



Travel Survey for Northern Ireland Headline Report 2021



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Key Points

Overall results

- In 2021, each person travelled, on average, 4,940 miles (approximately 13.5 miles per day), no real change from the previous year (4,550 miles per person in 2020).
- On average, 838 journeys were made per person in 2021 (just over 2 journeys per day), similar to 2020 (826 journeys per person).
- In 2021, the average journey length was 5.9 miles, an increase from the previous year (5.5 miles in 2020).

Main mode of travel

- On average, 583 car journeys were taken per person in 2021. This equates to just under seven in ten (69%) of all journeys made, similar to 2020 (65%).
- There were 199 walking journeys per person in 2021. This represents just under one quarter (24%) of all journeys made, similar to 2020 (27%).
- In 2021, 20 public transport journeys were made per person. This equates to 2% of all journeys made, no real difference from 2020 (3%).
- In 2021, 1% of all journeys were made by cycling. There was an average of 10 cycling journeys per person in 2021, no real change from 2020 (16 journeys).

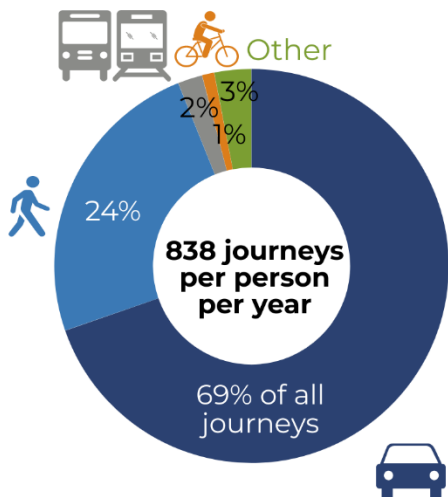
Purpose of journey

- There were 323 leisure and other journeys taken per person in 2021 (visiting friends at private home/elsewhere, entertainment/social activities, sports, holiday/day trip, other including just walk, undefined purpose). This represents just under two fifths (39%) of all journeys made, similar to 2020 (43%).
- Each person made, on average, 148 shopping journeys during 2021, which represents almost one fifth (18%) of all journeys made, the same as 2020 (18%).
- On average, 139 commuting and business journeys were taken per person in 2021. This equates to 17% of all journeys made, no real change compared to 2020 (16%).
- There were 117 education and escort education journeys made per person in 2021 (e.g. a schoolchild going to school, a student going to college/university, a parent taking a child to school). This accounted for 14% of all journeys made, no real difference from 2020 (12%).

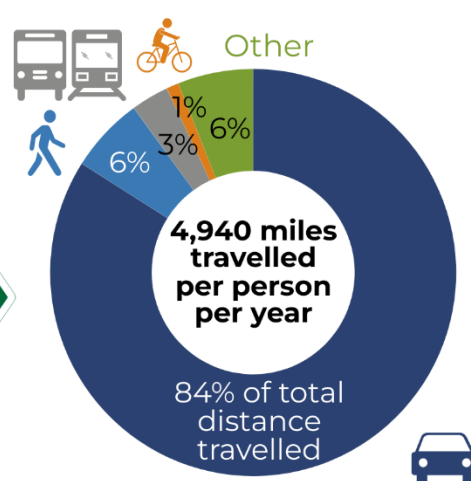
Journeys made by walking, cycling or public transport

- In 2021, over one quarter (27%) of all journeys were taken by walking, cycling or public transport, a decrease from 2020 (33%).

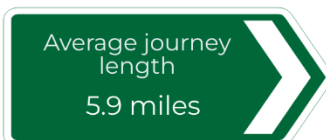
Journeys: % by main mode and average



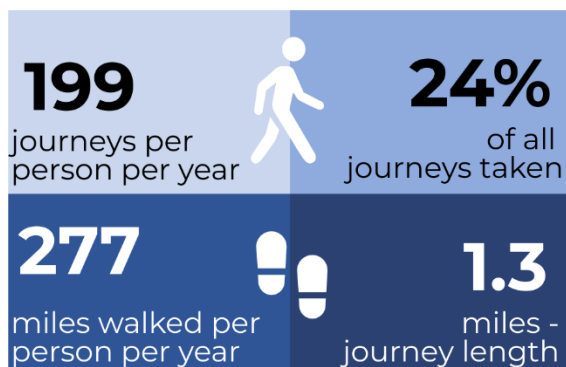
Distance travelled: % by mode and average



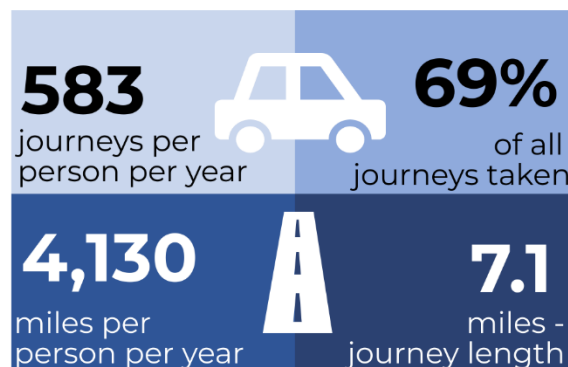
How far people travel



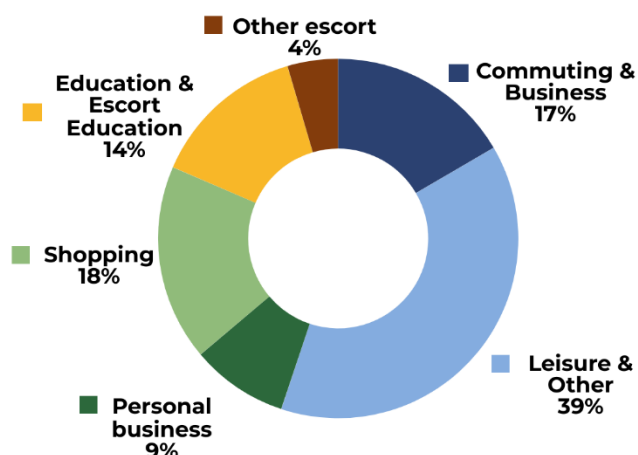
Key walking facts



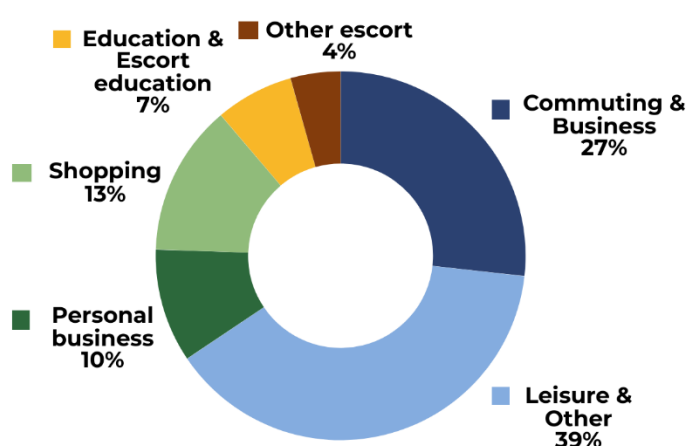
Key car facts



Journeys: % by purpose



Distance travelled: % by purpose



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About this publication

TSNI Headline Report 2021

This is the first release of 2021 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 2021 reports, please see the [User Information](#) section (page 17) and the [Definitions](#) section (page 25).

