





## Background Quality Report: Travel Survey for Northern Ireland (TSNI) Reports

Dimension	Assessment by the author
Introduction	Context for the quality report.
	The Travel Survey for Northern Ireland (TSNI) began in Northern Ireland as a continuous survey in 1999. It is conducted over a calendar year (from January to December). The sample size is relatively small and therefore three years of data need to be combined to ensure the analysis carried out is robust. The first results were published in 2003 for the period 1999-2001. The latest reports cover the 2016-2018 time period.
	Information for the survey is collected using two methods. Individuals complete a seven day travel diary, which collects information on all journeys 50 metres or more. Personal information including questions on travel are also collected in a computer interview conducted by a survey interviewer.
	Each year Analysis, Statistics and Research Branch (ASRB) in the Department for Infrastructure (Dfl) receive SPSS databases containing the TSNI data for the latest three year period from Central Survey Unit (CSU) in the Northern Ireland Statistics and Research Agency (NISRA). The production timetable is dependent on when CSU sends the data. When CSU provide the data around end of May/beginning of June, ASRB (after some work validating the data) produce and publish the Headline Report in July and the In-depth Report early the following year. TSNI reports are published on the Department for Infrastructure website at:  https://www.infrastructure-ni.gov.uk/articles/travel-survey-northern-ireland
	Information on the survey methodology and data quality are published in the annual TSNI Technical Report available at: <a href="https://www.infrastructure-ni.gov.uk/articles/travel-survey-northern-ireland">https://www.infrastructure-ni.gov.uk/articles/travel-survey-northern-ireland</a>
Relevance	The degree to which the statistical product meets user needs in both coverage and content.
	The survey is asked to a representative sample of the Northern Ireland population. The annual sample size is relatively small and therefore three years of data need to be combined to ensure the analysis carried out is robust but, for certain stable groups of the sample, limited information for shorter (one year) periods of time is available.
	The TSNI Headline Report covers key statistics on personal travel such as average number of journeys and average distance travelled by mode of travel and by journey purpose. This is produced and published as soon as possible after the data are received.
	The In-depth Report includes the above as well as analysis from the household and individual questionnaires and breakdowns by age and gender, by urban-rural and by Local Government District (LGD). Since 2016-2018, the report includes the following sections: 'All travel modes', 'Walking', 'Cycling', 'Public transport', 'Driving, driver and passenger trips', 'Journey purpose', 'Travelling to work', 'Shopping' and 'Key tables by urban-rural'.

The reports have been adapted over the years to keep them relevant e.g. the inclusion of data to monitor Indicator 25 of the draft Programme for Government 2016-2021, analysis of new questions added to the survey, the removal of obsolete classifications, the addition of analysis by the new 11 LGDs. Any changes to publications from previous years are detailed at the start of the report.

The In-depth Report was redesigned for the 2016-2018 edition following feedback from various user engagement activities (see below). It was updated to reflect current statistical and data visualisation methods. In addition, information was reorganised into themed sections so users can easily identify the data they are most interested in.

The TSNI reports are used by a wide variety of users for a range of purposes. Dfl uses the information to inform policy, set objectives and monitor performance in relation to travel in Northern Ireland, for example in the draft Programme for Government 2016-2021. It provides information on areas such as active travel, safe and sustainable travel, accessible transport and equality monitoring. TSNI data are also used in DAERA's NI Environmental Statistics report. Private companies may use the data to look at travel trends, academics for research and other government Departments and Agencies to inform cross-cutting policy and strategy development.

ASRB ensures that the TSNI reports remain relevant to users through user engagement meetings with key users of the survey. A comprehensive user consultation was carried out in 2019. Details of user engagement activities, results from the user consultation survey and a Statement of User Needs based on the feedback received have been published and are available in the TSNI user engagement section of the Dfl website: <a href="https://www.infrastructure-ni.gov.uk/articles/travel-survey-northern-ireland-user-engagement">https://www.infrastructure-ni.gov.uk/articles/travel-survey-northern-ireland-user-engagement</a>

There is also a customer satisfaction survey, which includes a question on whether the publication meets their needs, sent out each time a report is released to collect feedback from users.

All these sources help to shape the information collected and the content of the reports. In this way, the needs of the user communities are continuously monitored, and if appropriate and practical, acted upon. For example:

- New questions were added on cross-border travel following a request from the EU Exit Branch in the Department for the Economy.
- The redesign of the In-depth Report based on the results of the 2019 user consultation

# Accuracy and Reliability

#### The proximity between an estimate and the unknown true value.

Data are from a sample survey i.e. not asked of the whole population of Northern Ireland. A sample is drawn from the Land & Property Services (LPS) list of private addresses, the most up-to-date listing of private households, using a methodology which is designed to provide representative geographic coverage across Northern Ireland.

