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Travel Survey for Northern Ireland Headline Report 2020



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 **NISRA**
Northern Ireland
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Gníomhaireacht Thuaisceart Éireann
um Staitisticí agus Taighde

Key Points

Overall results

- In 2020, each person travelled, on average, 4,550 miles (approximately 12.5 miles per day).
- On average, 826 journeys were made per person in 2020 (just over 2 journeys per day).
- The average journey length was 5.5 miles during 2020.

Main mode of travel

- On average, 541 car journeys were taken per person in 2020. This equates to just under two thirds (65%) of all journeys made.
- There were 227 walking journeys per person in 2020, which represents over one quarter (27%) of all journeys made.
- In 2020, 27 public transport journeys were made per person. This equates to 3% of all journeys made.
- There was an average of 16 cycling journeys per person in 2020, 2% of all journeys made.

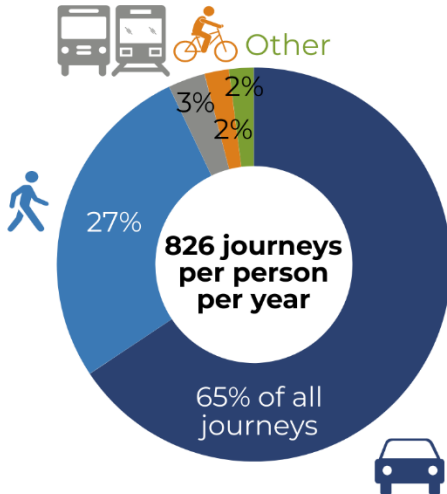
Purpose of journey

- There were 355 leisure and other journeys taken per person in 2020 (visiting friends at private home/elsewhere, entertainment/social activities, sports, holiday/day trip, other including just walk, undefined purpose). This represents over two-fifths (43%) of all journeys made.
- Each person made, on average, 146 shopping journeys during 2020, which represents almost one-fifth (18%) of all journeys made.
- On average, 132 commuting and business journeys were taken per person in 2020. This equates to 16% of all journeys made.
- There were 96 education and escort education journeys made per person in 2020 (e.g. a schoolchild going to school, a student going to college/university, a parent taking a child to school). This accounted for 12% of all journeys made.
- In 2020, 61 personal business journeys (for services such as bank, doctor or library) were taken per person, 7% of all journeys made.

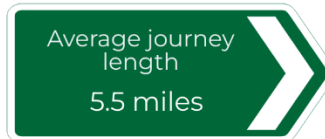
Journeys made by walking, cycling or public transport

- In 2020, one-third (33%) of all journeys were taken by walking, cycling or public transport.

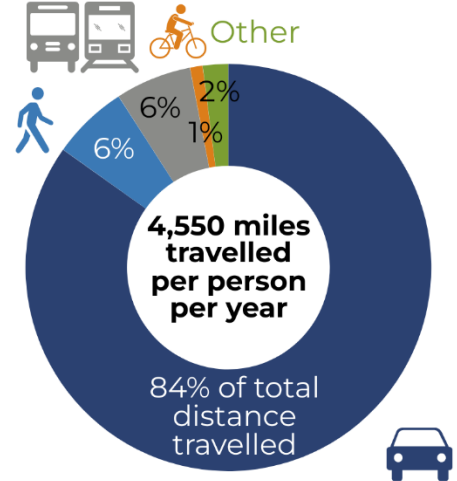
Journeys: % by main mode and average



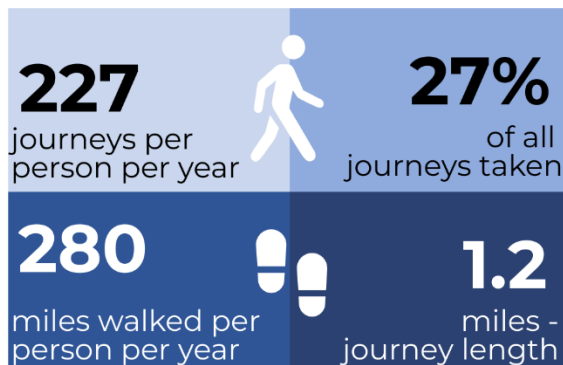
How far people travel



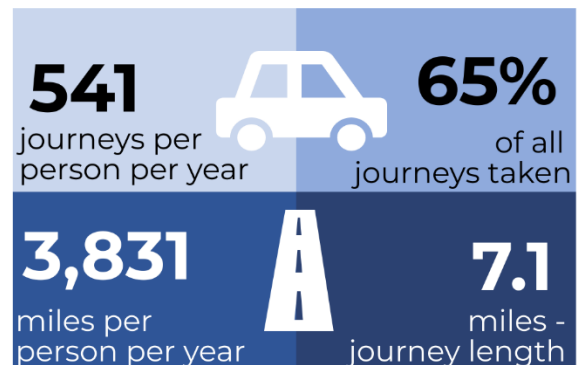
Distance travelled: % by mode and average



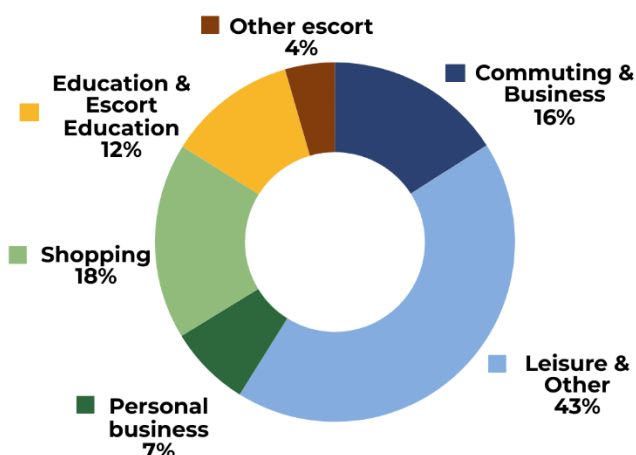
Key walking facts



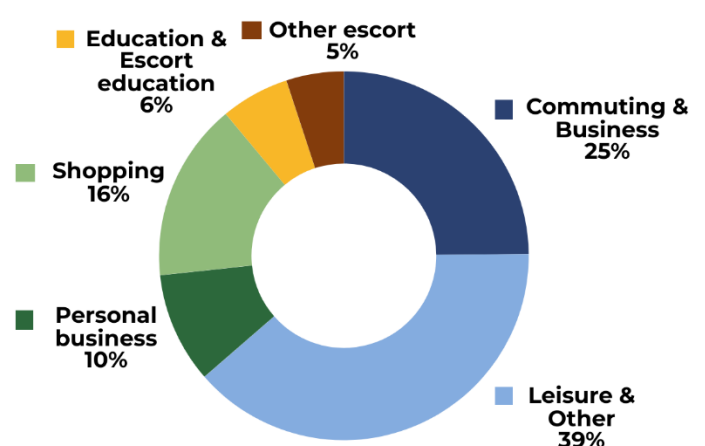
Key car facts



Journeys: % by purpose



Distance travelled: % by purpose



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About this publication

TSNI Headline Report 2020

This is the first release of 2020 Travel Survey for Northern Ireland (TSNI) results. It contains key information on journeys taken by Northern Ireland residents by mode of travel and purpose of journey. For more detailed information about the TSNI, including details about the publication of future 2020 reports, please see the [User Information](#) section (page 14) and the [Definitions](#) section (page 22).

How the COVID-19 pandemic has affected 2020 data collection and reporting

This report covers the January to December 2020 time period and, as such, includes data collected prior to the COVID-19 pandemic and data collected during the pandemic. The key effects this has had on reporting the data are highlighted below along with some of the changes made to the 2020 report as a result.

Survey methodology changes mean results are not directly comparable with previous years

There were a number of significant changes to the survey methodology in 2020 in response to the pandemic to ensure the data could continue to be collected safely. More details of the changes are given in [Changes to 2020 data collection methodology](#) (page 17) in [User Information](#). Therefore, 2020 results are not directly comparable to those of previous years and caution should be taken in reaching any conclusions if making these comparisons. More information about this is given in [Appendix C](#) (page 24).

Change from previous reports:

The commentary within the report focusses on 2020 data without making comparisons to previous years. Each chart highlights that the survey methodology changed in 2020.

Weighting the data

The achieved sample in the first quarter of the year (pre-pandemic) was nearly the same as that for the second, third and fourth quarters combined (during the pandemic). The same number of households were selected each month but the response rate dropped during the pandemic. Therefore, to ensure an even spread over the whole year, the data were weighted by quarter. Further details on the

investigations into weighting the data are in the [Impact of changes on reporting 2020 data](#) section of the User Information (page 18).

Change from previous reports:

This is the first time since the survey began that the data have been weighted.

Reporting 2020 as a single year

It was decided that due to the methodology changes and because 2020 is an exceptional year, it would not be appropriate to combine 2020 data with previous years. This will limit the analysis that can be done as the sample size is reduced by reporting only one year instead of the usual three years combined.

Change from previous reports:

Single year charts (2017 to 2020) have been added as 2020 is being reported as a single year. Charts with three years combined data for previous years (2015-2017 to 2020) have been retained to match the reporting in previous publications.

Lower response rate and reduction in achieved sample

The response rate for the TSNI reduced from 59% in 2019 to 25% in 2020. The lower response rate and change to reporting 2020 as a single year have led to a reduction in the achieved sample compared to previous years and will limit the analysis that can be done.

Change from previous reports:

Section 5 Journeys to and from school has been removed from the 2020 report as the sample size is too small to provide robust analysis.

Reporting 95% confidence intervals

With the reduction in the achieved sample due to the lower response rate and reporting a single year of data, the precision of survey estimates is reduced.

Change from previous reports:

To assist with gauging the level of uncertainty in the data, 95% confidence intervals have been added to most of the charts.

What is a confidence interval?

The error bars (|—|) and shaded areas in most of the charts in this report show 95% confidence intervals. A 95% confidence interval shows the range around a central estimate that we are 95% confident* contains the true value of the population.

For example, in 2020 each person travelled, on average, 4,550 miles with a 95% confidence interval of +/- 352 miles. This means we can be 95% certain* that the true figure for the Northern Ireland population (if we surveyed everyone and not just a sample) falls between 4,198 and 4,902 miles i.e. the values indicated by the shaded area around 2020 in Figure 1.1 and Figure 1.3 (page 3).