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

Data collection for the TSNI changed from April 2020 due to the COVID-19 pandemic. The key effects this has had on reporting the data are highlighted below along with what this means for the 2021 report.

Survey methodology changes mean 2020 & 2021 results not directly comparable with previous years

There were a number of significant changes to the survey methodology from April 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 data collection methodology from 2020](#) (page 20) in [User Information](#). Therefore, 2020 and 2021 results can be compared with each other but 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 27).

What this means for the 2021 report:

The commentary contained in the report is focussed on 2021 data and comparisons are only made with 2020 data. Each chart highlights that the survey methodology changed in 2020.

2020 data weighted/ 2021 data unweighted

In 2020, the data was weighted by quarter to ensure an even spread over the whole year as 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). Further details on the investigations into weighting the 2020 data are given in the 2020 Headline report. For 2021 data, although there were some variations, overall there was a more even distribution of the achieved sample over the quarters. Weighting options by gender, age and quarter were carefully considered and investigated, however it was found that these weights made no significant difference to the results. Therefore the 2021 data have been left unweighted.

What this means for the 2021 report:

2020 was the first time since the survey began that the data have been weighted. For 2021, data are unweighted, the same as data prior to 2020. Unweighted 2021 and weighted 2020 data can be compared.

Reporting 2020 and 2021 as a single year

It was decided that due to the methodology changes and because 2020 was an exceptional year, it would not be appropriate to combine 2020 data with previous years. For this report, it was decided to continue to report data after the methodology change as a single year and therefore 2021 is also being reported as a single year in the headline report. This has limited the analysis that can be done as the sample size is reduced by reporting only one year instead of the usual three years combined.

What this means for the 2021 report:

Single year charts added in 2020 have been retained along with charts with three years combined data for previous years (2016-2018, 2017-2019) to match the reporting in previous publications.

Achieved sample

The achieved sample size in 2021 of 785 households and 1,520 individuals was nearly double that of 2020 (415 households, 771 individuals). It is, however, less than achieved samples prior to 2020. This, along with the change to reporting data as a single year rather than three years combined, will limit the analysis that can be carried out.

What this means for the 2021 report:

Section 5 Journeys to and from school has been removed from 2020 onwards as the sample size is too small to provide robust analysis. [Travel to school data](#) from the Continuous Household Survey is available from the [Active and Sustainable Travel section](#) of the Statistics and Research pages on the DfI website.

Reporting 95% confidence intervals

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

What this means for the 2021 report:

To assist with gauging the level of uncertainty in the data, 95% confidence intervals have been added to most of the charts from 2020 onwards.

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 2021 each person travelled, on average, 4,940 miles with a 95% confidence interval of +/- 245 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 4,695 and 5,185 miles i.e. the values indicated by the shaded area around 2021 in Figure 1.1 (page 3) and Figure 1.3 (page 4).

* 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 2021, each person travelled, on average, 4,940 miles (approximately 13.5 miles per day), no real change from the previous year (4,550 miles per person in 2020).

On average, 838 journeys were made per person in 2021 (just over 2 journeys per day), similar to 2020 (826 journeys per person).

In 2021, the average journey length was 5.9 miles, an increase from the previous year (5.5 miles in 2020).

Figure 1.1: Distance 2009-2011 to 2021¹ (all modes)

Average miles travelled per person per year

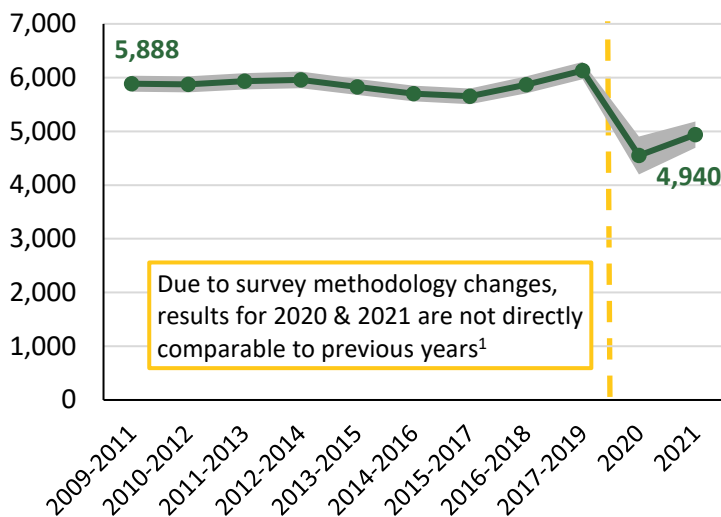
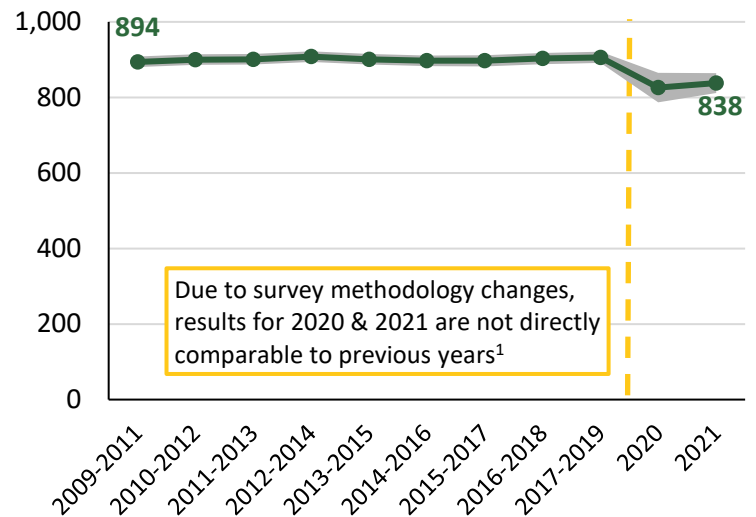


Figure 1.2: Journeys 2009-2011 to 2021¹ (all modes)

Average journeys per person per year



¹ The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 & 2021 results are not directly comparable to those of previous years. See [About this publication](#) section (page 1) for details.

