions it was named Journey.sav.

A significant number of extra variables have been supplied to the UK Data Service for the End User Licence dataset. Further additional variables are available to users via Special Licence and the Secure Access Portal. The Table Structures spreadsheet indicates which variables are available and in which survey years – in this document 'Full' represents DfT's own version of the database.

Key issues to consider when analysing NTS data

- The NTS is primarily designed to measure long-term trends in travel and is **not suitable for monitoring short-term trends** or year-on-year changes.
- **Careful attention should be paid to sample sizes** for all analyses. (See note on sample sizes in the 2016 NTS technical report)
- **Appropriate 'short walk' weights should be applied to all trip/stage-level analysis** to account for the fact that short walks are only recorded on the seventh day of the travel week. (See section on 'Short walk weighting')
- In addition, there is a weighting strategy to adjust for non-response and 'drop-off', **appropriate weights should be applied to all analyses of data**. (See section on 'Non-response and "drop-off" weighting')
- **All analyses of data from the travel diary should be based on fully co-operating households only**. Analysis at the individual, household and vehicle level should be based on the interview sample which includes data from additional 'partially co-operating' households. (See section on 'Weighting')
- Before carrying out any analysis, all users should **first try to reproduce the examples in the annexes of this document and some published results tables** to ensure they are using the data and applying the weights correctly. The 2016 NTS publication is available at: <https://www.gov.uk/government/publications/national-travel-survey-2014>
- In addition, **users should be familiar with the survey methodology** to ensure data is analysed and interpreted correctly. See details below and the NTS technical information, available at: <https://www.gov.uk/government/collections/national-travel-survey-statistics>
- When analysing the data users should be aware that, although the core survey has remained consistent over time, **some relatively minor changes are made to the survey each year**, e.g. addition/removal of questions, changes to filters and variable categories. The appendix of the annual Technical Reports (see link above) give details of questionnaire changes since 2002.

For advice on using and interpreting the NTS data, please contact:
national.travelsurvey@dft.gsi.gov.uk

Survey Overview

Survey background

The NTS is carried out in order to monitor long-term changes in personal travel and provide a better understanding of the use of transport facilities made by different sectors of the population. Individuals in sampled households are interviewed face-to-face to collect personal information, such as age, gender, working status, car access and driving licence holding. They are also asked to complete a seven day travel diary and provide details of trips undertaken, including purpose, method of travel, time of day and trip length.

The first NTS survey was commissioned by the Ministry of Transport in 1965 with further periodic surveys being carried out in 1972/73, 1975/76, 1978/79 and 1985/86. There are a number of differences between the current survey and surveys up to 1978/79. These are detailed in Chapter 7 of the National Travel Survey 2008 Technical Report, which is available on the archived NTS website at:

<http://webarchive.nationalarchives.gov.uk/20091203140650/http://www.dft.gov.uk/pgr/statistics/datatablespublications/personal/methodology/ntstechreports/ntstechrep2008>

Conducting the survey

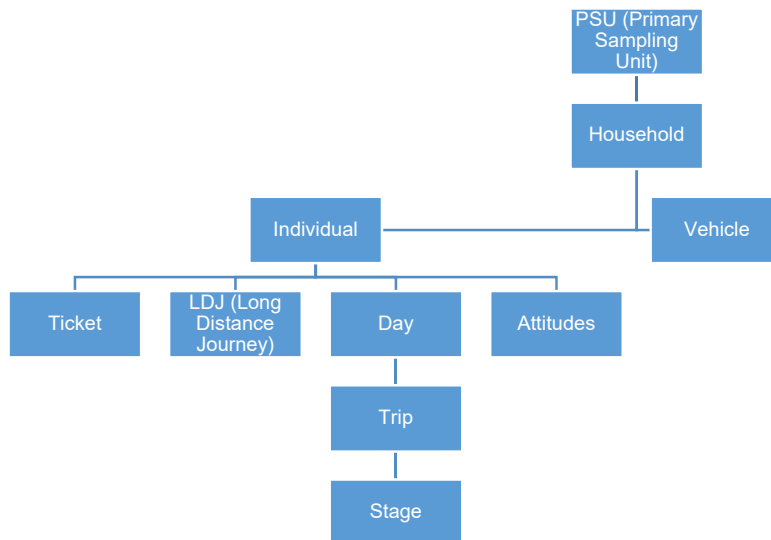
Prior to the interviewer's first call, letters are sent out to the sampled addresses. These introduce the survey and explain that an interviewer will call. The interviewer then arranges an appointment for a 'placement interview'. During this visit, the interviewer obtains information on the household, each household member and on all vehicles to which the household has access, via a computer assisted personal interview (CAPI). The procedures for the seven day travel diary record are then explained. Each household is given a randomly assigned start date for the seven day travel diary.

The placement call is generally followed by a reminder call, just before the start of the travel week, to remind the household to begin their travel records, and by a midweek call during the travel week to check that records are being completed correctly. Within six days of the end of the travel week the interviewer will make a 'pick-up call' to collect the travel records and to check the information recorded with the informants.

Data types

The data is hierarchical in nature and consists of several record types or 'levels'. Most significantly, data is held about households, vehicles, individuals, trips and stages. Data from each level are linked to make cross-level analysis possible. NTS methodology determines that vehicles belong to households and not individuals. Vehicle data, therefore, can only be analysed by household or vehicle attributes.

Levels in the NTS database



PSU – Primary Sampling Units (PSU) are used to provide a list of areas from which to select a sample of addresses from. In this case each PSU is a postcode sector.

Key identifier variables

To enable the linking of data from each level of the dataset hierarchy, a set of identifier variables are attached to each data file.

The combination of identifier variables that uniquely identifies a record at each level of the database are:

| | | |
|------------|---|--------------|
| PSU | - | PSUID |
| Household | - | HouseholdID |
| Vehicle | - | VehicleID |
| Individual | - | IndividualID |
| LDJ | - | LDJID |
| Day | - | DayID |
| Trip | - | TripID |
| Stage | - | StageID |
| Ticket | - | IndTicketID |
| Attitudes | - | AttitudesID |

To link levels together the identifier variables from the highest analysis level should match those at the lower level. These identifier variables are new unique IDs which allow for linkage between data levels (without requiring linkage on multiple variables, as in previous versions of the datasets held by the UK Data Service).

Example:

To link an individual to the trips they made, merge the individual and trip level files and ensure that the individual level identifier, IndividualID, matches on both files:

```
Individual.IndividualID=Trip.IndividualID
```

If merging datasets together, users should remove unwanted variables to reduce the file sizes and length of time it takes to merge.

See examples in Annex A and B for detailed instructions of how to merge data files.