* If 100 samples were chosen from the population giving 100 confidence intervals, we would expect 95 of these confidence intervals would contain the true population value.

Accessibility

If this document is not in a format that meets your needs, please contact us to discuss your requirements.

Section 1: Overall results (all travel modes)

Trends in distance and journeys

In 2020, each person travelled, on average, 4,550 miles (approximately 12.5 miles per day).

On average, 826 journeys were made per person in 2020 (just over 2 journeys per day). In the same period, the average journey length was 5.5 miles.

Figure 1.1: Distance 2008-2010 to 2020 (all modes)

Average miles travelled per person per year

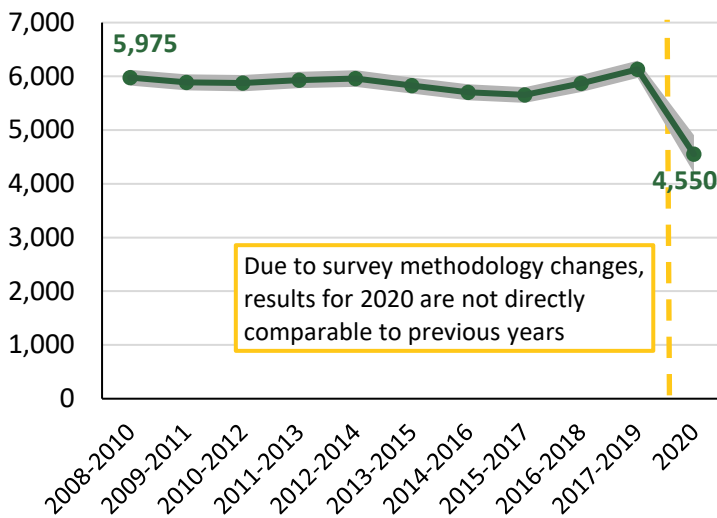


Figure 1.2: Journeys 2008-2010 to 2020 (all modes)

Average journeys per person per year

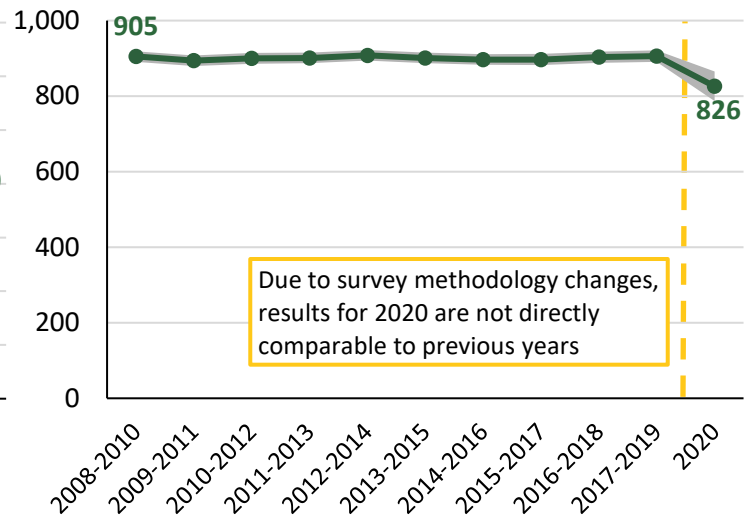


Figure 1.3: Distance 2010 to 2020 (all modes)

Average miles travelled per person per year

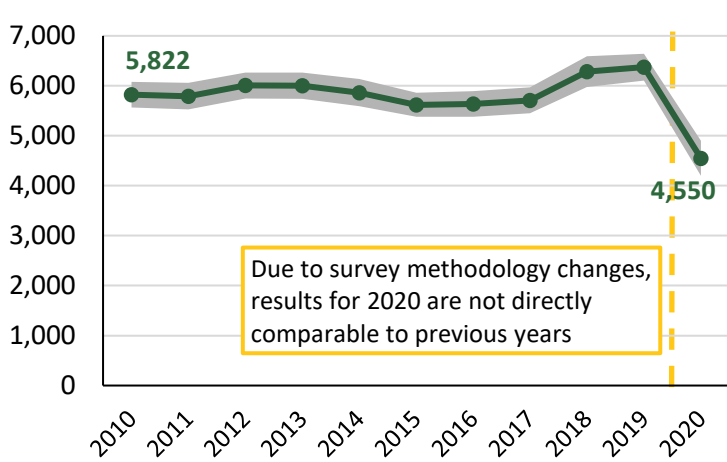
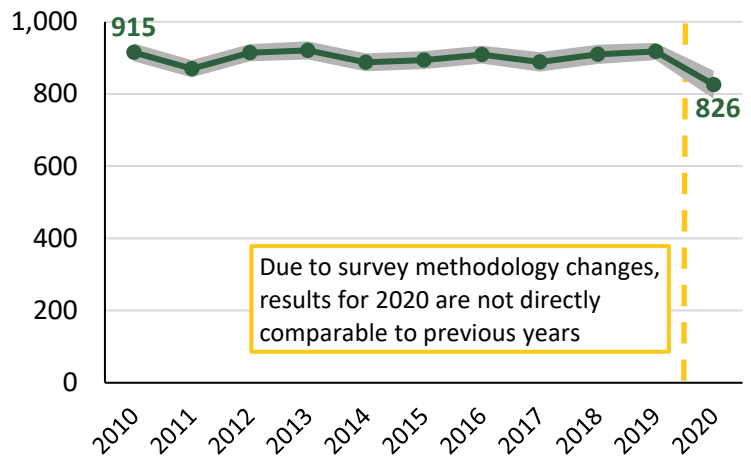


Figure 1.4: Journeys 2010 to 2020 (all modes)

Average journeys per person per year



Note: the shaded area in each chart shows 95% confidence intervals (see [What is a Confidence Interval?](#) on page 2)

Further reading

For further information and breakdowns on the statistics and charts in this section, please refer to the following tables in the accompanying spreadsheet:

- Table 1: Average distance travelled per person per year by travel mode
- Table 2: Average number of journeys per person per year and average journey length by main mode

Section 2: Mode of travel used for journeys

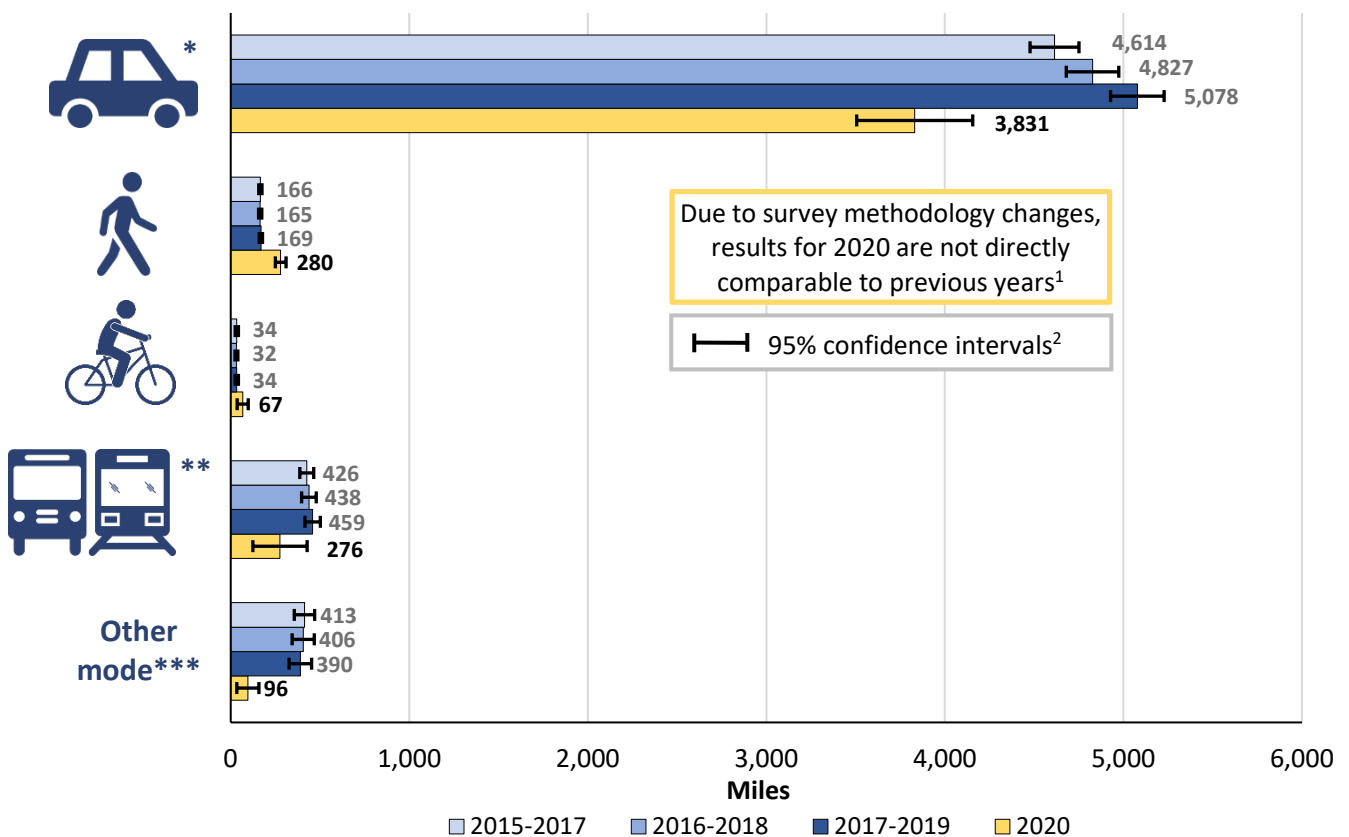
Distance travelled by mode

During 2020, more than four fifths (84%) of the total distance travelled was by car (as a driver or passenger). On average, 3,831 miles were travelled per person by car during this period.

Walking accounted for 6% of the total distance travelled. On average, 280 miles were walked per person in 2020.

6% of the total distance travelled was on public transport (Ulsterbus, Metro, Other Bus, Northern Ireland Railways and Black Taxi). An average of 276 miles per person was travelled on public transport in 2020.