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

Figure 1.3: Distance 2011 to 2021¹ (all modes)
Average miles travelled per person per year

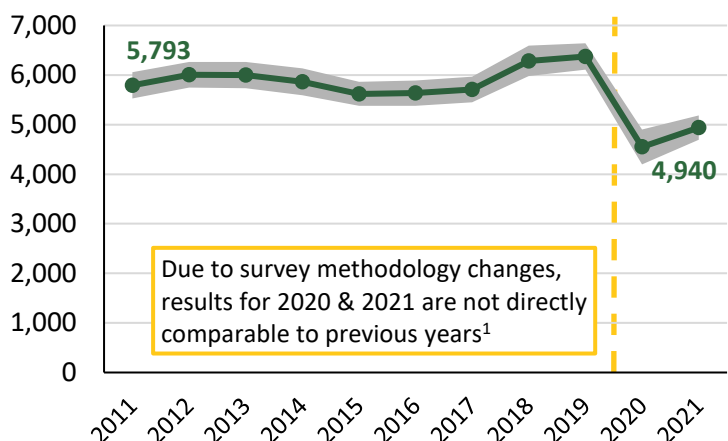
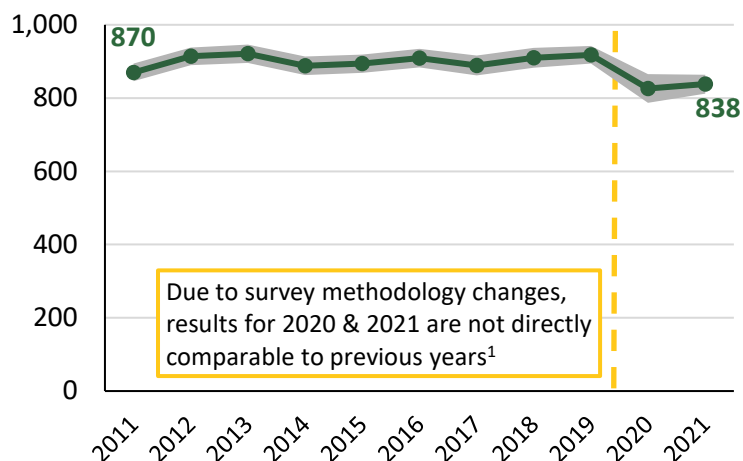


Figure 1.4: Journeys 2011 to 2021¹ (all modes)
Average journeys per person per year



¹ The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 & 2021 results are not directly comparable to those of previous years. See [About this publication](#) section (page 1) for details.

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

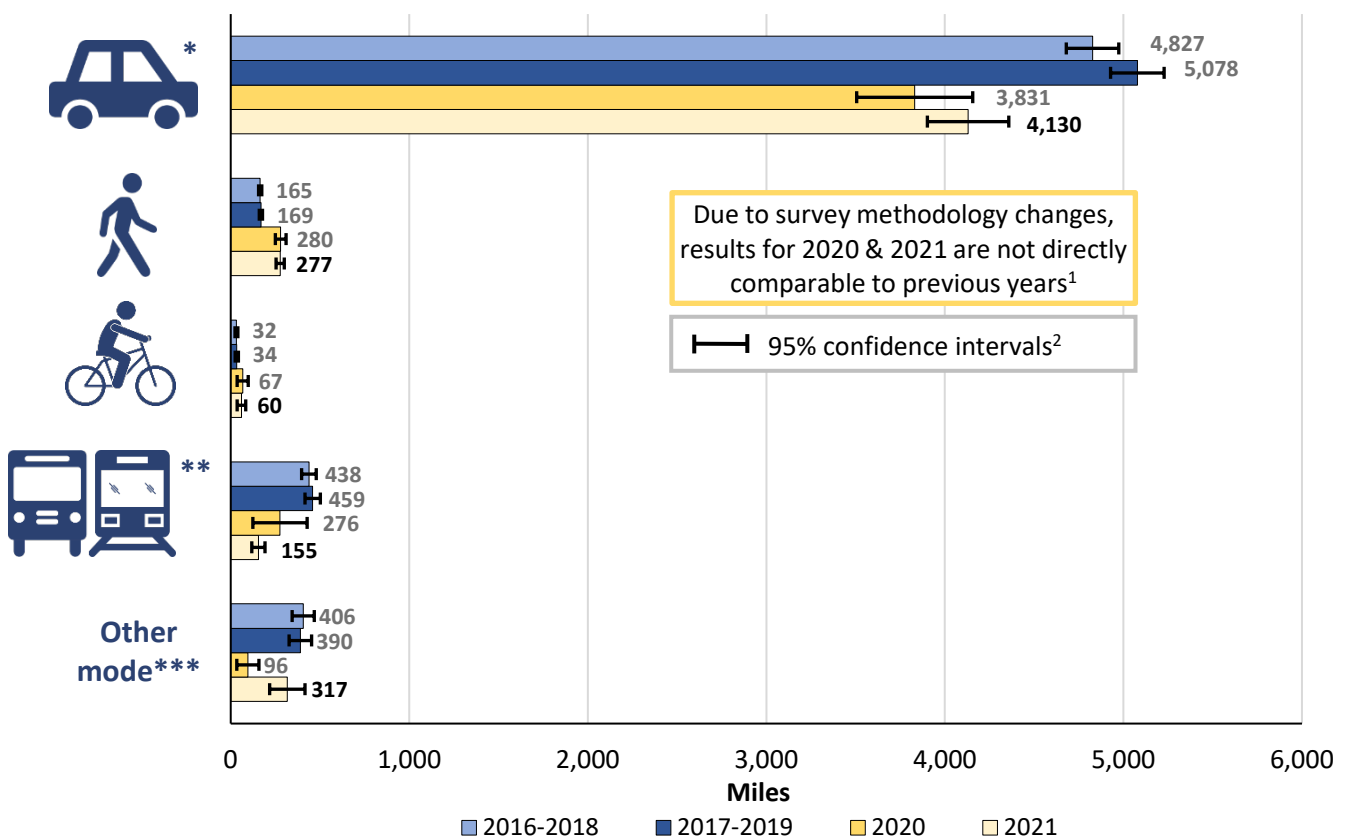
Distance travelled by mode

During 2021, more than four fifths (84%) of the total distance travelled was by car (as a driver or passenger), the same proportion as 2020. On average, 4,130 miles were travelled per person by car during this period, no real difference from 2020 (3,831 miles).

Walking accounted for 6% of the total distance travelled, the same percentage as 2020. On average, 277 miles were walked per person in 2021, around the same as 2020 (280 miles).