Self-completion booklet - Attitudes

In NTS 2016, a split-sample experiment was conducted to explore the feasibility of moving a bank of attitudinal questions from the household level questionnaire to the individual level questionnaire. In one half of the sample, the attitudinal questions were asked as part of the household questionnaire (as has been the case in previous surveys) and in the other half one randomly selected adult per household was asked the attitudinal questions.

On some occasions, NTS individual questionnaires are answered by proxy if the household member is not available. However, this would not be appropriate for the attitudinal questions which, unlike behavioural questions, cannot be answered by proxy. To overcome the problem that the randomly selected adult may not be present during the interview, a paper self-completion was chosen for administering the attitudinal questions (as opposed to including the questions in the CAPI).

Although using a paper self-completion approach was the optimal solution in this experiment, it was felt that this may not be the best approach in the longer term and that including these questions within the CAPI would offer greater flexibility to ask broader modules of attitudinal questions. **NatCen Social Research | National Travel Survey 2016** [10](#)

Following the recommendations from a feasibility study that NatCen carried out in 2016, from 2017 a Computer Assisted Self Interviewing (CASI) module for transport satisfaction questions will be added, where one adult from those present during the household interview is randomly selected to complete the satisfaction questions. The details of the sampling and weighting methodology relating to the new CASI module will be published in the technical report for NTS 2017.

Using NTS Data

Distance

The length of any trip stage is the distance actually covered, as reported by the traveller, and not the distance as the crow flies. Distance is measured in miles (previous versions of the datasets held by the UK Data Service used tenth of mile).

Distance by mode

Average distance travelled results are calculated based on the *stage distance* for each mode and are presented as 'average distance travelled by 'mode' – see table NTS0305. Trip rates are usually presented as 'main mode', i.e. based on the mode that is the longest stage distance – see table NTS0303.

Time

Unit = minutes.

Denominator

It is standard NTS methodology to include all respondents in the denominator not just those making trips. For example children should be included when calculating driver trip rates.

Number of records

There are less records in 2011 due to the GPS experiment which was conducted using a sub sample and data collected was not incorporated into the main database.

Mode: Taxi/minicab

When using main mode or mode variables the split between taxi and minicab should not be used as it is not accurate. Results should be presented combined like published tables, e.g. [NTS0303](#)

Mode: Walking

Until NTS 2015, short walks (those walks of less than a mile in length) were only recorded on the seventh day of the travel diary.

The Department ran a consultation on the collection of short walk data in the NTS in 2014, and experiments during 2013 and 2015 which concluded that there is under-reporting of short walks in the NTS.

Short walks experiment in 2016

The data published here include the results of an experiment in 2016 to collect short walks on day 1 for half of the sample, and day 7 for the other half of the sample. This is a significant methodological improvement, as the research referred to above has concluded that collecting short walks on day 7 results in an under-reporting of these types of trips.

The figures for 2016 have been weighted using the information from both samples to produce NTS results as if all the respondents for 2016 had reported short walks on day 1.

Impact of the change

A full description of the impact of this change in methodology is described in Annex T of the Technical Report. In terms of the headline findings for adults, the effect was substantial. Collecting details of short walks on day 1 of the travel week increased the reporting of the prevalence of short walks and the number of short walks reported. Some 25.9% of adult respondents reported taking at least one short walk when reporting on day 1 compared with 21.3% when reporting on day 7. The average number of walks reported by all adults was 0.71 on day 1 compared with 0.57 for day 7.

Comparability of data between 2016 and earlier years

The impact of this improvement in the methodology for capturing short walks has meant a break in the time series between 2015 and 2016 for total trips, total distance and total time and for walking trips, distance and time in this publication.

We will be reweighting data back to 2002 and will present revised data in a publication later in the year. Until this time, **users should exercise caution when comparing 2016 with previous years** for certain types of analyses. In 2017, short walks for all respondents will be collected on day 1 of the travel diary.

For detailed walking trip analysis it may be necessary to limit the base sample to a single day only data, e.g. [NTS9909](#).

Key Definitions

Trip

A **trip** is defined as a one-way course of travel having a single main purpose, e.g. a walk to school or a trip to work without any break in travel.

Usually the respondent is clear what the single main purpose of a particular trip is. However, sometimes people go out for a number of reasons, or go out for one main reason but carry out a number of different activities, perhaps at different places. Complex travel like this is broken into separate trips so that the data can be analysed. Where a stop is entirely secondary to the main purpose (such as a stop to buy a newspaper on the way to work), the stop is disregarded.

Stage

A trip consists of one or more **stages**. A new stage is defined when there is a change in the form of transport or when there is a change of vehicle requiring a separate ticket.

In order to reduce the burden on respondents, travel involving a number of stops for the same main purpose and using the same form of transport are treated as one continuous 'series of calls' trip from the first such call to the last one. Only shopping and 'in course of work' travel can be treated in this way. A doctor's round could therefore consist of one trip to the first patient, one series of calls trip to the other patients and one trip from the last call back to the surgery or home.

A full list of definitions is available in the Notes and Definitions document available at: <https://www.gov.uk/government/collections/national-travel-survey-statistics>

Weighting

Short walk weighting

Because walking trips of less than one mile in distance are recorded only on the seventh day of the travel week, these trips must be weighted by a factor of seven when analysed. Also, for consistency with earlier surveys, 'series of calls' trips are excluded from analysis of stage and trip counts and time. Therefore, one of the following 'short walk weights' must be applied to any tabulations using trip or stage counts, distance or time:

| | |
|---------------|--|
| SSXSC | Number of stages to be counted, grossed for short walks and excluding 'series of calls' trips. |
| SD | Stage distance travelled, grossed for short walks. |
| STTXSC | Stage travelling time grossed for short walks and excluding 'series of calls' trips. |
| JJXSC | Number of trips to be counted, grossed for short walks and excluding 'series of calls' trips. |
| JD | Trip distance travelled, grossed for short walks. |
| JOTXSC | Overall trip time (includes travelling and waiting time), grossed for short walks and excluding 'series of calls' trips. |
| JTTXSC | Trip travelling time, grossed for short walks and excluding 'series of calls'. |

These weighted variables have been constructed as follows:

SSXSC

| | |
|---|-----------|
| If 'series of calls' | SSXSC = 0 |
| If not 'series of calls' and 'short walk stage' | SSXSC = 7 |
| If not 'series of calls' and not 'short walk stage' | SSXSC = 1 |

STTXSC

| | |
|---|--------------------------|
| If 'series of calls' | $STTXSC = 0 * StageTime$ |
| If not 'series of calls' and 'short walk stage' | $STTXSC = 7 * StageTime$ |
| If not 'series of calls' and not 'short walk stage' | $STTXSC = 1 * StageTime$ |