Figure 2.1: Average distance travelled per person per year by mode: 2015-2017 to 2020¹



¹ The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 results are not directly comparable to those of previous years. See [About this publication](#) section (page 1) for details.

² — show 95% confidence intervals around the central estimate (see [What is a confidence interval?](#) on page 2).

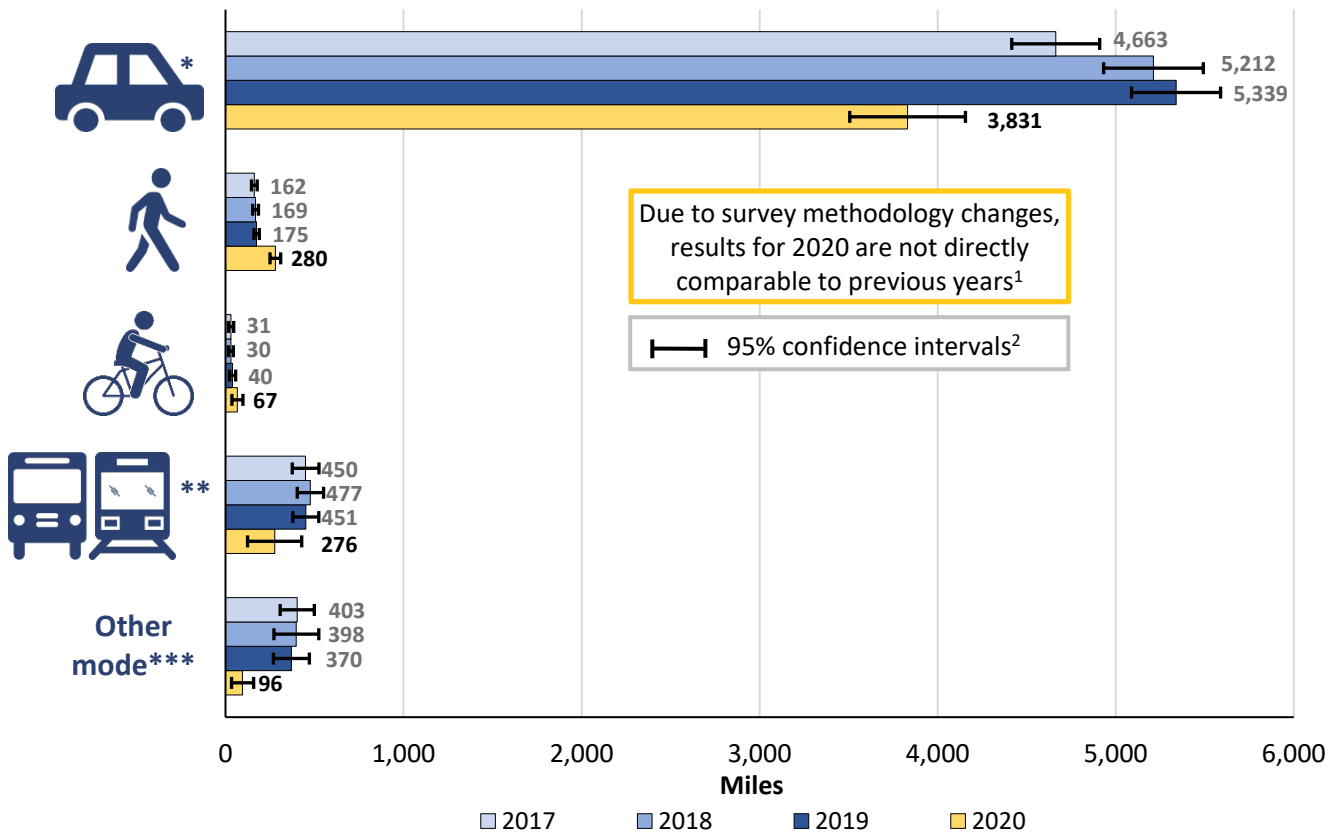
* Car includes 'Car driver', 'Car passenger' and 'Car undefined'

** Public Transport includes 'Metro and Ulsterbus', 'Other bus', 'NI Railways' and 'Black taxi'

*** Other mode includes 'Motorcycle', 'Other private', 'Taxi', 'Other public' and 'Undefined mode'

See Travel Survey for Northern Ireland In-depth Report 2017-2019 for definitions of individual travel modes.

Figure 2.2: Average distance travelled per person per year by mode: 2017 to 2020¹



¹ The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 results are not directly comparable to those of previous years. See [About this publication](#) section (page 1) for details.

² — show 95% confidence intervals around the central estimate (see [What is a confidence interval?](#) on page 2).

* Car includes 'Car driver', 'Car passenger' and 'Car undefined'

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*** Other mode includes 'Motorcycle', 'Other private', 'Taxi', 'Other public' and 'Undefined mode'

See Travel Survey for Northern Ireland In-depth Report 2017-2019 for definitions of individual travel modes.

Average number of journeys by main mode

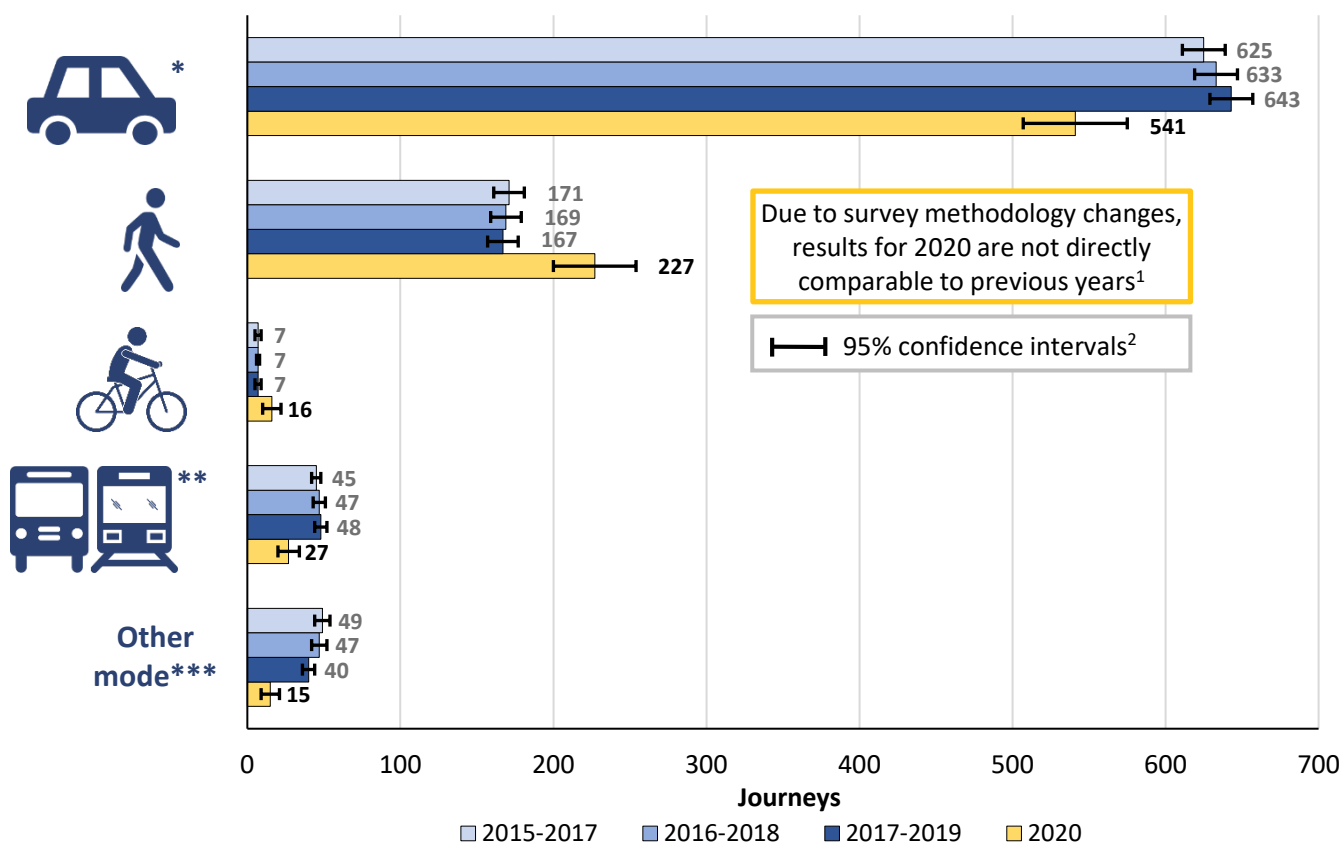
On average, 541 car journeys were taken per person in 2020. This equates to just under two thirds (65%) of all journeys made.

There were 227 walking journeys per person in 2020, which represents over one quarter (27%) of all journeys made.

There was an average of 16 cycling journeys per person in 2020, 2% of all journeys made.

In 2020, 27 public transport journeys were made per person. This equates to 3% of all journeys made.

Figure 2.3: Average number of journeys per person per year by main mode: 2015-2017 to 2020¹



¹ The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 results are not directly comparable to those of previous years. See [About this publication](#) section (page 1) for details.

² — show 95% confidence intervals around the central estimate (see [What is a confidence interval?](#) on page 2).