3% of the total distance travelled was on public transport (Ulsterbus, Metro, Other Bus, Northern Ireland Railways and Black Taxi), a decrease from 2020 (6%). However, looking at average miles travelled by public transport, there was no real difference comparing 2021 with 2020 (an average of 155 miles per person in 2021, 276 miles per person in 2020).

Figure 2.1: Average distance travelled per person per year by mode: 2016-2018 to 2021¹



¹ The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 & 2021 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).

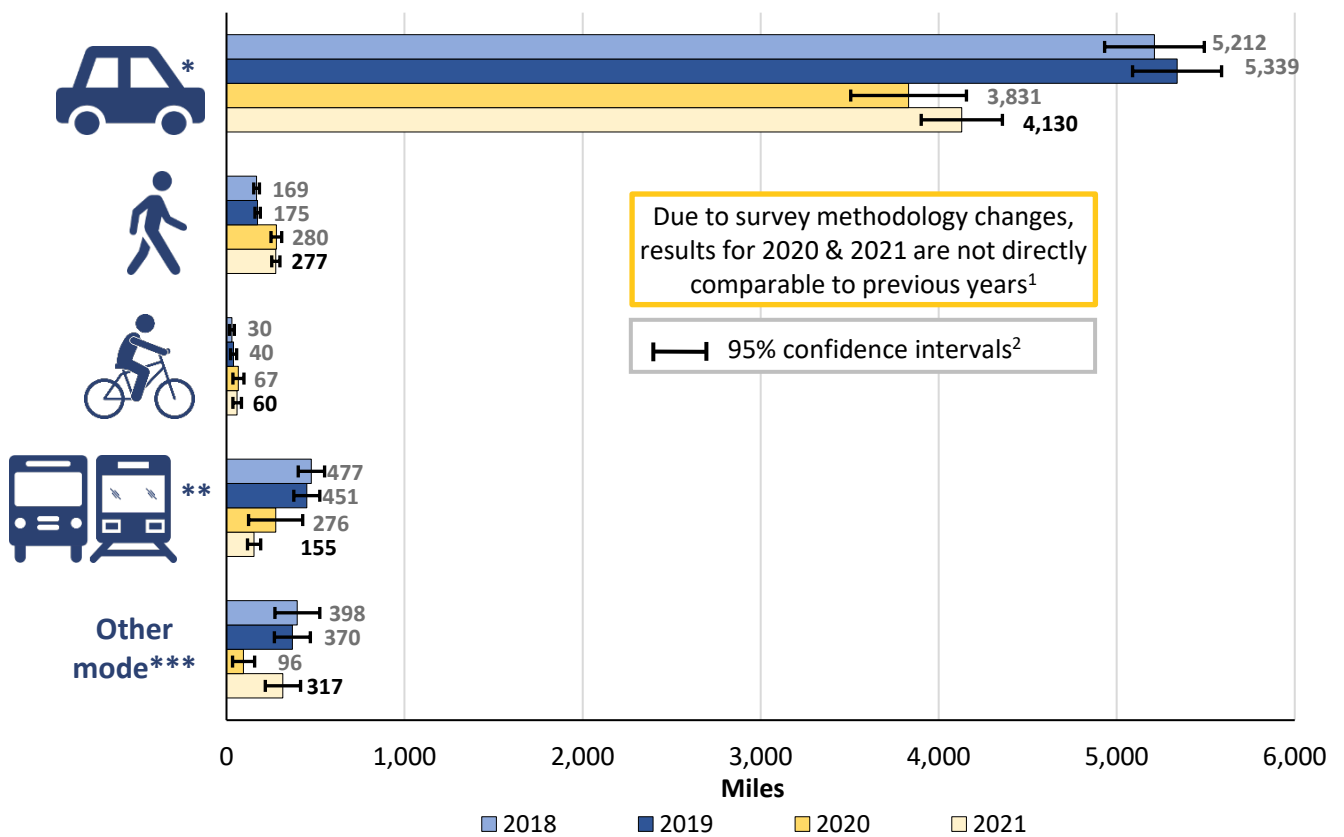
* Car includes 'Car driver', 'Car passenger' and 'Car undefined'

** 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 2020 for definitions of individual travel modes.

Figure 2.2: Average distance travelled per person per year by mode: 2018 to 2021¹



¹ The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 & 2021 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).

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Average number of journeys by main mode

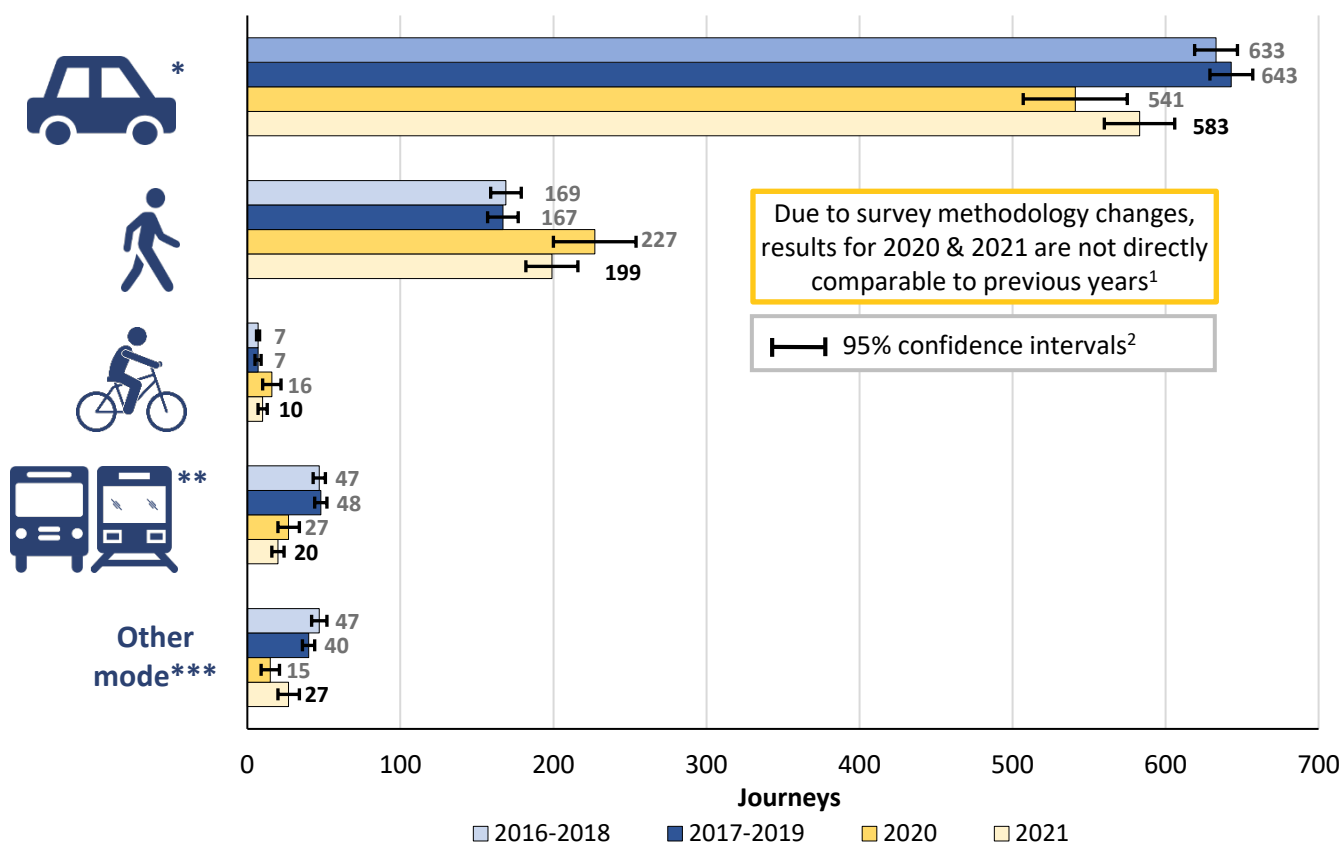
On average, 583 car journeys were taken per person in 2021. This equates to just under seven in ten (69%) of all journeys made, similar to 2020 (65%). However, looking at average number of journeys by car, there was an increase from 541 journeys in 2020 to 583 journeys in 2021.