SD

| | |
|---------------------------|--------------------------|
| If 'short walk stage' | $SD = 7 * StageDistance$ |
| If not 'short walk stage' | $SD = 1 * StageDistance$ |

JJXSC

| | |
|--|-------------|
| If 'series of calls' | $JJXSC = 0$ |
| If not 'series of calls' and 'short walk trip' | $JJXSC = 7$ |
| If not 'series of calls' and not 'short walk trip' | $JJXSC = 1$ |

JOTXSC

| | |
|--|------------------------------|
| If 'series of calls' | $JOTXSC = 0 * TripTotalTime$ |
| If not 'series of calls' and 'short walk trip' | $JOTXSC = 7 * TripTotalTime$ |
| If not 'series of calls' and not 'short walk trip' | $JOTXSC = 1 * TripTotalTime$ |

JTTXSC

| | |
|--|-----------------------------|
| If 'series of calls' | $JTTXSC = 0 * TripTravTime$ |
| If not 'series of calls' and 'short walk trip' | $JTTXSC = 7 * TripTravTime$ |
| If not 'series of calls' and not 'short walk trip' | $JTTXSC = 1 * TripTravTime$ |

JD

| |
|---------------------------------------|
| $JD = \text{Sum}(SD)$ Stage distances |
|---------------------------------------|

Non-response and "drop-off" weighting

In addition to the short walk weights described above, a weighting strategy for the NTS was developed following a recommendation in the 2000 National Statistics Quality Review of the NTS. For the first time, the 2005 NTS results were based on weighted data. The weighting methodology was applied to data back to 1995 and all NTS figures for 1995 onwards which are published or released are now based on weighted data.

As well as adjusting for non-response bias, the weighting strategy for the NTS also adjusts for the drop-off in the number of trips recorded by respondents during the course of the travel week; for uneven recording of short walks by day of the week and for the short-fall in reporting of long distance trips.

Further information on the weighting methodology is available in the Technical Report at the link below. Please note that "W" notation in the Technical Report is not the same as the "W" notation in the NTS datasets as described in the 'Weighting matrices' section below).
<https://www.gov.uk/government/collections/national-travel-survey-statistics>

Therefore, there are several sets of weights which apply to different levels of the database; household, trip and long distance journey. It is important to select the correct weights for each analysis. Initial results should be checked against published data to ensure weights are being applied correctly.

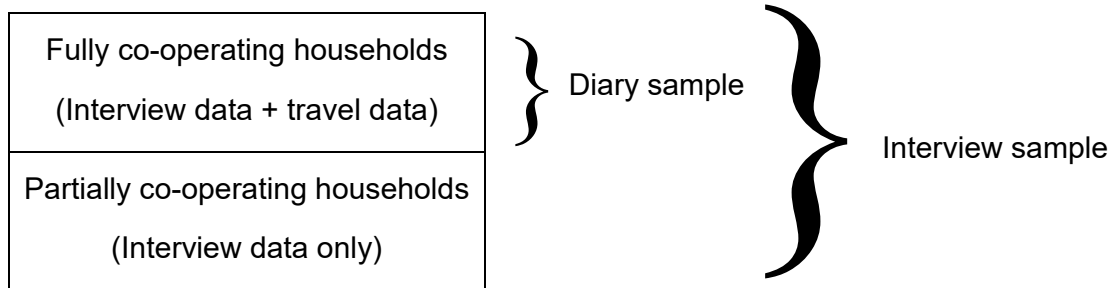
There are two samples which can be used for analysis:

Diary sample

Analysis of travel data is based on the diary sample. This comprises all 'fully co-operating households', defined as households for which the following information is available: a household interview, an individual interview for each household member, a seven day travel diary for each individual and, where applicable, at least one completed vehicle section. Weights were produced to adjust for non-response and, at the trip-level, they were also produced for drop-off in recording observed during the seven day travel week.

Interview sample

Analyses at household, individual and vehicle level are based on the interview sample. This sample comprises all fully co-operating households included in the diary sample, together with some additional 'partially co-operating households'. Generally these partially co-operating households had co-operated fully with the various interviews but not all household members had completed the travel diary. Prior to the introduction of the weighting methodology, data from partially co-operating households was not included in NTS analyses but this expanded dataset is now used for analyses which do not require data from the seven day travel record.



It is important to use the correct sample for all analysis.

The weighting methodology produces weights at the household, LDJ and trip level. The household weights apply to all individuals and vehicles within the household, and they have therefore been attached to the individual and vehicle files for ease of use. Similarly, the trip level weights apply to all stages within trips and have therefore been attached to the stage-level records for ease of use.

The variable ' OutCom_B02ID' (1=fully productive, 0=partially productive) is included on the SPSS household file to enable users to select the diary sample. This variable can be merged into other files if necessary, e.g. individual file. (In SQL, this is equivalent to the weight W1.)

Weighting matrices

The following weighting matrices are available and should be used on the appropriate level data for the analysis being produced:

- W0, W1, W2, and W3 are stored in the Household level.
- W4 and W4xHH are stored in the LDJ level.
- W5, W5xHH, JJxSC, JOTxSC, JTTxSC and JD are stored in the Trip level.
- W6 is stored in the Attitudes level.

No weighting matrix or W0

If no weighting matrix is applied, this gives unweighted results for the interview sample.

W1

Unweighted diary sample - this gives unweighted results for the diary sample only. (This is equivalent to the results produced before the weighting strategy was introduced and can be used to generate unweighted sample sizes for analysis of the diary sample. It is effectively the same as the OutCom_B02ID variable mentioned above – formerly named the ‘status’ variable).

W2

Diary sample household weight – (adjusts for non-response) apply to all analysis of the diary sample at **household, individual and vehicle** level.

W3

Interview sample household weight - apply to all analysis of the interview sample at **household, individual** and **vehicle** level.

W4

LDJ weight incorporating household weight - apply to all analysis at **LDJ** level

W4xhh

LDJ weight excluding household weight – apply only if also applying a household weight (i.e. W2 or W3)

W5

Trip/stage weight - apply to all analysis of **trip** and **stage** data

W5xhh

Trip/stage weight excluding household weight - apply only if also applying a household weight (i.e. W2 or W3)

W6

Attitudes weight – This is new from 2016. Apply to questions on the Attitude level.

- For most analyses at household, individual and vehicle level, w3 should be applied.
- For most analyses of travel patterns, w5 should be applied to trip/stage data and w2 should be applied at the individual level in order to calculate rates. In addition, the short walk weights should be applied (see 'Short walk weighting' above).