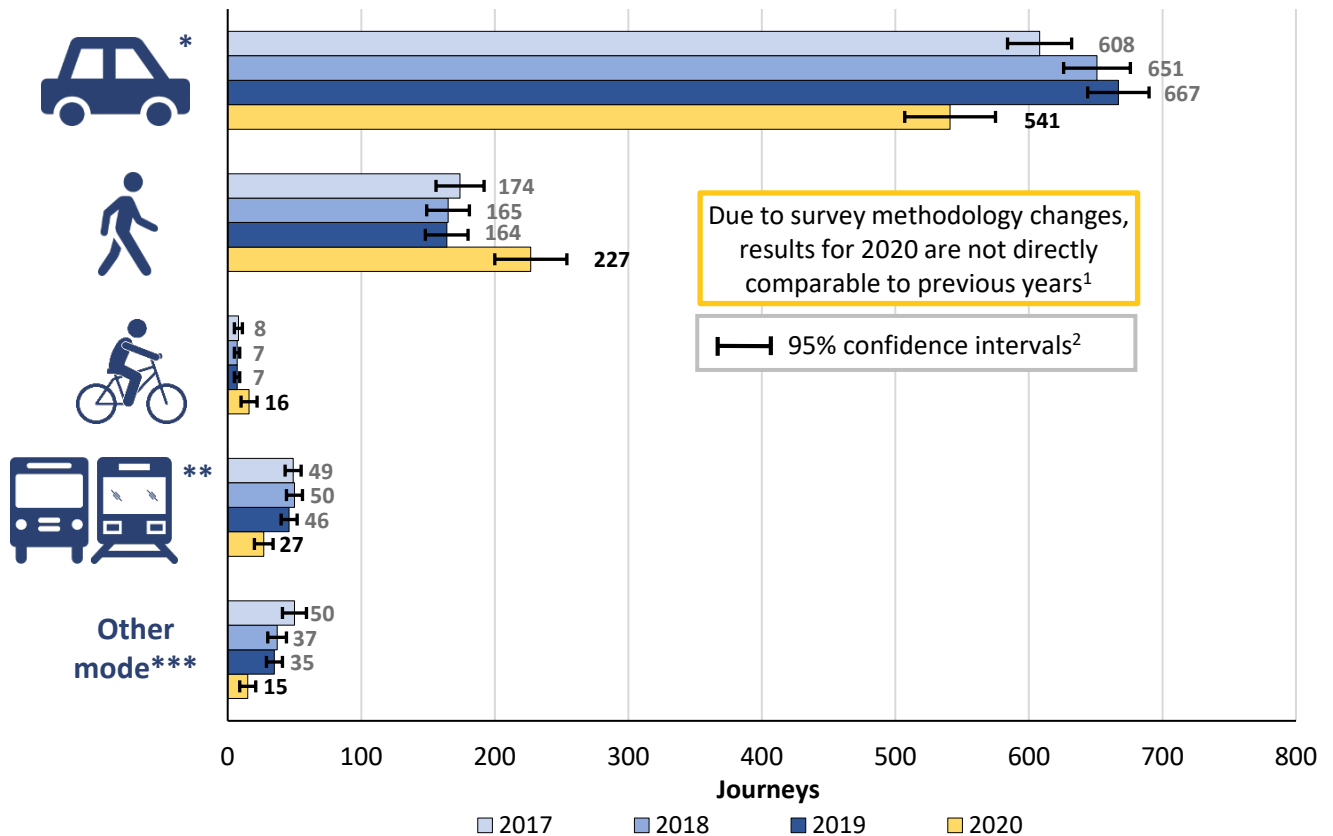
*Car includes 'Car driver', 'Car passenger' and 'Car undefined'

** Public Transport includes 'Metro and Ulsterbus', 'Other bus', 'NI Railways' and 'Black taxi'

*** Other mode includes 'Motorcycle', 'Other private', 'Taxi', 'Other public' and 'Undefined mode'

See Travel Survey for Northern Ireland In-depth Report 2017-2019 for definitions of individual travel modes

Figure 2.4: Average number of journeys per person per year by main mode: 2017 to 2020¹



¹ The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 results are not directly comparable to those of previous years. See [About this publication](#) section (page 1) for details.

² — show 95% confidence intervals around the central estimate (see [What is a confidence interval?](#) on page 2).

*Car includes 'Car driver', 'Car passenger' and 'Car undefined'

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See Travel Survey for Northern Ireland In-depth Report 2017-2019 for definitions of individual travel modes

Further reading

For further information and breakdowns on the statistics and charts in this section, please refer to the following tables in the accompanying spreadsheet:

- Table 1: Average distance travelled per person per year by travel mode
- Table 2: Average number of journeys per person per year and average journey length by main mode

Section 3: Purpose of journeys

Distance travelled by purpose

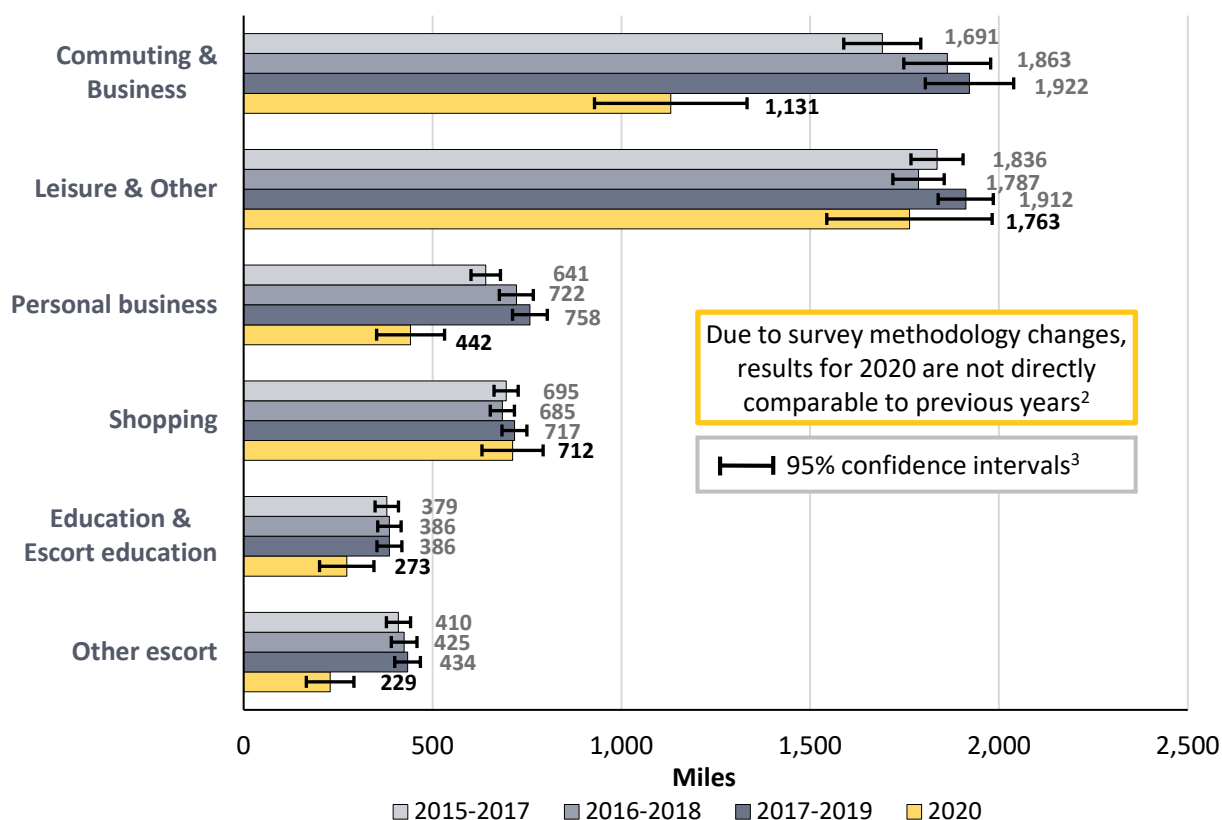
Just under two fifths (39%) of the total distance travelled was for leisure and other¹ purposes in 2020, with an average of 1,763 miles travelled per person for these purposes.

One quarter (25%) of the total distance travelled in 2020 was for commuting and business. The average distance travelled for these purposes was 1,131 miles per person during this period.

In 2020, 16% of the total distance travelled was for shopping. On average, 712 miles per person were travelled for this purpose.

Journeys to services, such as the bank, doctor or library (classified as “personal business” journeys) made up one-tenth (10%) of the total distance travelled. An average of 442 miles per person was travelled for personal business purposes in 2020.

Figure 3.1: Average distance travelled per person per year by purpose¹: 2015-2017 to 2020²