There were 199 walking journeys per person in 2021. This represents just under one quarter (24%) of all journeys made, similar to 2020 (27%).

In 2021, 20 public transport journeys were made per person. This equates to 2% of all journeys made, no real difference from 2020 (3%).

In 2021, 1% of all journeys were made by cycling. There was an average of 10 cycling journeys per person in 2021, no real change from 2020 (16 journeys).

Figure 2.3: Average number of journeys per person per year by main mode: 2016-2018 to 2021¹



¹ The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 & 2021 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).

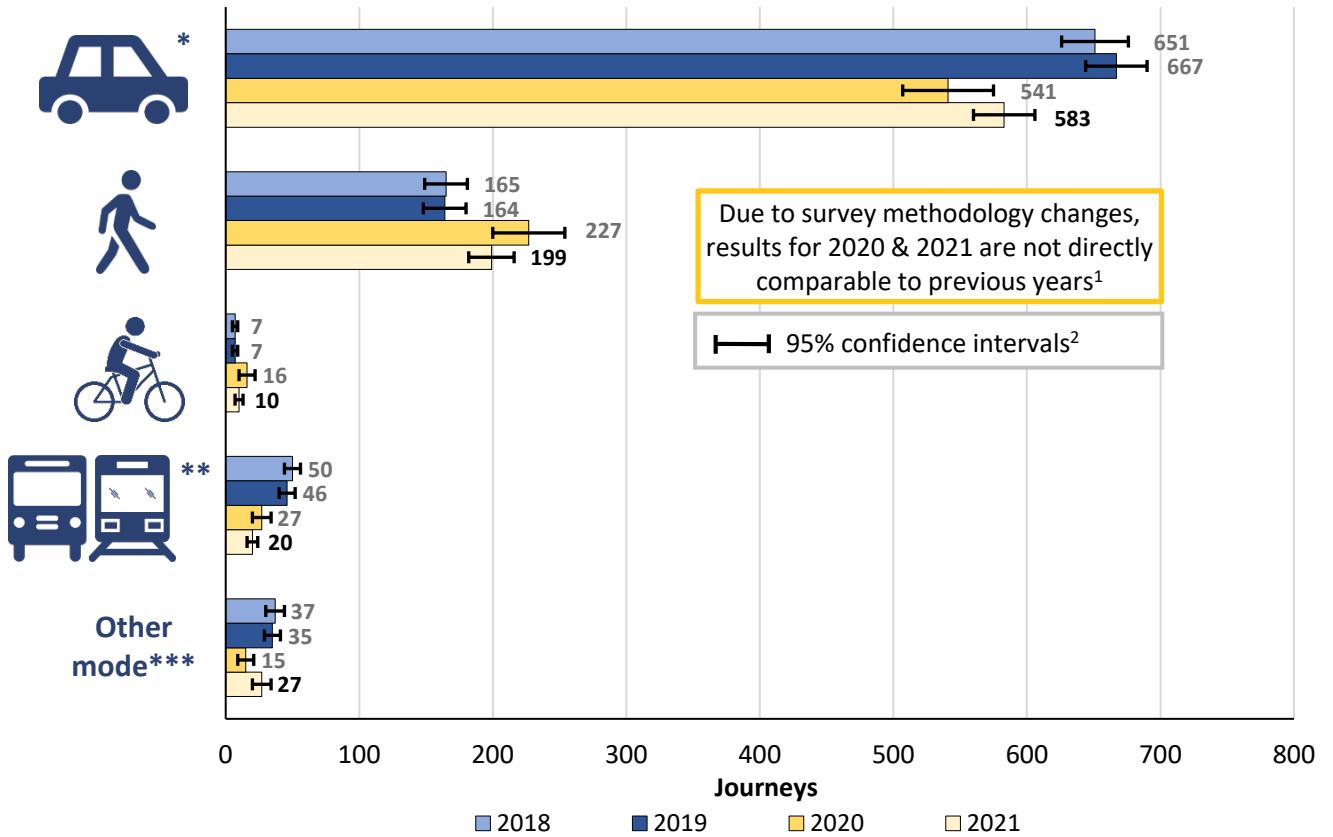
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** Public Transport includes 'Metro and Ulsterbus', 'Other bus', 'NI Railways' and 'Black taxi'

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

See Travel Survey for Northern Ireland In-depth Report 2020 for definitions of individual travel modes.

Figure 2.4: Average number of journeys per person per year by main mode: 2018 to 2021¹



¹ The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 & 2021 results are not directly comparable to those of previous years. See [About this publication](#) section (page 1) for details.

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*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 2020 for definitions of individual travel modes.

Looking at the full breakdown of main modes of travel, car driver journeys accounted for almost half (49%) of all journeys made and car passenger journeys made up a further one fifth (20%). Nearly one quarter (24%) of all journeys were walks in 2021.