Examples of applying weights:

- To generate trip rates - apply w5 to trip data and apply w2 to individual data (i.e. Diary sample)
- To calculate household car ownership - apply w3 to the household data (Interview sample)
- To calculate the proportion of driving licence holders - apply w3 to the individual data (Interview sample)
- To determine the unweighted sample size for trip rate analysis - apply w1 to the trip data and w1 to the individual data (Diary sample)
- To determine the unweighted sample size for household car ownership or driving licence figures - apply no weights or w0 (Interview sample)

Long distance journey (LDJ) weights

Long distance journeys (trips over 50 miles) are collected in two ways in the NTS – via the travel diary and in the interview.

From 2002-2005 long distance trips were collected during the interview for an additional period of 3 weeks prior to the start of the travel diary. From 2006 onwards, they have been collected during the single week prior to the placement interview.

Analysis of the LDJ data a few years ago highlighted concerns over the quality of the interview recall data compared to the data collected during the travel week via the diary. Therefore the LDJ weighting methodology was revised back to 2006 to take account of the systematic under-reporting of shorter long distance journeys. The re-weighting had little impact upon the overall LDJ trip rates. However, it resulted in a downward adjustment to distance estimates.

Revisions

The following are the main changes made to the 2002-2012 datasets which account for the difference in the datasets for 2002-2010 previously available from the UK Data Service.

SQL processing of 2008-2012 raw data

Due to changed imputation methodologies for key variables, e.g. trip mode and purpose, the trip data processed in SQL for 2008-2010 needed to be re-weighted. In most cases the overall results have changed very little from those processed in the old database.

Geographic data

A full recode of all geographic variables at all levels was conducted so that there was a consistent time series available at household level. This included creating a new Area Type variable which now correctly allocates households in South Yorkshire to the Metropolitan built-up areas category. This recoding also now makes the allocation of Scottish postcodes to an area type prior to 2007 consistent with 2007 onwards. More information on Area type can be found in the 2012 Notes & Definitions document. All published results tables by region and area type are now all based on household geographies rather than at the PSU level so there are some minor differences.

Ticket data

The data on tickets used and the associated costs for each stage have been re-processed in a consistent way for all years from 2002. These data are now available in a separate ticket file – previously they were within the individual data file.

Corrections

Whilst working on the database redevelopment project some errors were found in the processing of some NTS data in Quantum Quanvert. These errors have been corrected in the

new SQL database and therefore the raw datasets. The allocation of 'missing' (NA) and 'does not apply' (DNA) cases has also been made consistent over all years.

Imputation indicators

The NTS now includes imputation indicators in the data files for Household, Vehicle, Individual, Trip and Stage for some key variables from 2008 onwards. These indicators inform users if the value was originally missing and hence imputed.