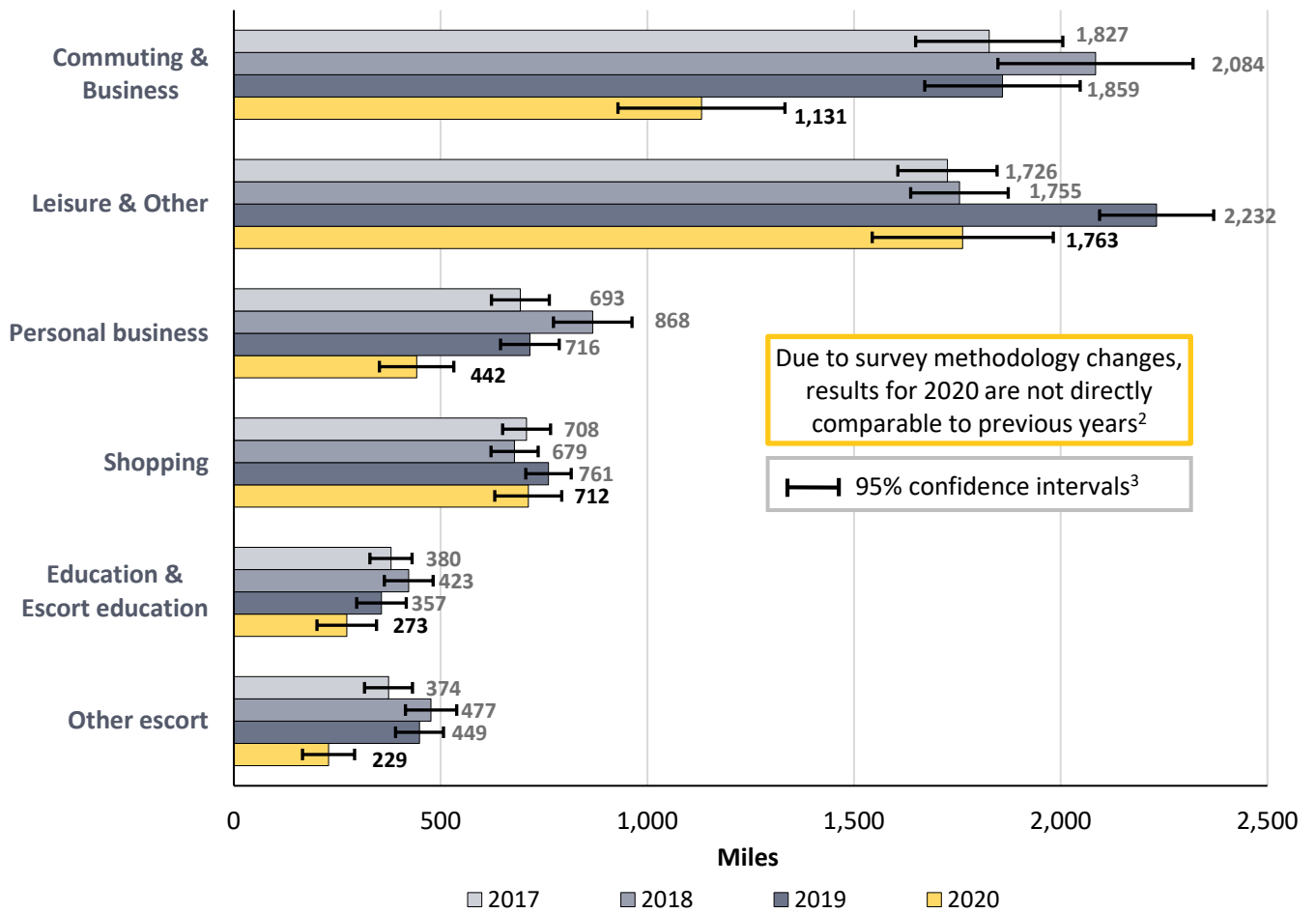


¹ See Travel Survey for Northern Ireland In-depth Report 2017-2019 for definitions of journey purpose. Leisure and Other category includes ‘Visit friends at private home’, ‘Visit friends elsewhere’, ‘Entertainment/public social activities’, ‘Sport participate’, ‘Holiday base’, ‘Day trip’, ‘Other including just walk’ and ‘Undefined purpose’.

² The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 results are not directly comparable to those of previous years. See [About this publication](#) section (page 1) for details.

³ — show 95% confidence intervals around the central estimate (see [What is a confidence interval?](#) on page 2).

Figure 3.2: Average distance travelled per person per year by purpose¹: 2017 to 2020²



¹ See Travel Survey for Northern Ireland In-depth Report 2017-2019 for definitions of journey purpose. Leisure and Other category includes 'Visit friends at private home', 'Visit friends elsewhere', 'Entertainment/public social activities', 'Sport participate', 'Holiday base', 'Day trip', 'Other including just walk' and 'Undefined purpose'.

² The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 results are not directly comparable to those of previous years. See [About this publication](#) section (page 1) for details.

³ — show 95% confidence intervals around the central estimate (see [What is a confidence interval?](#) on page 2).

Average number of journeys by purpose

There were 355 leisure and other¹ journeys taken per person in 2020. This represents over two-fifths (43%) of all journeys made.

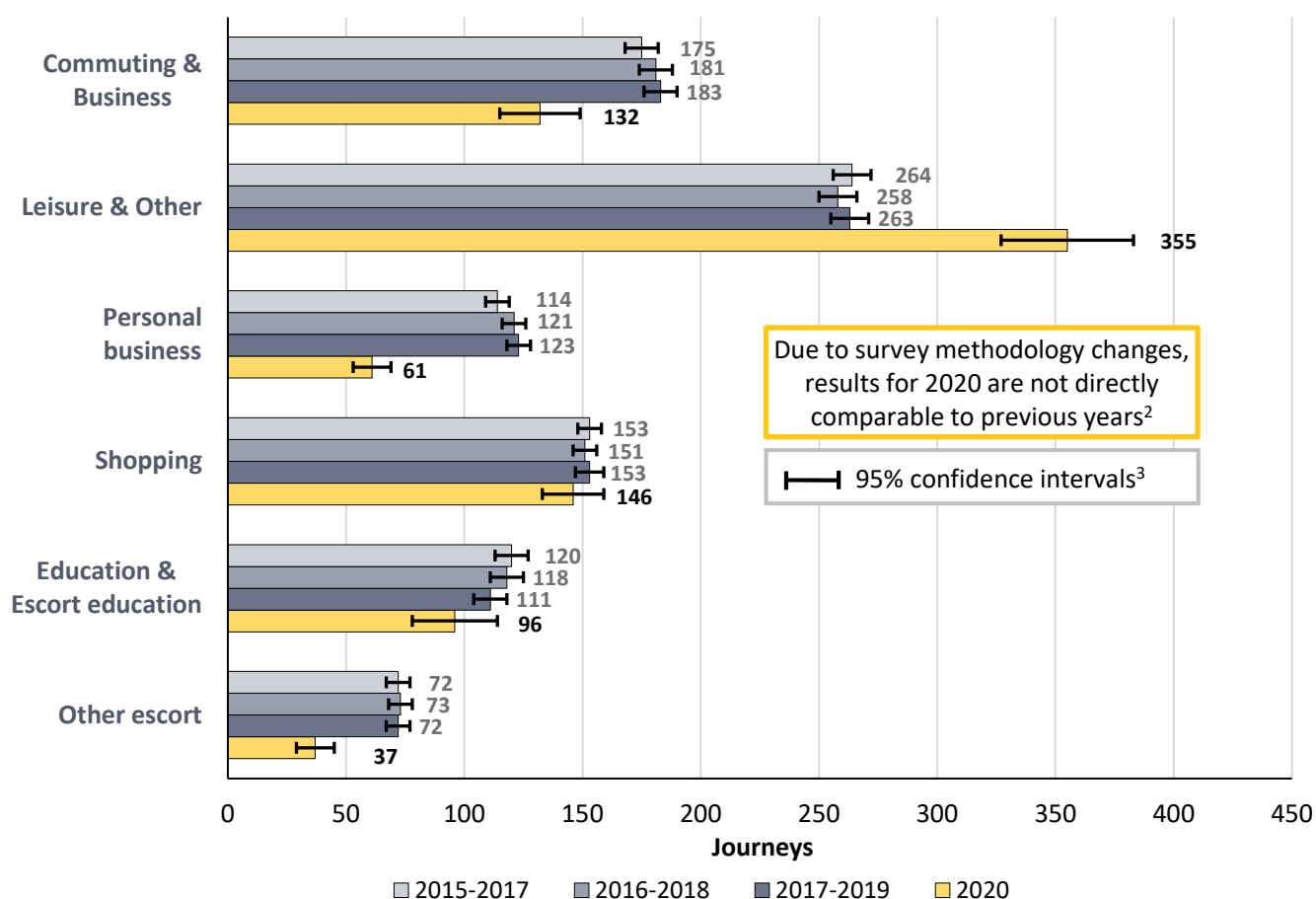
Each person made, on average, 146 shopping journeys during 2020, which represents almost one-fifth (18%) of all journeys made.

On average, 132 commuting and business journeys were taken per person in 2020. This equates to 16% of all journeys made.

There were 96 education and escort education journeys made per person in 2020 (e.g. a schoolchild going to school, a student going to college/university, a parent taking a child to school). This accounted for 12% of all journeys made.

In 2020, 61 personal business journeys were taken per person, 7% of all journeys made.

Figure 3.3: Average number of journeys per person per year by purpose¹: 2015-2017 to 2020²

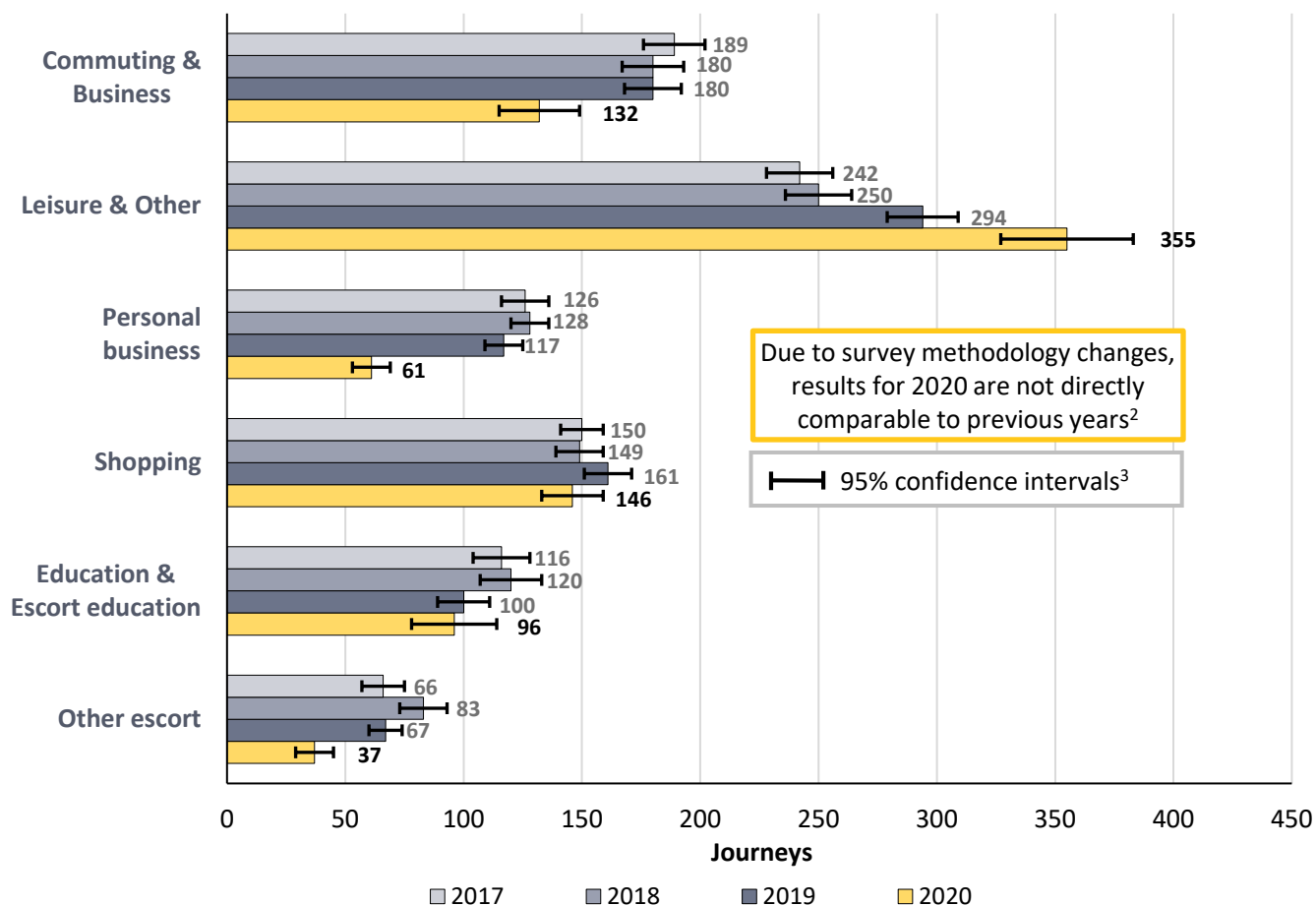


¹ See Travel Survey for Northern Ireland In-depth Report 2017-2019 for definitions of journey purpose. Leisure and Other category includes 'Visit friends at private home', 'Visit friends elsewhere', 'Entertainment/public social activities', 'Sport participate', 'Holiday base', 'Day trip', 'Other including just walk' and 'Undefined purpose'.