Table 2.1: Average number of journeys per person by main mode*: 2021

| Travel mode* | Journeys per person | |
|---------------------|---------------------|-------------|
| | Average Number | % |
| Walk | 199 | 24% |
| Bicycle | 10 | 1% |
| Car Driver | 412 | 49% |
| Car Passenger | 171 | 20% |
| Car Undefined | - | - |
| Motorcycle | 1 | <0.5% |
| Other private** | 19 | 2% |
| Metro and Ulsterbus | 16 | 2% |
| Other bus | 2 | <0.5% |
| NI Railways | 3 | <0.5% |
| Black taxi | - | - |
| Taxi | 7 | 1% |
| Other public | - | - |
| Undefined mode | - | - |
| All modes | 838 | 100% |

* See Travel Survey for Northern Ireland In-depth Report 2020 for definitions of travel mode

** Other private includes vans, lorries, land rovers, jeeps, invalid carriages, motorised wheelchairs, caravans, dormobiles, minibuses, private aircraft, etc. (see full definition in Travel Survey for Northern Ireland In-depth Report 2020)

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

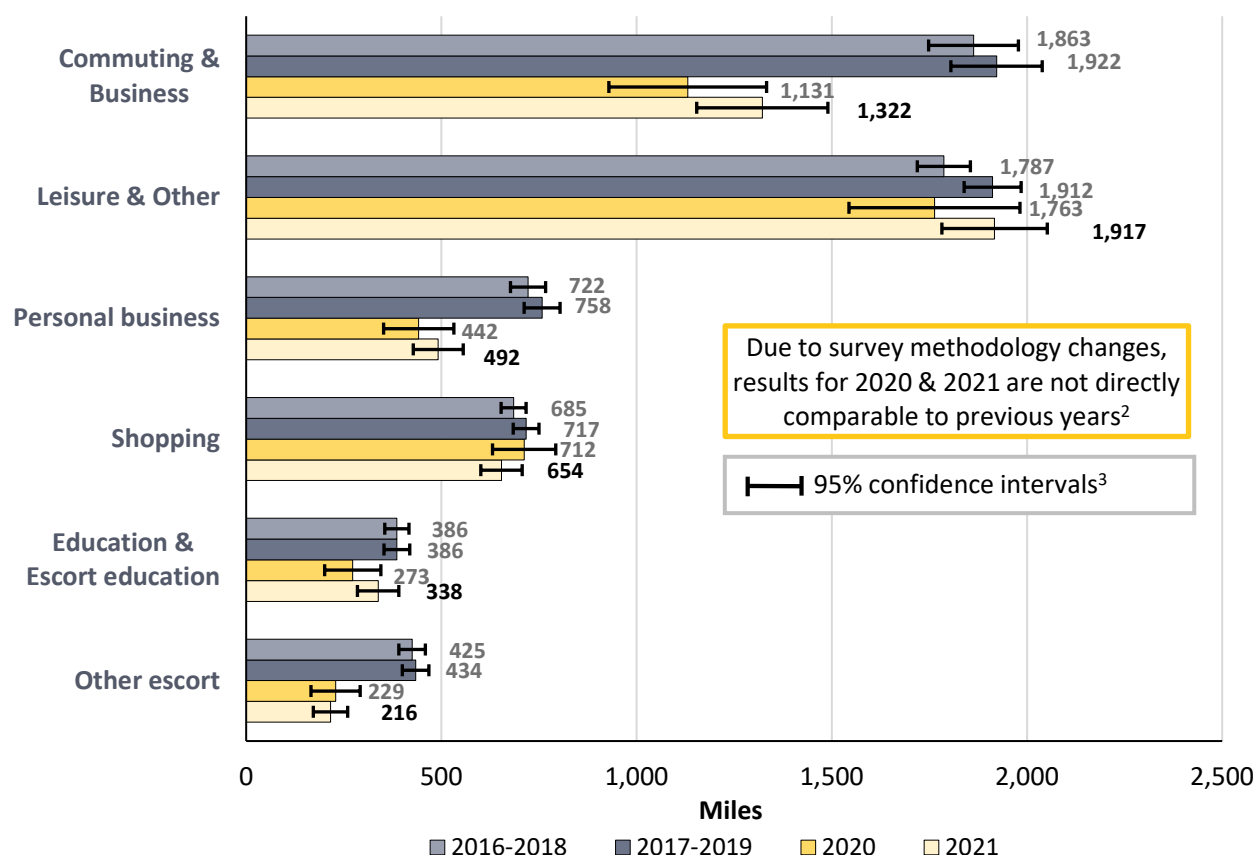
On average, 1,917 miles were travelled per person for leisure and other¹ purposes in 2021. This represents almost two fifths (39%) of the total distance travelled, the same as 2020 (39%).

Just over one quarter (27%) of the total distance travelled in 2021 was for commuting and business, no real change from 2020 (25%). The average distance travelled for these purposes was 1,322 miles per person during this period.

In 2021, 13% of the total distance travelled was for shopping, similar to 2020 (16%). On average, 654 miles per person were travelled for this purpose in 2021.

An average of 492 miles per person were travelled for personal business purposes (journeys to services, such as the bank, doctor or library) in 2021. This equates to 10% of the total distance travelled, the same as 2020 (10%).

Figure 3.1: Average distance travelled per person per year by purpose¹: 2016-2018 to 2021²