Weighted and unweighted sample sizes, 1995-2016

Sample numbers on which analyses are based: England, 1995 to 2016¹

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Household sample | | | | | | | | | | | | | | | | | | | | | | |
| Unweighted diary | 2,733 | 2,747 | 2,711 | 2,503 | 2,559 | 2,957 | 2,990 | 6,301 | 7,052 | 6,951 | 7,166 | 7,056 | 7,145 | 6,965 | 7,225 | 6,970 | 6,668 | 7,078 | 6,830 | 6,900 | 6,572 | 6,656 |
| Unweighted interview | 2,982 | 3,000 | 3,000 | 2,819 | 2,879 | 3,255 | 3,232 | 7,537 | 7,853 | 7,692 | 8,065 | 7,884 | 7,879 | 7,665 | 7,859 | 7,534 | 7,290 | 7,725 | 7,822 | 7,439 | 7,564 | 7,328 |
| Weighted diary | 2,749 | 2,753 | 2,698 | 2,510 | 2,585 | 2,945 | 3,002 | 6,388 | 7,100 | 6,980 | 7,251 | 7,124 | 7,227 | 6,983 | 7,186 | 6,945 | 6,624 | 7,038 | 6,830 | 6,900 | 6,572 | 6,656 |
| Weighted interview | 2,987 | 3,005 | 2,977 | 2,816 | 2,897 | 3,248 | 3,254 | 7,593 | 7,898 | 7,738 | 8,137 | 7,950 | 7,957 | 7,695 | 7,822 | 7,520 | 7,257 | 7,701 | 7,822 | 7,439 | 7,564 | 7,328 |
| Individual sample | | | | | | | | | | | | | | | | | | | | | | |
| Unweighted diary | 6,580 | 6,587 | 6,454 | 5,876 | 5,927 | 6,936 | 6,883 | 14,369 | 16,685 | 16,487 | 16,956 | 16,648 | 16,858 | 16,360 | 17,299 | 16,553 | 15,730 | 16,670 | 16,192 | 16,491 | 15,525 | 15,840 |
| Unweighted interview | 7,296 | 7,307 | 7,325 | 6,839 | 6,846 | 7,783 | 7,581 | 17,851 | 18,876 | 18,506 | 19,402 | 18,945 | 18,763 | 18,218 | 18,956 | 18,061 | 17,366 | 18,441 | 18,765 | 17,909 | 18,071 | 17,633 |
| Weighted diary | 6,581 | 6,631 | 6,417 | 6,003 | 6,122 | 6,964 | 7,022 | 15,068 | 16,888 | 16,630 | 17,321 | 17,063 | 17,201 | 16,608 | 17,180 | 16,582 | 15,850 | 16,900 | 16,411 | 16,624 | 15,772 | 16,025 |
| Weighted interview | 7,156 | 7,235 | 7,089 | 6,743 | 6,850 | 7,669 | 7,600 | 17,906 | 18,778 | 18,412 | 19,420 | 19,049 | 18,942 | 18,303 | 18,724 | 17,974 | 17,337 | 18,486 | 18,786 | 17,913 | 18,149 | 17,662 |
| Child (<16 yrs) sample | | | | | | | | | | | | | | | | | | | | | | |
| Unweighted diary | 1,483 | 1,439 | 1,418 | 1,244 | 1,268 | 1,494 | 1,424 | 2,917 | 3,615 | 3,566 | 3,540 | 3,386 | 3,426 | 3,292 | 3,566 | 3,417 | 3,128 | 3,242 | 3,291 | 3,398 | 3,093 | 3,224 |
| Unweighted interview | 1,665 | 1,609 | 1,658 | 1,492 | 1,474 | 1,698 | 1,590 | 3,792 | 4,066 | 4,031 | 4,079 | 3,870 | 3,798 | 3,686 | 3,892 | 3,710 | 3,442 | 3,626 | 3,831 | 3,699 | 3,601 | 3,604 |
| Weighted diary | 1,373 | 1,411 | 1,311 | 1,257 | 1,283 | 1,434 | 1,388 | 3,042 | 3,385 | 3,292 | 3,405 | 3,334 | 3,259 | 3,180 | 3,313 | 3,208 | 3,083 | 3,266 | 3,171 | 3,224 | 3,053 | 3,108 |
| Weighted interview | 1,490 | 1,535 | 1,451 | 1,417 | 1,421 | 1,574 | 1,512 | 3,606 | 3,751 | 3,630 | 3,813 | 3,718 | 3,582 | 3,502 | 3,596 | 3,479 | 3,353 | 3,555 | 3,623 | 3,471 | 3,524 | 3,422 |
| Adult (16+) sample | | | | | | | | | | | | | | | | | | | | | | |
| Unweighted diary | 5,097 | 5,148 | 5,036 | 4,632 | 4,659 | 5,442 | 5,459 | 11,452 | 13,070 | 12,921 | 13,416 | 13,262 | 13,432 | 13,068 | 13,733 | 13,136 | 12,602 | 13,428 | 12,901 | 13,093 | 12,432 | 12,616 |
| Unweighted interview | 5,631 | 5,698 | 5,667 | 5,347 | 5,372 | 6,085 | 5,991 | 14,059 | 14,810 | 14,475 | 15,323 | 15,075 | 14,965 | 14,532 | 15,064 | 14,351 | 13,924 | 14,815 | 14,934 | 14,210 | 14,470 | 14,029 |
| Weighted diary | 5,208 | 5,220 | 5,106 | 4,746 | 4,839 | 5,530 | 5,634 | 12,026 | 13,483 | 13,338 | 13,916 | 13,729 | 13,942 | 13,428 | 13,867 | 13,375 | 12,767 | 13,634 | 13,240 | 13,400 | 12,719 | 12,916 |
| Weighted interview | 5,665 | 5,700 | 5,637 | 5,326 | 5,430 | 6,096 | 6,088 | 14,301 | 15,027 | 14,782 | 15,607 | 15,331 | 15,361 | 14,801 | 15,129 | 14,495 | 13,984 | 14,931 | 15,163 | 14,442 | 14,626 | 14,240 |
| Motor vehicle sample | | | | | | | | | | | | | | | | | | | | | | |
| Unweighted diary | 2,863 | 2,916 | 2,828 | 2,715 | 2,755 | 3,256 | 3,254 | 7,069 | 8,047 | 7,840 | 8,467 | 8,391 | 8,556 | 8,264 | 8,660 | 8,456 | 7,954 | 8,429 | 8,129 | 8,245 | 7,984 | 8,237 |
| Unweighted interview | 3,175 | 3,256 | 3,210 | 3,136 | 3,171 | 3,652 | 3,562 | 8,622 | 9,082 | 8,802 | 9,677 | 9,577 | 9,489 | 9,175 | 9,449 | 9,235 | 8,764 | 9,251 | 9,358 | 8,957 | 9,323 | 9,138 |
| Weighted diary | 2,917 | 2,995 | 2,886 | 2,789 | 2,829 | 3,306 | 3,325 | 7,328 | 8,209 | 8,019 | 8,728 | 8,566 | 8,740 | 8,405 | 8,574 | 8,442 | 7,916 | 8,324 | 8,125 | 8,262 | 7,964 | 8,251 |
| Weighted interview | 3,169 | 3,273 | 3,202 | 3,125 | 3,176 | 3,644 | 3,588 | 8,679 | 9,130 | 8,911 | 9,781 | 9,579 | 9,592 | 9,245 | 9,329 | 9,132 | 8,674 | 9,106 | 9,333 | 8,949 | 9,250 | 9,106 |
| Trip sample | | | | | | | | | | | | | | | | | | | | | | |
| Unweighted diary | 107,869 | 108,633 | 106,338 | 97,026 | 98,013 | 112,564 | 112,123 | 239,426 | 270,853 | 266,915 | 275,222 | 268,250 | 261,533 | 254,889 | 267,214 | 251,798 | 235,327 | 251,555 | 238,293 | 243,126 | 225,573 | 232,247 |
| Unweighted diary (short walks grossed up & excluding series of calls) | 133,740 | 132,968 | 131,116 | 118,550 | 117,684 | 134,345 | 133,434 | 279,407 | 317,647 | 313,666 | 324,116 | 316,721 | 303,101 | 294,605 | 312,263 | 292,332 | 273,411 | 290,893 | 273,751 | 280,052 | 259,465 | 276,450 |
| Unweighted interview | | | | | | | | | | | | | | | | | | | | | | |
| Weighted diary | 111,382 | 116,970 | 109,804 | 103,956 | 106,520 | 118,718 | 120,202 | 262,947 | 288,405 | 281,918 | 298,268 | 291,846 | 281,277 | 276,013 | 276,832 | 265,409 | 249,691 | 267,853 | 254,687 | 257,362 | 242,430 | 245,891 |
| Weighted diary (short walks grossed up & excluding series of calls) | 136,676 | 141,174 | 134,058 | 125,554 | 126,883 | 140,226 | 141,687 | 303,712 | 335,048 | 328,318 | 347,240 | 341,057 | 322,150 | 316,186 | 320,929 | 305,486 | 288,749 | 307,974 | 290,413 | 293,801 | 276,521 | 293,250 |
| Weighted interview | | | | | | | | | | | | | | | | | | | | | | |
| Stage sample | | | | | | | | | | | | | | | | | | | | | | |
| Unweighted diary | 112,759 | 112,932 | 110,652 | 100,946 | 102,051 | 118,097 | 115,696 | 248,526 | 281,917 | 278,077 | 287,259 | 280,786 | 274,002 | 267,357 | 280,135 | 264,653 | 246,611 | 263,966 | 250,381 | 255,520 | 237,563 | 244,768 |
| Unweighted diary (short walks grossed up & excluding series of calls) | 149,298 | 146,885 | 145,096 | 129,826 | 129,690 | 149,022 | 143,907 | 299,727 | 341,545 | 338,340 | 350,595 | 344,479 | 330,936 | 321,557 | 341,528 | 321,633 | 299,059 | 319,090 | 301,637 | 308,089 | 287,331 | 308,921 |
| Unweighted interview | | | | | | | | | | | | | | | | | | | | | | |
| Weighted diary | 116,469 | 121,784 | 114,408 | 108,276 | 111,131 | 124,763 | 124,392 | 273,832 | 301,184 | 294,926 | 312,314 | 306,221 | 295,456 | 290,352 | 290,908 | 279,585 | 262,209 | 281,950 | 268,793 | 271,448 | 255,832 | 259,635 |
| Weighted diary (short walks grossed up & excluding series of calls) | 152,744 | 156,460 | 149,077 | 137,992 | 140,785 | 156,449 | 154,231 | 328,775 | 363,303 | 357,514 | 378,974 | 374,015 | 354,371 | 347,884 | 354,204 | 338,824 | 318,407 | 341,180 | 323,877 | 326,370 | 308,802 | 328,603 |
| Weighted interview | | | | | | | | | | | | | | | | | | | | | | |

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/550850/nts-main-sample-numbers.xls

Annex A: Example tabulation 1

NTS data users should replicate analysis produced by DfT to ensure that they understand the methodology of weighting and the grossing up of short walks.