² The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 results are not directly comparable to those of previous years. See [About this publication](#) section (page 1) for details.

³ — show 95% confidence intervals around the central estimate (see [What is a confidence interval?](#) on page 2).

Figure 3.4: Average number of journeys per person per year by purpose¹: 2017 to 2020²



¹ See Travel Survey for Northern Ireland In-depth Report 2017-2019 for definitions of journey purpose. Leisure and Other category includes 'Visit friends at private home', 'Visit friends elsewhere', 'Entertainment/public social activities', 'Sport participate', 'Holiday base', 'Day trip', 'Other including just walk' and 'Undefined purpose'.

² The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 results are not directly comparable to those of previous years. See [About this publication](#) section (page 1) for details.

³ — show 95% confidence intervals around the central estimate (see [What is a confidence interval?](#) on page 2).

Further reading

For further information and breakdowns on the statistics and charts in this section, please refer to the following table in the accompanying spreadsheet:

- Table 3: Travel per person per year by journey purpose

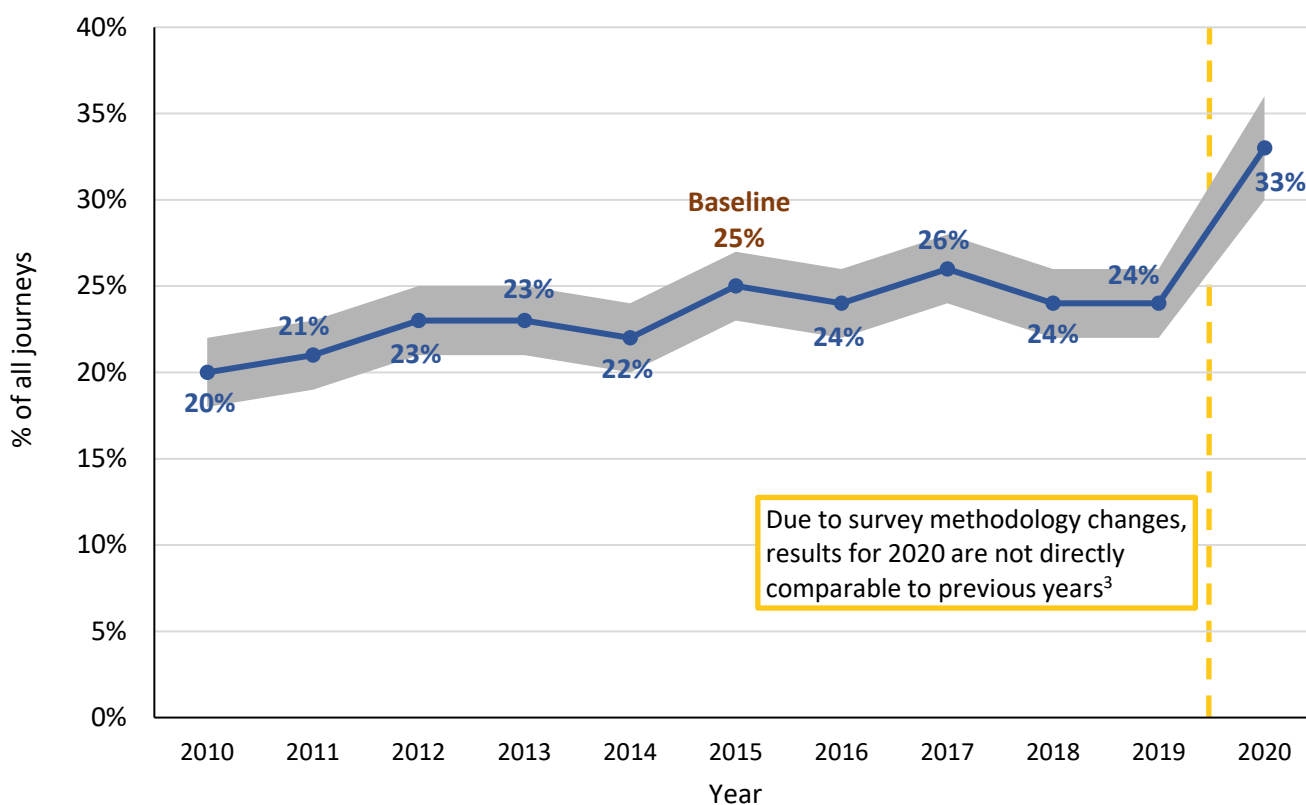
Section 4: Journeys made by walking, cycling or public transport

Trends in walking, cycling, public transport

Indicator 25 of the previous draft Programme for Government (PfG) framework, which ran until 2021, was the proportion of all journeys which are made by walking, cycling or public transport. This was monitored using Travel Survey for Northern Ireland data for single years and the last update provided was for 2019. The baseline year was 2015. For comparison purposes, data have been included for the last 10 years in Figures 4.1 and 4.2. This section will be kept under review.

In 2020, one-third (33%) of all journeys were taken by walking, cycling or public transport.

Figure 4.1: Proportion of all journeys where the main mode of travel¹ is walking, cycling or public transport²: 2010 to 2020³



¹ Main mode is the form of transport used for the greatest length of the journey. For example, if the journey had 2 stages, walking 1 mile to the train station and then taking a 10 mile train journey, the train would be the main mode and therefore the journey is assigned to the "public transport" category.

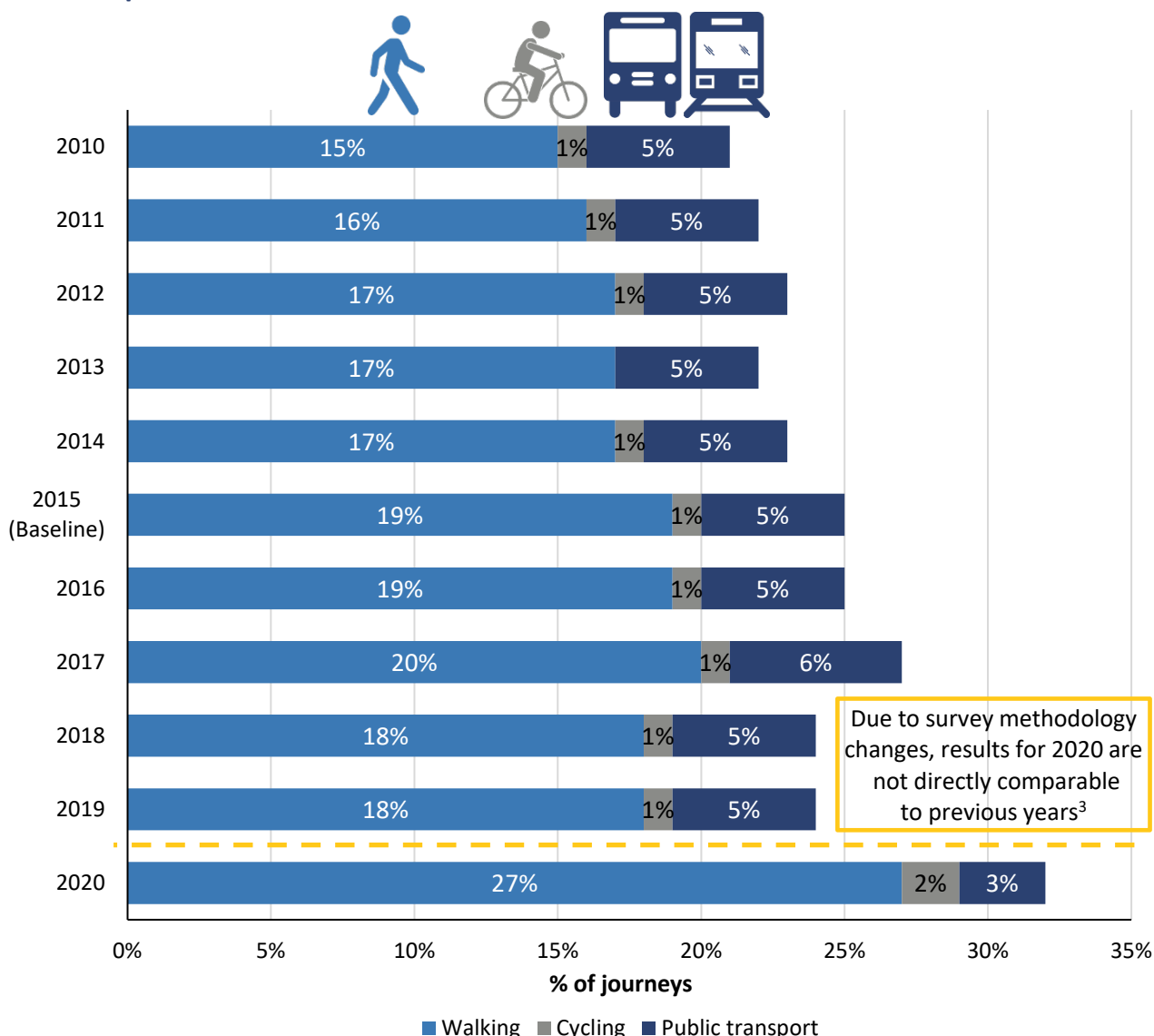
² Public Transport includes 'Metro and Ulsterbus', 'Other bus', 'NI Railways' and 'Black taxi'

³ The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 results are not directly comparable to those of previous years. See [About this publication](#) section (page 1) for details.