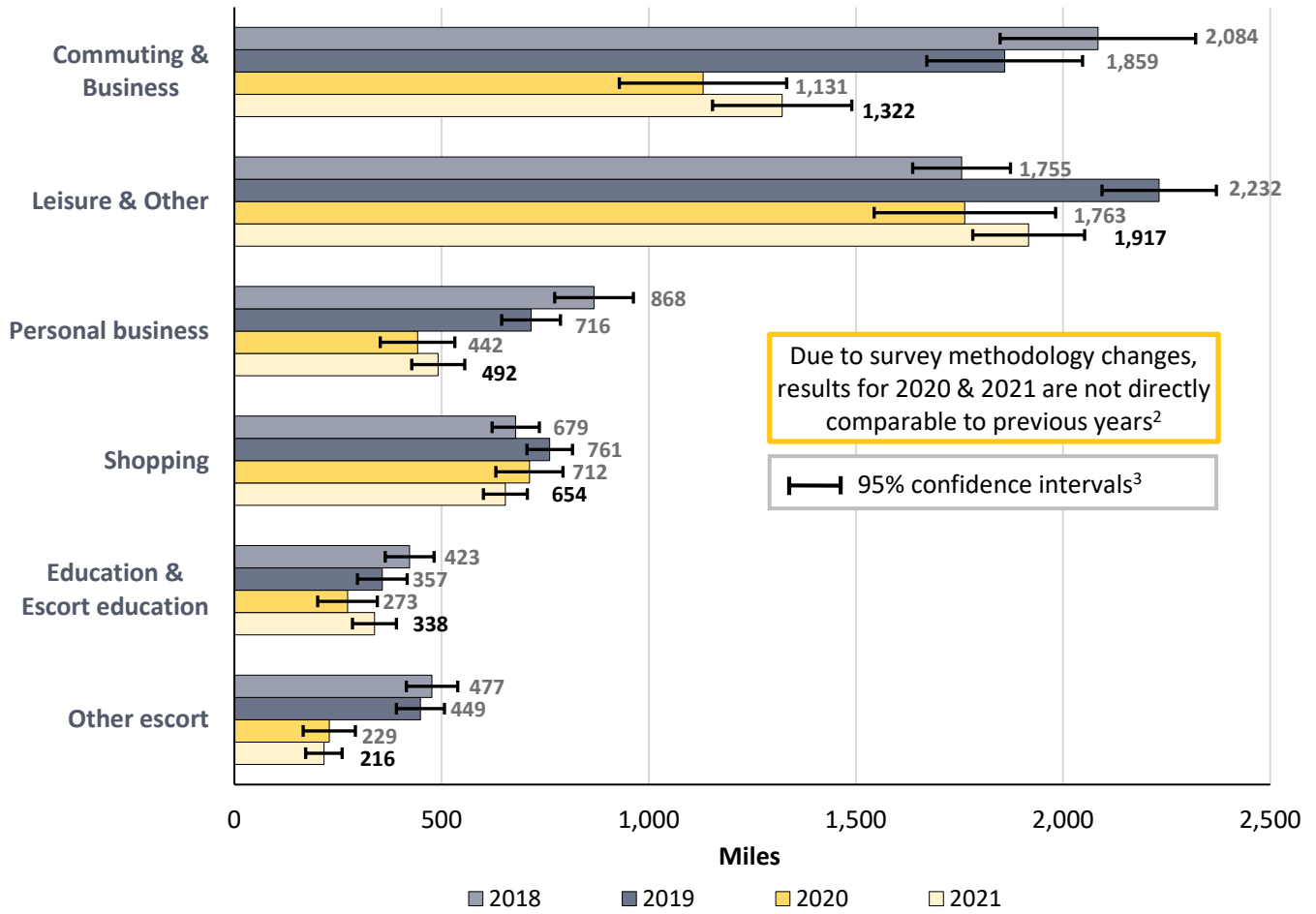


¹ See Travel Survey for Northern Ireland In-depth Report 2020 for definitions of journey purpose. Leisure and Other category includes 'Visit friends at private home', 'Visit friends elsewhere', 'Entertainment/public social activities', 'Sport participate', 'Holiday base', 'Day trip', 'Other including just walk' and 'Undefined purpose'.

² The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 & 2021 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: 2018 to 2021²



¹ See Travel Survey for Northern Ireland In-depth Report 2020 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 & 2021 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 323 leisure and other¹ journeys taken per person in 2021. This represents just under two fifths (39%) of all journeys made, similar to 2020 (43%).

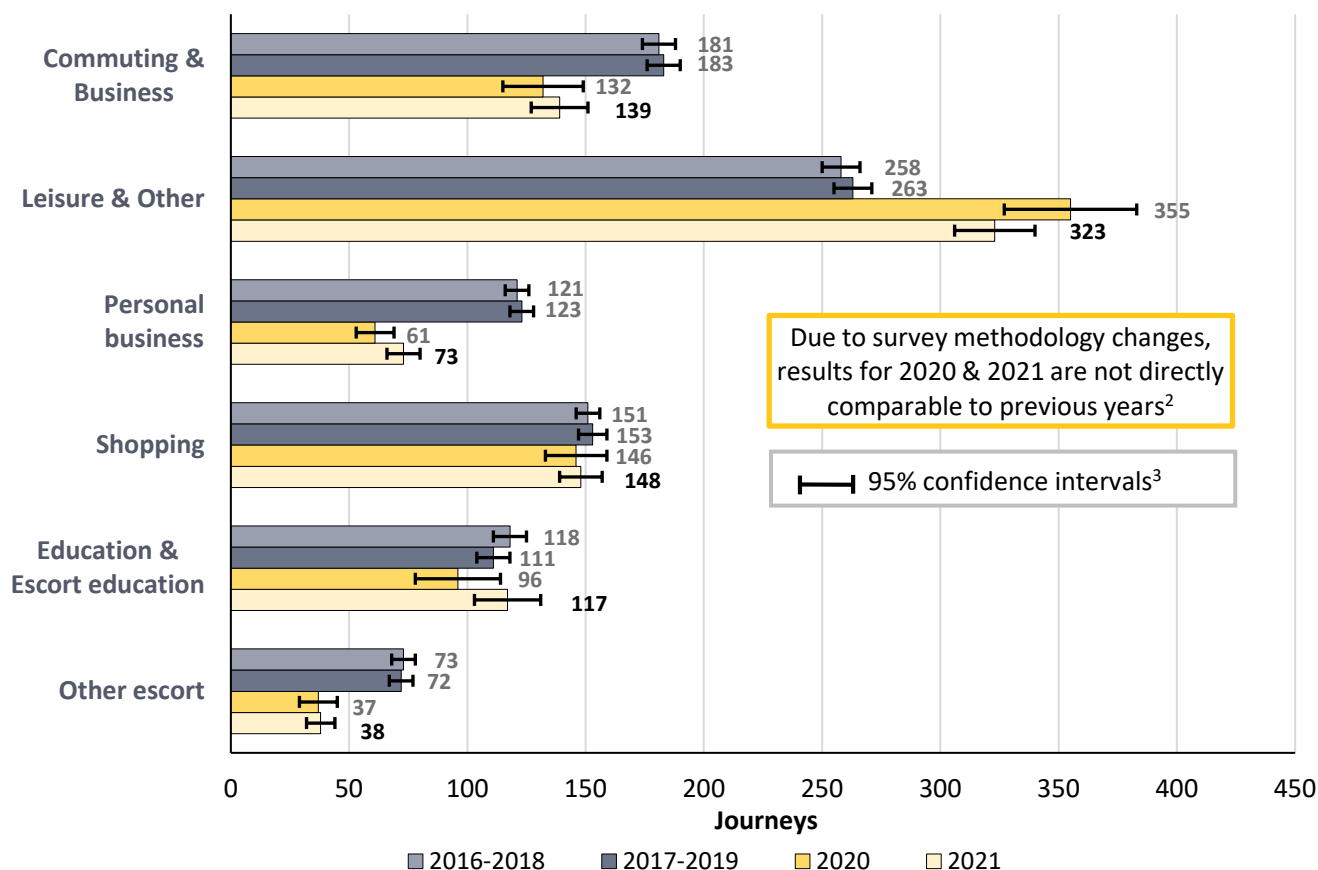
Each person made, on average, 148 shopping journeys during 2021, which represents almost one fifth (18%) of all journeys made, the same as 2020 (18%).