Trips per person per year by gender and survey year

Load the journey level SPSS data file 'Trip.sav'

Load the individual level SPSS data file 'Individual.sav'

Before performing the analysis you should ensure that both files are sorted based on the key identifier variables at each level.

Select the **Trip** file.

From the menu select **Data -> Sort Cases**

Highlight **TripID** and move over to the 'Sort by' list. Ensure that **ascending** is checked.

The 'Sort by' list should contain:

TripID (A)

Select OK.

Select the **Individual** file.

From the menu select **Data -> Sort Cases**

Highlighting **IndividualID** and move over to the 'Sort by' list. Ensure that ascending is checked.

The 'Sort by' list should contain

IndividualID (A)

Select OK.

To disaggregate the data by the gender of the individual making the trip, individual level data needs to be attached to the trip file.

Select the **Trip** file.

From the menu **select Data -> Merge files -> Add variables**

Select '**An open dataset**' and then select file '**Individual.sav**'

Select continue.

Data should be linked using the identifier variable at individual level – **IndividualID**.

Check '**Match cases on key variables**' and '**Cases are sorted in order of key variables in both datasets**'

Check '**Non-active dataset is keyed table**'

From the excluded variables list highlight IndividualID and move to the key variables box

Select OK.

A message will appear 'Warning: Keyed match will fail if data are not sorted in ascending order of key variables'

This can be ignored as we have already ensured the correct sorting order.

The individual characteristics of the person making each trip will now be attached to the journey data.

Before producing the tabulation of gender by survey year, the weighting must be specified:

From the menu select Data -> Weight cases

Check 'Weight cases by' and move across W5 (trip weight) as the frequency variable.

Select OK.

The tabulation can now be specified.

From the menu select **Analyze -> Compare Means -> Means**

To gross up short walks we must use variable **JJXSC** as the dependent list variable.

Move JJXSC across to 'Dependent List'

Select **Gender** as the layer 1 variable by moving **Sex_B01ID** across to the independent list selection

Select 'Next' to choose the 2nd layer variable

Select **Survey Year** as the layer 2 variable by moving **SurveyYear** across to the independent list selection

Select '**Options**' to determine the type of statistics to perform.

Move '**Sum**' across to the 'Cell statistics' box. Remove all other statistics.

Select continue.

Select OK.

The following SPSS output should be produced:

Report

Sum

| Sex of person | Survey year - actual year | Number of trips - grossing up short walks and excluding series of calls |
|---------------|---------------------------|---|
| Male | 2002 | 170087 |
| | 2003 | 188735 |
| | 2004 | 183612 |
| | 2005 | 194585 |
| | 2006 | 188663 |
| | 2007 | 177980 |
| | 2008 | 175774 |
| | 2009 | 177365 |
| | 2010 | 169684 |
| | 2011 | 161512 |
| | 2012 | 172216 |
| | Total | 1960213 |
| | Female | 2002 |
| 2003 | | 199417 |
| 2004 | | 196275 |
| 2005 | | 207770 |
| 2006 | | 205150 |
| 2007 | | 193844 |
| 2008 | | 190552 |
| 2009 | | 194107 |
| 2010 | | 185215 |
| 2011 | | 175516 |
| 2012 | | 185400 |
| Total | | 2114284 |
| Total | | 2002 |
| | 2003 | 388152 |
| | 2004 | 379887 |
| | 2005 | 402356 |
| | 2006 | 393812 |
| | 2007 | 371823 |
| | 2008 | 366326 |
| | 2009 | 371473 |
| | 2010 | 354900 |
| | 2011 | 337029 |
| | 2012 | 357616 |
| | Total | 4074497 |

These are the weighted and grossed up number of trips *per week* for each gender/survey year combination.

For each gender/survey year the weighted number of individuals also needs to be known.
 Note – it is standard NTS methodology to include all respondents in the denominator not just those making a trip.

Select the '**Individual.sav**' file.

Before producing the tabulation of gender by survey year, the weighting must be specified

From the menu select **Data -> Weight cases**

Check '**Weight cases by**' and move across **W2** (household non-response weight) as the frequency variable.

Select OK.

The tabulation can now be specified.

From the menu select '**Analyze**' -> '**Descriptive Statistics**' -> '**Crosstabs**'

Move **Survey Year** across to the row specification box

Move **Sex_B01ID** across to the column specification box

Select **Cells** and in the **Non-integer weights** section select '**No adjustments**'

Select OK.

The following SPSS output should be produced:

Survey year - actual year * Sex of person Crosstabulation

Count

| | | Sex of person | | Total |
|---------------------------|-------|---------------|------------|------------|
| | | Male | Female | |
| Survey year - actual year | 2002 | 8549.647 | 8944.077 | 17493.723 |
| | 2003 | 9578.418 | 9999.596 | 19578.014 |
| | 2004 | 9451.343 | 9850.284 | 19301.626 |
| | 2005 | 9843.876 | 10259.522 | 20103.397 |
| | 2006 | 9699.779 | 10093.774 | 19793.553 |
| | 2007 | 9772.677 | 10167.305 | 19939.982 |
| | 2008 | 9454.678 | 9798.554 | 19253.233 |
| | 2009 | 9770.212 | 10147.339 | 19917.551 |
| | 2010 | 9435.616 | 9774.031 | 19209.647 |
| | 2011 | 9008.588 | 9330.581 | 18339.169 |
| | 2012 | 9604.327 | 9942.373 | 19546.700 |
| | Total | | 104169.160 | 108307.436 |

The trip counts can now be divided by the individual sample. It should be noted that the trip counts are for a single week so therefore need to be multiplied by 52.14 (number of weeks in a year).

$$\begin{aligned} \text{e.g. Trips per male in 2002} &= \frac{170,087}{8,549.647} \times 52.14 \\ &= 1,037 \end{aligned}$$

The following results should be calculated showing trips per person per year by gender:

| | Year | Trip rate |
|-----------------|-----------------|------------------|
| Male | 2002 | 1037 |
| | 2003 | 1027 |
| | 2004 | 1013 |
| | 2005 | 1031 |
| | 2006 | 1014 |
| | 2007 | 950 |
| | 2008 | 969 |
| | 2009 | 947 |
| | 2010 | 938 |
| | 2011 | 935 |
| | 2012 | 935 |
| | 2002/12 average | 981 |
| | Female | 2002 |
| 2003 | | 1040 |
| 2004 | | 1039 |
| 2005 | | 1056 |
| 2006 | | 1060 |
| 2007 | | 994 |
| 2008 | | 1014 |
| 2009 | | 997 |
| 2010 | | 988 |
| 2011 | | 981 |
| 2012 | | 972 |
| 2002/12 average | | 1018 |
| Total | | 2002 |
| | 2003 | 1034 |
| | 2004 | 1026 |
| | 2005 | 1044 |
| | 2006 | 1037 |
| | 2007 | 972 |
| | 2008 | 992 |
| | 2009 | 972 |
| | 2010 | 963 |
| | 2011 | 958 |
| | 2012 | 954 |
| | 2002/12 average | 1000 |

Finally, repeat the above step using W1 to get the unweighted number of individuals. This needs to be known to ensure that the base sample sizes are sufficient.