Note: the shaded area in the chart shows 95% confidence intervals (see [What is a Confidence Interval?](#) on page 2).

Looking at the individual travel modes separately, in 2020 the proportion of all journeys made by walking was 27%, by cycling 2% and by public transport 3%.

Figure 4.2: Proportion of all journeys where the main mode of travel¹ is walking, cycling or public transport²: 2010 to 2020³



¹ Main mode is the form of transport used for the greatest length of the journey. For example, if the journey had 2 stages, walking 1 mile to the train station and then taking a 10 mile train journey, the train would be the main mode and therefore the journey is assigned to the "public transport" category.

² Public Transport includes 'Metro and Ulsterbus', 'Other bus', 'NI Railways' and 'Black taxi'

³ The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 results are not directly comparable to those of previous years. See [About this publication](#) section (page 1) for details.

Further reading

For further information and breakdowns on the statistics and charts in this section, please refer to the following figure and table in the accompanying spreadsheet:

- Figure 1 and Table 4: Proportion of all journeys taken where the main mode of travel is walking cycling or public transport

Appendix A: User Information

User engagement

In 2018, ASRB conducted a series of [TSNI user engagement meetings with key users](#). Following on from this, in 2019 ASRB conducted a review of the content and format of the current TSNI reports in order to develop a more concise, accessible and relevant set of reports whilst ensuring that they continue to meet our users' needs.

As part of this, an eight week [user consultation](#) was carried out, closing on 2 July 2019. An online survey was used to collect responses. 93 full and partial responses were received. The [results of this survey](#) were published in September 2019, alongside a [Statement of User Needs](#) indicating future work that will be carried out on TSNI outputs.

Redesign of TSNI reports

Following on from the user consultation, we developed and implemented a new format for the 2016-2018 edition of the In-depth Report. The new format was then applied to the 2017-2019 edition of the Headline Report. The reports have been updated to reflect current statistical and data visualisation methods to make them more user-friendly and accessible, while retaining all information previously reported.

To make the results more digestible, large tables and charts have been reduced in size:

- Travel modes were grouped from 14 categories into 5 commonly used modes: Walk, Bicycle, Car, Public transport, Other.
- Journey purposes were grouped from 15 categories into 6 commonly used purposes: Commuting & Business, Leisure & Other, Personal business, Shopping, Education & Escort Education, Other escort.

All the tables from previous Headline Reports are available in the spreadsheet accompanying this report, including analysis by the 14 separate travel modes and the 15 separate journey purposes. For ease of comparison, the table numbers in the spreadsheet match the table numbers in Headline Reports up to 2016-2018.

Symbols and Conventions

Rounding of figures

Where figures have been rounded to the nearest final digit, there may be an apparent slight discrepancy between the sum of the constituent items and the total shown.

Weeks in a year

It is assumed in this report that there are 52.14 weeks in the year.

Conversion factors for miles and kilometres

The following conversion factors may be of use:

- 1 Mile = 1.609 Kilometres
- 1 Kilometre = 0.6214 Miles

Statistical significance – change in 2020

There were a number of changes to the survey methodology in 2020 in response to the COVID-19 pandemic. See [Changes to 2020 data collection methodology](#) section (page 17) for more details. Therefore, 2020 results are not directly comparable to those of previous years and caution should be taken in reaching any conclusions if making these comparisons. In previous reports, statistical significance tests were carried out between the latest results and previous years to see if there had been an increase, a decrease or no change. The commentary within this report focusses on 2020 data without making comparisons to previous years.

Grouped travel modes and journey purposes

Travel modes and Journey purposes have been grouped as follows:

Category in current report	Categories in previous reports
Walk	Walk
Bicycle	Bicycle
Car	Car driver, Car passenger, Car undefined
Public transport	Metro and Ulsterbus, Other bus, NI Railways, Black Taxi
Other	Motorcycle, Other private, Taxi, Other public, Undefined mode
Commuting & Business	Commuting, Business
Leisure & Other	Visit friends at private home, Visit friends elsewhere, Entertainment/public social activities, Sport participate, Holiday base, Day trip, Other including just walk, Undefined purpose
Personal business	Personal business
Shopping	Shopping
Education & Escort education	Education, Escort Education
Other escort	Other escort

Travel included in the survey

Only travel within Northern Ireland (and inshore islands) is included.

Respondents

Information on journeys is recorded in the travel diary completed by all persons in the household taking part in the survey (adults and children).

Background to the Travel Survey for Northern Ireland (TSNI)

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). It began in Northern Ireland as a continuous survey in 1999 (after a pilot survey). It is conducted over a calendar year (from January to December). The first results were published in 2003 for the period 1999-2001. This latest report covers the 2020 time period.

Data for single year/three years combined

Three years combined

As the sample size is relatively small, 3 years of data would normally be combined to ensure the analysis carried out is robust. This ensures that a wide range of analysis can be carried out.

Single year

For certain stable groups of the sample where it is established that there is a large enough sample size, it is possible to report limited information for shorter (one year) periods of time.

Reporting 2020 as a single year

It was decided that due to the methodology changes and because 2020 is an exceptional year, it would not be appropriate to combine 2020 data with previous years. This will limit the analysis that can be done as the sample size is reduced by reporting only one year instead of the usual three years combined.

National Statistics status

National Statistics status means that our statistics meet the highest standards of trustworthiness, quality and public value, and it is our responsibility to maintain compliance with these standards.

The Travel Survey for Northern Ireland (TSNI) statistics were designated as National Statistics in March 2011 following a [full assessment](#) against the [Code of Practice for Statistics](#).

Since the assessment by the Office for Statistics Regulation, we have continued to comply with the [Code of Practice for Statistics](#), and have made the following improvements:

- To better communicate uncertainty and change, 95% confidence intervals were added to the charts in the 2020 report.
- Following the TSNI user consultation in 2019 and the production and publication of the new format 2016-2018 TSNI In-depth Report, the 2017-2019 edition of the report was redesigned and reformatted to make the report more accessible and user friendly, while retaining all information previously reported. Further details are available in the [Redesign of TSNI reports](#) section (page 14).
- Added a section on journeys to and from school, from the 2010-2012 edition onwards, following a user request for these data to assist with performance monitoring. This section has been further revised for the 2017-2019 edition to bring travel mode groups in line with the rest of the report. Note that this section was removed in the 2020 edition of the report as the sample size is too small to provide robust analysis.
- Added a section on journeys made by walking, cycling or public transport, from the 2014-2016 edition onwards, to monitor Indicator 25 of the draft Programme for Government which ran until 2021. This section will be kept under review.

- Moved from a 2 star to a 3 star rating on the Tim Berners-Lee 5-star rating of linked open data. This was achieved by making the publication tables available in ODS (Open Document Spreadsheet) format from the 2014-2016 report onwards.
- Added a summary page of infographics to summarise the key points in the report in an easily accessible format from the 2012-2014 report onwards.

Current and future developments

The TSNI Headline Report 2020 is the first publication based on the 2020 TSNI data. The headline report contains key results for 2020 and is produced and published as soon as the data have been processed and any necessary quality assurance carried out. In addition, a significant amount of extra work was required to investigate the 2020 data (see [How the COVID-19 pandemic has affected 2020 data collection and reporting](#) (page 1)). This additional work combined with the delay in receiving the TSNI 2017-2019 datasets, which delayed the publication of the 2017-2019 reports, continues to have a knock-on effect on the usual publication timetable of the TSNI reports. The previous Headline Report (2017-2019) was released in Winter 2021/22 but, in the past the Headline Reports would be issued in the Summer.

A technical report, supplementary to this report, is planned for Spring 2022. This will contain information on 2020 survey response rates and confidence ranges.

The next release of 2020 results, the TSNI In-depth Report 2020, is planned for publication in Summer 2022. The scope of the 2020 In-depth Report will be reduced compared to previous publications, as the reduction in the achieved sample will limit the analysis that can be carried out. As such, we have yet to determine the content of this report.

One of the key projects to develop the TSNI is the review of the current database structure. In its current format the TSNI has an extremely complex structure which makes it difficult to analyse. Detailed knowledge of what to include and exclude and how to interpret the output is required. Each time a new piece of analysis is run there is a time consuming checking process to ensure the data are correct. A number of alternatives are being considered and the chosen option will be implemented once it has been determined which provides the most clear-cut database structure and the most efficient way to run queries. Once in place, this will enable dissemination of the TSNI database via the University of Essex Data Archive and the Open Data Portal allowing access to researchers for secondary analysis. Recent events have caused delays to any development in this area. A date for this will be determined once resource allows the project to proceed.

Changes to 2020 data collection methodology

To maintain their interviewers' and the public's safety, face to face interviewing was suspended by Central Survey Unit (CSU) for all their surveys in March 2020 due to the COVID-19 pandemic. Following intensive work by CSU, the TSNI became a telephone survey which commenced in April 2020. The same number of households were selected every month as for the face to face survey and advance letters and reminder letters were sent out to the selected households. The household was then asked to contact CSU if they were interested in taking part in the survey and an interviewer phoned them at a suitable time.

There were some further changes to the methodology such as travel diary data collection, with responsibility for completion moving from respondents to interviewers (who received journey

details over the telephone). In addition, the questionnaire was streamlined with some questions removed and changes to how some questions were asked or presented.

Impact of changes on reporting 2020 data

The pandemic and these significant changes to the survey methodology have had an impact on the reporting of the data:

Comparison with previous years

Due to the changes, the 2020 results are not directly comparable to previous years. Caution should be taken in reaching any conclusions if making these comparisons (further details are in [Appendix C](#) (page 24)). Therefore the commentary within the report focusses on 2020 data without making comparisons to previous years.