As estimates from a sample survey depend on the particular sample chosen, they may differ from the true values of the population. This variance from the true population value is measured using a confidence interval. The confidence intervals published for TSNI data are 95% confidence intervals. This means there is a 95% probability that the true population value is contained within the range of values given. Confidence intervals for the TSNI are published in the

Technical Report:

https://www.infrastructure-ni.gov.uk/articles/travel-survey-northern-ireland

The annual sample size for the TSNI is relatively small (around 1,000 households) so 3 years of data need to be combined to ensure the analysis carried out is robust. However, for certain stable groups of the sample, limited information for shorter (one year) periods of time is published.

When reporting differences in the publication, the data are tested to see if they are statistically significant at the 5% level. A reported increase or decrease means there is at least a 95% probability that there is a genuine difference between results and the difference is not simply explained by random chance or sample error.

Quality assurance checks are carried out when the TSNI databases are received to ensure data are complete and there are no inconsistent cases. Validation checks are also carried out on every piece of analysis to ensure they are in line with other results from the same data source and with previous trends e.g. any large increases or decreases are investigated.

Previous TSNI reports are revised if necessary and appropriate. All revisions are conducted in line with ASRB's revisions policy which can be found in Dfl's Code of Practice for Statistics supporting statements: <a href="https://www.infrastructure-ni.gov.uk/publications/code-practice-statistics-supporting-statements">https://www.infrastructure-ni.gov.uk/publications/code-practice-statistics-supporting-statements</a>

# Timeliness and Punctuality

Timeliness refers to the time gap between publication and the reference period. Punctuality refers to the gap between planned and actual publication dates.

Data for the Travel Survey for Northern Ireland are for a calendar year e.g data for 2016-2018 refers to the time period 1<sup>st</sup> January 2016 to 31<sup>st</sup> December 2018.

Central Survey Unit send the data for the latest 3 year period after they have completed their processing (including validation processes, the entry of information from the paper travel diaries etc.). The report production timetable depends on when the data are received. The TSNI Headline Report is published as soon as possible after the data are received. The TSNI In-depth Report contains more tables and detailed analysis and requires a longer production period.

When CSU supply the data at the end of May/beginning of June, the production timetable is as follows:

- The TSNI Headline Report is usually published at the beginning of July.
  This is a time lag of just over 6 months between the end of the reference
  period and publication and just over 1 month between receipt of the data
  and publication.
- The TSNI In-depth Report is usually published early the following year, a
  time lag of just over one year between the end of the reference period and
  publication and around 8 months between receipt of the data and
  publication. The In-depth Report has undergone a number of major
  changes recently (see Relevance section). Once the new format has been
  established, we will investigate if the time lag can be reduced.

A delay to the delivery of the data will have a knock on effect, leading to a delay in the publication of the reports.

Publication dates for the next 12 months are available on the Dfl website in the upcoming statistical releases section:

https://www.infrastructure-ni.gov.uk/publications/upcoming-statistical-releases and, closer to the date of release, on the UK Official and National Statistics Publication Hub of the gov.uk website (the link is for Dfl publications):

https://www.gov.uk/search/research-and-

<u>statistics?content\_store\_document\_type=upcoming\_statistics&organisations%</u> 5B%5D=department-for-infrastructure-northern-ireland

All TSNI publications have been released on the finalised pre-announced date although there may have been changes to the provisional date. Changes to the provisional date are made by updating the publication date on the Dfl website and, if necessary, the Publication Hub on gov.uk. Where the usual provisional publication date has been delayed by more than a month, the delay is announced and explained on the TSNI home page and the new publication date specified. If necessary, updates are given regularly. This same process would be followed in the event of a change to a finalised pre-announced release date.

# Accessibility and Clarity

Accessibility is the ease with which users are able to access the data, also reflecting the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the metadata, illustrations and accompanying advice.

All the TSNI reports are available to download free of charge in PDF format from the DfI website:

https://www.infrastructure-ni.gov.uk/articles/travel-survey-northern-ireland

The statistical tables are also available to download in MS Excel format and ODS (Open Document Spreadsheet) format, from this webpage. If requested, ASRB provide hard copies or other suitable media.

The publications are also accessible through the UK Official and National Statistics Publication Hub on the gov.uk website. Published Dfl publications are available at:

https://www.gov.uk/search/research-and-

statistics?content\_store\_document\_type=statistics\_published&organisations% 5B%5D=department-for-infrastructure-northern-ireland&order=updated-newest

User Information and Definitions sections are included as part of each of the publications. In addition, where necessary, explanatory footnotes are included in the tables. There is also a TSNI Technical Report published annually which contains details of the survey methodology, confidence intervals and the survey questionnaire.

The reports contain contact details of the responsible statistician in case further information is required. Additional ad-hoc analysis, where appropriate, is provided on request.

## Coherence and Comparability

Coherence is the degree to which data that are derived from different sources or methods, but refer to the same topic, are similar. Comparability is the degree to which data can be compared over time and domain.