Select the **'Individual.sav'** file.

Before producing the tabulation of gender by survey year, the weighting must be specified

From the menu select **Data -> Weight cases**

Check **'Weight cases by'** and move across **W1** (unweighted diary weight) as the frequency variable.

Select OK.

The tabulation can now be specified.

From the menu select **'Analyze' -> 'Descriptive Statistics' -> 'Crosstabs'**

Move **Survey Year** across to the row specification box

Move **Sex_B01ID** across to the column specification box

Select OK.

The following SPSS output should be produced:

Survey year - actual year * Sex of person Crosstabulation

Count

| | | Sex of person | | Total |
|---------------------------|-------|---------------|------------|------------|
| | | Male | Female | |
| Survey year - actual year | 2002 | 8085.000 | 8801.000 | 16886.000 |
| | 2003 | 9360.000 | 10107.000 | 19467.000 |
| | 2004 | 9219.000 | 9980.000 | 19199.000 |
| | 2005 | 9560.000 | 10344.000 | 19904.000 |
| | 2006 | 9396.000 | 10094.000 | 19490.000 |
| | 2007 | 9490.000 | 10245.000 | 19735.000 |
| | 2008 | 9127.000 | 9856.000 | 18983.000 |
| | 2009 | 9583.000 | 10331.000 | 19914.000 |
| | 2010 | 9232.000 | 9840.000 | 19072.000 |
| | 2011 | 8718.000 | 9351.000 | 18069.000 |
| | 2012 | 9244.000 | 9910.000 | 19154.000 |
| | Total | | 101014.000 | 108859.000 |

Annex B: Example tabulation 2

Miles per person per year, by mode (at stage level)

Load the stage level data file 'Stage.sav'

Load the individual level data file 'Individual.sav'

Before performing the analysis you should ensure that both files are sorted based on the key identifier variables at each level.

Select the **Stage** file.

From the menu select **Data -> Sort Cases**

Highlight **StagelD** and move over to the 'Sort by' list. Ensure that ascending is checked.

Select OK.

Select the **Individual** file.

From the menu select **Data -> Sort Cases**

Highlighting **IndividualID** and move over to the 'Sort by' list. Ensure that ascending is checked.

Select OK.

Before producing the tabulation of stage distance by survey year and mode, the weighting must be specified.

Select the **Stage** file

From the menu select **Data -> Weight cases**

Check '**Weight cases by**' and move across **W5** (stage weight) as the frequency variable.

Select OK.

The tabulation can now be specified.

From the menu select **Analyze -> Compare Means -> Means**

To gross up short walks we must use variable **SD** as the dependent list variable.

Move **SD** across to 'Dependent List'

Select **SurveyYear** as the layer 1 variable by moving it across to the independent list selection

Select 'Next' to choose the 2nd layer variable

Select **Stage Mode** as the layer 2 variable by moving **StageMode_B01ID** across to the independent list selection

Select '**Options**' to determine the type of statistics to perform.

Move '**Sum**' across to the '**Cell statistics**' box. Remove all other statistics.

Select continue.

Select OK.

The following output should be produced (for all years down to 2012):

| Report | | |
|---------------------------|---|--|
| Sum | | |
| Survey year - actual year | Stage mode of travel - as recorded in diary - 18 categories | Stage distance - grossing up short walks |
| 2002 | Walk | 66278.50 |
| | Bicycle | 12132.08 |
| | Private (hire) bus | 41637.52 |
| | Car | 1845539.78 |
| | Motorcycle, scooter, moped | 11629.80 |
| | Van/lorry | 92132.81 |
| | Other private | 6914.02 |
| | London stage bus | 18742.35 |
| | Other stage bus | 75319.03 |
| | Coach/Express bus | 10923.44 |
| | Excursion/Tour bus | 9005.67 |
| | London Underground | 27065.54 |
| | Surface Rail | 138536.02 |
| | Light rail | 2536.75 |
| | Air | 14752.25 |
| | Taxi | 13266.63 |
| | Minicab | 6594.07 |
| | Other public | 1073.24 |
| | Total | 2394079.50 |

These are the weighted and grossed up number of stage distances *per week* for each survey year/mode combination.

For each mode/survey year the number of individuals also needs to be known. Note – it is standard NTS methodology to include all respondents in the denominator not just those making a trip.

Before producing the tabulation of mode by survey year, the weighting must be specified.

Select the '**Individual.sav**' file.

From the menu select '**Analyze**' -> '**Descriptive Statistics**' -> '**Frequencies**'

Move **Survey Year** across to the Column box

Select OK.

The tabulation can now be specified.

The following output should be produced:

| Survey year - actual year | | | | | |
|---------------------------|-------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 2002 | 17494 | 8.2 | 8.2 | 8.2 |
| | 2003 | 19578 | 9.2 | 9.2 | 17.4 |
| | 2004 | 19302 | 9.1 | 9.1 | 26.5 |
| | 2005 | 20103 | 9.5 | 9.5 | 36.0 |
| | 2006 | 19794 | 9.3 | 9.3 | 45.3 |
| | 2007 | 19940 | 9.4 | 9.4 | 54.7 |
| | 2008 | 19253 | 9.1 | 9.1 | 63.8 |
| | 2009 | 19918 | 9.4 | 9.4 | 73.1 |
| | 2010 | 19210 | 9.0 | 9.0 | 82.2 |
| | 2011 | 18339 | 8.6 | 8.6 | 90.8 |
| | 2012 | 19547 | 9.2 | 9.2 | 100.0 |
| | Total | 212477 | 100.0 | 100.0 | |

The stage distances can now be divided by the individual sample (the frequency column). It should be noted that the stage distances are for a single week so therefore need to be multiplied by 52.14 (number of weeks in a year).

$$\begin{aligned} \text{e.g. Trips per male in 2002} &= \frac{66278.50}{17,494} \times 52.14 \\ &= 197.54 \end{aligned}$$

As in Annex A, repeat the above step using W1 to get the unweighted number of individuals. This needs to be known to ensure that the base sample sizes are sufficient.