Reduction of achieved sample

The suspension of face-to-face interviewing led to a lower response rate to the survey and a reduced achieved sample in 2020. The response rate fell from 59% in 2019 to 25% in 2020. In addition, it was decided that due to the significant survey methodology changes and because 2020 is an exceptional year, it would not be appropriate to combine 2020 data with previous years. The sample size will therefore be further reduced by reporting only one year instead of the usual three years combined. This will limit the analysis that can be carried out in 2020 and some examples of this are given below:

- May only allow reporting at the Northern Ireland level i.e. not reporting further sub-population breakdowns. This will affect the scope of the In-depth Report.
- The sample size for certain data not collected from the full sample may be too small for robust analysis. For example, it has not been possible to update Section 5 Journeys to and from school as the sample size is too small and this has been removed from the 2020 report.

Weighting the data

Weighting by quarter

This report covers the January to December 2020 time period and, as such, includes data collected prior to the COVID-19 pandemic and data collected during the pandemic. The achieved sample in the first quarter of 2020 (pre-pandemic) was nearly the same as that for the second, third and fourth quarters combined (during the pandemic). The same number of households were selected each month but the response rate dropped during the pandemic. Therefore, to ensure an even spread over the whole year, the data were weighted by quarter. This is the first time since the survey began that the data have been weighted.

A check of previous years of data showed that there was a relatively even spread of the sample over the year and weighting by quarter made little difference to the data. Therefore, there has been no need to weight previous years by quarter.

Investigating other weighting options

Other weighting options based on demographic factors were carefully considered and investigated such as weighting by gender, age and multiple deprivation quintile. However, for the majority of the analysis of the TSNi 2020 data, it was found that these weights made no significant difference to the results. Therefore, the 2020 data have only been weighted by quarter.

Survey methodology

Information for the survey is collected using two methods: a computer interview and a paper travel diary. From January to March 2020, the interview was conducted face to face and the paper travel diary was left with the respondent for completion. From April 2020, following the suspension of face to face interviewing, the interview was conducted over the telephone. The paper diary was completed by the interviewer who received details of the respondent's journeys over the telephone.

The seven day travel diary collects information on all journeys 50 metres or more. Details collected for each journey include the purpose of the journey, the length of the journey and the method of travel. Personal information is also collected in a computer interview. This allows details such as age, sex, working status, etc. to be linked to the journey data.

In order to minimise the burden of completing the travel diary, information on short walks (i.e. under one mile in length) are only collected on day one. The data on short walks are then grossed for the full travel week so that results in this report include short walks for the full seven day period.

Sample design

In 2020, a sample of 1,920 addresses was drawn from the NISRA Address Register using a methodology that is designed to provide representative geographical coverage across Northern Ireland. The NISRA Address Register is maintained by NISRA's Census Branch and is created by merging the POINTER database with additional records, and removing duplicates and communal establishments.

All persons in the household (including children) are eligible for the survey.

415 households and 771 persons were interviewed for the TSNI over the time period 1 January to 31 December 2020.

Uses of the TSNI

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. It provides information to inform government policy, set objectives and to monitor performance in relation to transport and 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. Data from the TSNI has been used in the development of the NI Transport Model. It is also used in a variety of publications as well as the TSNI reports. This includes the annual NI Transport Statistics publication (from 2013-14), NI Road Safety Strategy to 2020 Annual Statistical Report (from 2016) and the annual 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.

Data quality assessment

A [Background Quality Report](#) has been produced and is published on the Travel Survey for Northern Ireland website.

Data are collected by the Central Survey Unit (CSU) and the sample is selected to be representative of the Northern Ireland population. Data undergo various validation checks as part of the processing. CSU is the leading social survey research organisation in Northern Ireland and is one of the main business areas of the Northern Ireland Statistics and Research Agency (NISRA), an Agency within the Department of Finance. The Unit has a long track record and a wealth of experience in the design, management and analysis of behavioural and attitude surveys in the context of a wide range of social policy issues. CSU procedures are consistent with the [Code of Practice for Statistics](#).

Note that all survey estimates are subject to a degree of error and this must be taken account of when considering results. This error will be reasonably small for the majority of Northern Ireland level results using three years combined data but care should be taken when looking at results based on smaller breakdowns.

Guidance on using the data

Data at Northern Ireland level for three years combined are robust. When figures are broken down into sub-regional level, the sample size is reduced. Consequently, data analysis at sub-regional level is limited. For similar reasons, data analysis for single years is limited.

Sampling errors

Data are from a sample survey i.e. not asked of the whole population of Northern Ireland. Therefore when looking at the figures, the confidence intervals/ranges associated with the figures should be noted.

What are Confidence intervals/ranges?

- As estimates made from a sample survey depend upon 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. Further details are given in [What is a Confidence Interval?](#) (page 2).
- Where charts contain 95% confidence intervals, these are indicated by shaded areas or error bars (—|—).
- 95% confidence interval tables will be available in the technical report published in the Spring on the [Travel Survey for Northern Ireland statistics webpage](#).

Average distance travelled

For average distance travelled by mode tables in this report, [mode of travel](#) is used (see page 22 of Definitions). This means the actual mode of travel used during each stage of the journey is captured by the data analysis.

Note that there was a change to the travel diary in 2018, adding in a tick box to indicate if the journey crossed the border. Only the portion of the journey distance travelled within Northern Ireland up to the border is recorded (consistent with how this information has always been reported). When comparing single years 2017 and 2018, a significant increase in the average distance travelled was noted: from 5,708 miles in 2017 to 6,286 miles in 2018. This may be connected to the travel diary change. Average distance travelled has remained at a similar level comparing 2018 (6,286 miles) to 2019 (6,374 miles) and no further increase has been observed. Note that there is no real difference between 2017, 2018 and 2019 comparing proportion of total distance travelled by each travel mode. There has been some investigation of the 2018 and 2019 cross-border journeys but no wide-scale issues were noted. We will continue to monitor this and see if the trend of higher average distance travelled continues in subsequent years.

2020 update: We have been unable to explore this further in 2020 as results are not directly comparable with previous years due to the impact of the pandemic and changes to survey methodology.

Average number of journeys

For the average number of journeys by mode tables in this report, [main mode of travel](#) is used (see page 22 of Definitions). This is because whole journeys are being tabulated not stages or parts of a journey.

Please note that the majority of journeys are only one stage which means that both the mode and main mode of travel would be the same.

Appendix B: Definitions

For a full set of definitions (including types of modes of travel, types of journey purpose) see [Travel Survey for Northern Ireland In-depth Report 2017-2019](#).

Geographical coverage

Only travel within Northern Ireland (and inshore islands) is included. This means for a journey to Dublin for example, only the portion of the journey to the border is included.

Journeys

A journey is defined as a one-way course of travel having a single main purpose. Outward and return portions of a journey are treated as two separate journeys. A journey cannot have two separate purposes. A brief call is a relatively incidental stop for a subsidiary purpose e.g. stopping for petrol. If only a brief call is made the journey is not broken up into smaller journeys.

Stages

A journey 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.

Distance travelled

The length of any journey stage is the distance actually covered by the traveller and not the distance 'as the crow flies'.

Mode of travel/Main mode of travel

Mode is the form of transport used for a stage of a journey. The main mode is the form of transport used for the greatest length of the journey.

Example of mode of travel

If a journey consisted of 2 stages, a 1 mile walk to the train station followed by a 10 mile train journey, 1 mile would be assigned to the "walk" mode of travel and 10 miles to the "public transport" mode of travel.

Example of main mode of travel

Looking at the same 2 stage journey as above, walking 1 mile to the train station and then taking a 10 mile train journey, the train would be the main mode and therefore the journey is assigned to the "public transport" category.

Journey purpose

The purpose of a journey is governed by what the person did at the end of the journey. However, for journeys 'home' the purpose is governed by the start of the journey. This means for example the purpose of a journey from the shops to home is 'shopping' when analysing the data.

Journeys excluded

The survey is only concerned with travel involving a person moving from one place to another in order to reach that destination. Travel involving the movement of freight and for people paid to walk (e.g. policemen, postmen, etc.) is excluded.

Travel in the course of work for certain occupational groups is therefore excluded (e.g. bus drivers, conductors, taxi drivers, crew of public transport vehicles, crew of public vehicles such as fire engines or ambulances); travel in industrial or agricultural equipment (cranes, bulldozers, tractors, etc.); travel in specially equipped vehicles used in the course of a person's work (police patrol cars, AA/RAC repair vehicles, Post Office vans, etc.).

Leisure travel which is not competitive to public transport is also excluded (e.g. a boat trip for pleasure). Children's play is excluded.

Generally travel off the public highway (i.e. on private land) is excluded. An exception to this is cross-country walking, running, hiking or mountain climbing which is included even if on private land. Travel in public parks and on greenways is included.

Appendix C: Notes on Travel Survey for Northern Ireland 2020

NISRA suspended all face-to-face household interviews in the middle of March 2020 due to the Coronavirus (COVID-19) pandemic. Following intensive work by Central Survey Unit, the Travel Survey for Northern Ireland (TSNI) became a telephone survey which commenced in April 2020. For the remainder of the reporting period, all interviews carried out on the TSNI were conducted by telephone.

There are a number of factors which users should take into consideration when interpreting the 2020 results and care should be taken when comparing these to previously published findings from the survey.

1. While survey methodology changed, the impact of the Coronavirus (COVID-19) pandemic and the resultant introduction of new public health regulations, guidance and advice may have also fundamentally changed peoples' behaviour and attitudes. It is difficult to separate out change caused by the methodological adjustments and actual behavioural change at this point in time;
2. The change in data collection mode from face-to-face to telephone may have altered how people responded to the survey;
3. The change in data collection mode also necessitated some streamlining of the questionnaire and changes to how some questions were asked or presented as well as the response categories associated with them. This may also have implications for how people responded to the survey;
4. The achieved response rate on the survey in 2020 was 25% and this is a lower response compared to the achieved response rate of 59% in 2019. This has reduced the number of cases at the household and individual levels. With the reduction in sample size due to the lower response rate and reporting a single year of data, the precision of survey estimates is reduced. To assist with gauging the level of uncertainty in the data, 95% confidence intervals have been added to most of the charts.

Any changes within the 2020 data compared to previous years have to be considered in the context of all of the above.

Care should be taken in reaching any conclusions based on 2020 data and comparisons to previous years. It would be advisable to look at changes in behaviour or attitudes contained in the 2020 results over the next couple of years, particularly when data collection on the survey returns to face-to-face mode and society returns to normal, to see if they are part of a permanent changing trend.