The TSNI is the only source of information on how, over the region as a whole, people use different forms of transport to meet their travel needs as individuals or family groups in Northern Ireland. As such there is no exact comparison with any other data sources. However, comparisons are made to ensure the demographic/geographic breakdowns (i.e. gender, age, Local Government

District) are in line with the mid-year estimates of population. Where a similar question is asked in another survey (e.g. car ownership) comparisons are made to check that data are consistent. Some comparisons are also made with bus and train passenger journeys produced by Translink.

All surveys conducted by Central Survey Unit follow harmonisation guidelines produced by the Office for National Statistics (ONS). This means that, especially for demographic data, questions are asked in the same way and are therefore comparable.

Comparisons can be made over time as there has been no fundamental change to the survey methodology. Data are available back to 1999-2001. However, it should be noted that questions have been added to the survey over time so not all data are available back to 1999-2001. The latest data are always compared with previous years' data, where appropriate, and any significant changes are thoroughly checked and validated.

The survey is the same throughout Northern Ireland which means some limited information is available at Local Government District (LGD) level which are comparable. However, the availability of these data are dependent on the sample sizes being large enough for robust analysis.

The settlement classifications which are used to classify areas as urban or rural were updated in 2015. Reports prior to 2013-2015 were based on the previous 2005 settlement classifications. Checks were carried out in 2013-2015 comparing TSNI data split by 2005 urban-rural definitions with TSNI data split by 2015 urban-rural definitions. There were found to be no significant differences.

The TSNI is based on the National Travel Survey (NTS), as used in Great Britain up to 2012 (NTS coverage changed to England only from 2013). Therefore comparative data for Great Britain are only available up to 2012 and comparative data for England are available up to the present.

## Trade-offs between Output Quality Components

## Trade-offs are the extent to which different aspects of quality are balanced against each other.

It could be considered that there is some trade-off between 'relevance' and 'accuracy and reliability'. The sample size of the survey is small due to cost constraints. This means that only limited analysis can take place for single years (the majority of the analysis is for three years combined) and for Local Government Districts and other sub-population breakdowns. TSNI data are only analysed if the sample size is large enough for robust analysis.

# Assessment of User Needs and Perceptions

## The processes for finding out about users and uses, and their views on the statistical products.

Data presented in this report help to meet the information needs of a wide range of internal and external users (see "Relevance" section for more details of users and uses of the TSNI reports and data). In addition to the reports, TSNI data are used to answer a number of ad-hoc queries throughout the year on a wide variety of transport and travel related topics.

ASRB have a mailing list of TSNI users who are notified each time a TSNI publication is issued. This list is updated each time a report is published to ensure it is up-to-date and that the people on it still wish to receive information about TSNI publications.

A series of user engagement meetings were carried out in 2018 with internal

and external users of the TSNI data to better understand the needs of our customers from inside and outside of the Department for Infrastructure. These meetings established how they use the TSNI data, what is most useful and if there is any further travel data that would be helpful to them. A summary of the meetings is available from the TSNI user engagement section of the DfI website:

https://www.infrastructure-ni.gov.uk/articles/travel-survey-northern-ireland-user-engagement

A comprehensive user consultation was carried out in 2019. A survey was issued asking how TSNI information is accessed, the types of TSNI information used and their opinion on proposals for future TSNI outputs. The survey received 93 full and partial responses which have been analysed. The results have been published and are available from the <a href="TSNI user engagement section">TSNI user engagement section</a> of the Dfl website.

There is an on-going ASRB customer satisfaction survey which includes a question on whether ASRB publications (including TSNI reports) meet customers' needs. The link to the survey is issued every time users are notified that a TSNI report has been published or an ad-hoc query is answered. Results are collated on a quarterly basis.

User needs are prioritised, taking account of resources available and the feasibility of any additional needs identified. A statement of user needs summarising the results of the various user engagement activities and containing a list of user requirements and actions to be taken is available from the TSNI user engagement section of the DfI website.

#### Performance, Cost and Respondent Burden

#### The effectiveness, efficiency and economy of the statistical output.

An annual survey control return is completed for the Travel Survey for Northern Ireland. The compliance burden is calculated from the median time taken to complete the survey and the number of respondents.

The achieved response rate is a good indication of respondent burden. It was 62% for the TSNI in 2016-2018, a decrease from 66% in 2015-2017. This is consistent with social surveys in general, which have seen a decrease in response rate in recent years.

### Confidentiality, Transparency and Security

## The procedures and policy used to ensure sound confidentiality, security and transparent practices.

TSNI data received by ASRB are anonymised (name/address information is not contained in the database). In addition, the data represent a sample of the population and there is no way for ASRB to identify the sample that was chosen from the population.

The databases are held on a network that is only accessible to ASRB.

Analysis is only carried out if the sample size is large enough and the data are presented as averages or percentages. There are therefore no small cells which need have disclosure control methods applied.

ASRB has produced a statement on its confidentiality processes which can be found in the Department for Infrastructure's Code of Practice for Statistics supporting statements:

https://www.infrastructure-ni.gov.uk/publications/code-practice-statistics-supporting-statements