Select the '**Individual.sav**' file.

From the menu select **Data -> Weight cases**

Check '**Weight cases by**' and move across **W1** (unweighted diary weight) as the frequency variable.

Select OK.

The tabulation can now be specified.

From the menu select '**Analyze**' -> '**Descriptive Statistics**' -> '**Frequencies**'

Move **Survey Year** across to the Column box

Select OK.

The following SPSS output should be produced:

Survey year - actual year

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | 2002 | 16886 | 8.0 | 8.0 | 8.0 |
| | 2003 | 19467 | 9.3 | 9.3 | 17.3 |
| | 2004 | 19199 | 9.1 | 9.1 | 26.5 |
| | 2005 | 19904 | 9.5 | 9.5 | 36.0 |
| | 2006 | 19490 | 9.3 | 9.3 | 45.2 |
| | 2007 | 19735 | 9.4 | 9.4 | 54.6 |
| | 2008 | 18983 | 9.0 | 9.0 | 63.7 |
| | 2009 | 19914 | 9.5 | 9.5 | 73.2 |
| | 2010 | 19072 | 9.1 | 9.1 | 82.3 |
| | 2011 | 18069 | 8.6 | 8.6 | 90.9 |
| | 2012 | 19154 | 9.1 | 9.1 | 100.0 |
| | Total | 209873 | 100.0 | 100.0 | |

In addition, the unweighted number of stages for each mode should be obtained to ensure that the sample sizes on which the miles are based are sufficient.

Annex C: Example tabulation 3 – Multi-coded data

Reasons for not learning to drive by age

Load the individual level data file 'Individual.sav'

Before producing the tabulation of individuals and their reasons for not learning to drive by age, the weighting must be specified.

From the menu select **Data -> Weight cases**

Check '**Weight cases by**' and move across **W3** (interview sample weight) as the frequency variable.

Select OK.

In this case we are only interested in data for 2012. To restrict the data file to cases for 2012 only:

From the menu select **Data -> Select cases**

Check '**If condition is satisfied**' and select **If...**

Move **SurveyYear** across to the definition box and enter '**=2012**'.

The box should read '**SurveyYear=2012**'.

Select OK.

Any outputs will now only use individuals from the 2012 survey.

The tabulation can now be specified.

From the menu select '**Analyze**' -> '**Descriptive Statistics**' -> '**Crosstabs**'

Move **ResNDN_A_B01ID** across to the row specification box

Repeat this step for all **ResNDN** variables (B to P).

Move **Age_B04ID** across to the column specification box

Select **Cells** and in the **Non-integer weights** section select '**No adjustments**'

Select OK.

The following SPSS output should be produced (for each response variable – there are 16 possible responses, A-P):

Reason individual does not drive - Family or friends can drive me when necessary * Age of person - banded age - Band D - All ages - 9 categories * Survey year - actual year Crosstabulation

Count

| Survey year - actual year | | | Age of person - banded age - Band D - All ages - 9 categories | | | | | | | | Total | |
|---------------------------|--|----------|---|--------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------|------------|
| | | | 0 - 4 years | 5 - 10 years | 11 - 16 years | 17 - 20 years | 21 - 29 years | 30 - 39 years | 40 - 49 years | 50 - 59 years | | 60 years + |
| 2012 | Reason individual does not drive - Family or friends can drive me when necessary | Yes | .000 | .000 | .000 | 132.966 | 166.050 | 133.267 | 111.638 | 134.147 | 417.959 | 1096.027 |
| | | No | 1348.569 | 1454.680 | 1525.500 | 910.225 | 2419.969 | 2700.392 | 3063.582 | 2520.721 | 4345.085 | 20288.725 |
| | Total | 1348.569 | 1454.680 | 1525.500 | 1043.191 | 2586.019 | 2833.659 | 3175.221 | 2654.868 | 4763.045 | 21384.752 | |
| Total | Reason individual does not drive - Family or friends can drive me when necessary | Yes | .000 | .000 | .000 | 132.966 | 166.050 | 133.267 | 111.638 | 134.147 | 417.959 | 1096.027 |
| | | No | 1348.569 | 1454.680 | 1525.500 | 910.225 | 2419.969 | 2700.392 | 3063.582 | 2520.721 | 4345.085 | 20288.725 |
| | Total | 1348.569 | 1454.680 | 1525.500 | 1043.191 | 2586.019 | 2833.659 | 3175.221 | 2654.868 | 4763.045 | 21384.752 | |

The weighted number of individuals also needs to be known.

First, turn the weighting off:

From the menu select **Data -> Weight cases**

Check '**Do not weight cases**'

Select OK.

Next, we must ensure that we are only counting individuals who have been asked their reasons for not learning to drive.

From the menu select **Data -> Select cases**

Select **If...** condition.

Edit the definition to select individuals answering the question.

The box should read '**SurveyYear=2012 & (ResNDN_NA_B01ID=2 & ResNDN_DNA_B01ID=2 & ResNDN_DEAD_B01ID=2)**'.

Select OK.

The tabulation can now be specified:

From the menu select **Analyze -> Compare Means -> Means**

To count the weighted number of individuals we need to count **W3**.

Move **W3** across to 'Dependent List'

Select **Age_B04ID** as the layer 1 variable by moving it across to the independent list selection

Select '**Options**' to determine the type of statistics to perform.

Move '**Sum**' across to the '**Cell statistics**' box. Remove all other statistics.

Select continue.

Select OK.

The following SPSS output should be produced:

Report

Sum

| Age of person - banded age - Band D - All ages - 9 categories | Weighted interview sample |
|---|---------------------------------|
| 17 - 20 years | 447.1548920 |
| 21 - 29 years | 696.8862122 |
| 30 - 39 years | 531.8084065 |
| 40 - 49 years | 449.5771186 |
| 50 - 59 years | 470.9010953 |
| 60 years + | 1161.584938 |
| Total | 3757.912662 |

To calculate all percentages (as in NTS0203) divide the weighted number of individuals for each response and age group by the relevant total number of individuals.

e.g. Percentage of individuals aged 17-20 with the reason 'Family or friends can drive me when necessary' given =

$$\frac{132.9655693}{447.1548920} \times 100 = 30\%$$

Repeat, the above step with **W0** (no weight) to get the unweighted number of individuals.

The following SPSS output should be produced:

Report

Sum

| Age of person - banded age - Band D - All ages - 9 categories | Unweighted interview sample |
|---|-----------------------------|
| 17 - 20 years | 429 |
| 21 - 29 years | 585 |
| 30 - 39 years | 465 |
| 40 - 49 years | 401 |
| 50 - 59 years | 470 |
| 60 years + | 1240 |
| Total | 3590 |