On average, 139 commuting and business journeys were taken per person in 2021. This equates to 17% of all journeys made, no real change compared to 2020 (16%).

There were 117 education and escort education journeys made per person in 2021 (e.g. a schoolchild going to school, a student going to college/university, a parent taking a child to school). This accounted for 14% of all journeys made, similar to 2020 (12%).

In 2021, 73 personal business journeys were taken per person, an increase from 2020 (61 journeys). However, looking at personal business as a proportion of all journeys made, there was no real difference comparing 2021 (9%) and 2020 (7%).

Figure 3.3: Average number of journeys per person per year by purpose¹: 2016-2018 to 2021²

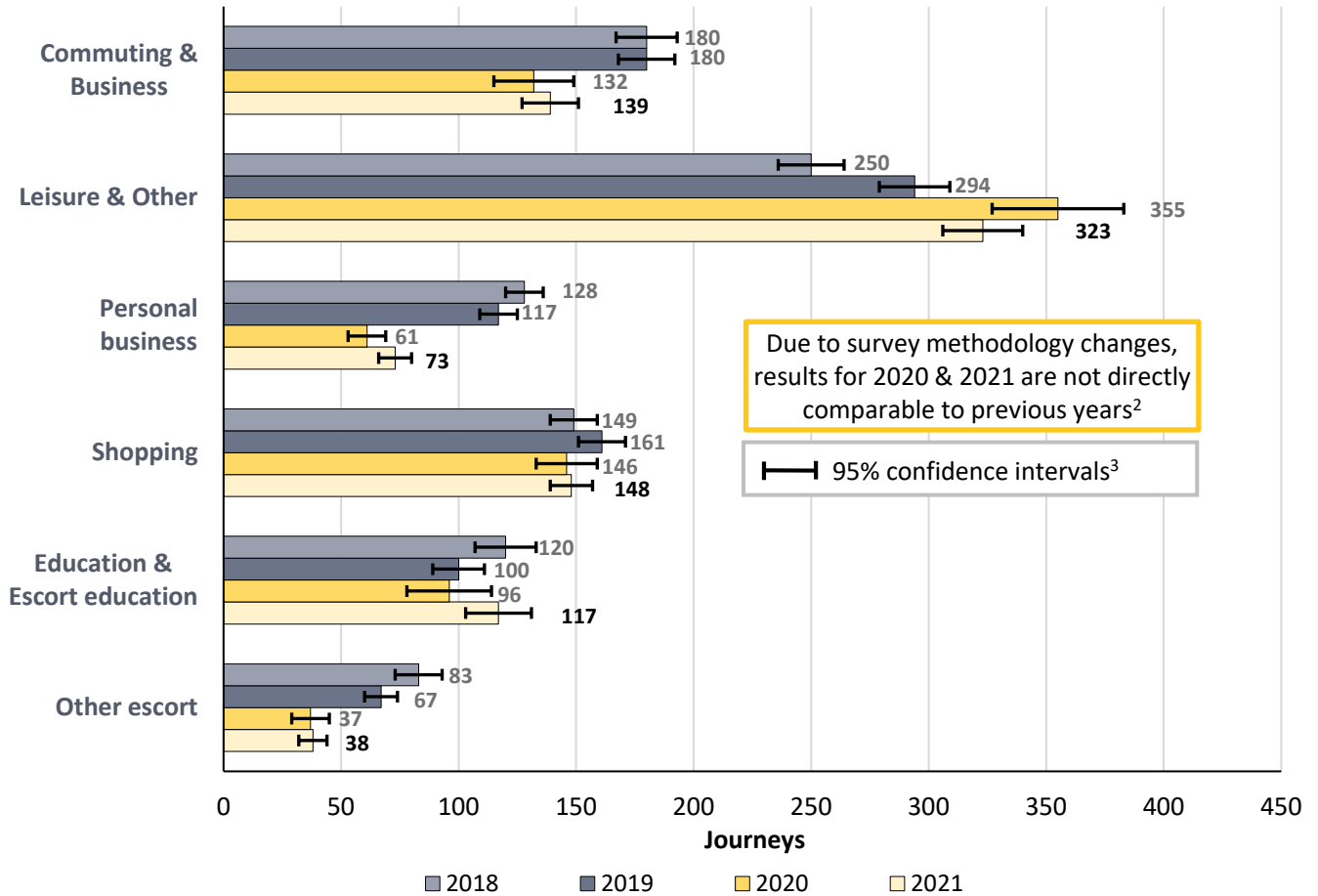


¹ See Travel Survey for Northern Ireland In-depth Report 2020 for definitions of journey purpose. Leisure and Other category includes 'Visit friends at private home', 'Visit friends elsewhere', 'Entertainment/public social activities', 'Sport participate', 'Holiday base', 'Day trip', 'Other including just walk' and 'Undefined purpose'.

² The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 & 2021 results are not directly comparable to previous years. See [About this publication](#) section (page 1) for details.

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Figure 3.4: Average number of journeys per person per year by purpose¹: 2018 to 2021²



¹ See Travel Survey for Northern Ireland In-depth Report 2020 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 & 2021 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).

Looking at the full breakdown of single journey purposes, the top reason for making a journey was shopping (18%). Other popular reasons included ‘other including just walk’ (15%), which is mostly made up of walking journeys made just for pleasure/exercise, commuting (13%) and ‘visit friends at private home’ (11%).

Table 3.1: Average number of journeys per person by purpose*: 2021

| Journey purpose* | Journeys per person | |
|---|---------------------|-------------|
| | Average number | % |
| Commuting | 112 | 13% |
| Business | 27 | 3% |
| Education | 46 | 6% |
| Escort Education | 71 | 8% |
| Shopping | 148 | 18% |
| Other escort | 38 | 4% |
| Personal Business | 73 | 9% |
| Visit friends at private home | 95 | 11% |
| Visit friends elsewhere | 12 | 1% |
| Entertainment/ public social activities | 16 | 2% |
| Sport participate | 25 | 3% |
| Holiday base | 5 | 1% |
| Day trip | 41 | 5% |
| Other including just walk | 128 | 15% |
| Undefined purpose | - | - |
| All purposes | 838 | 100% |
| Journeys per worker per year: | | |
| Commuting | 235 | |
| Business | 60 | |

* See Travel Survey for Northern Ireland In-depth Report 2020 for definitions of journey purpose

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

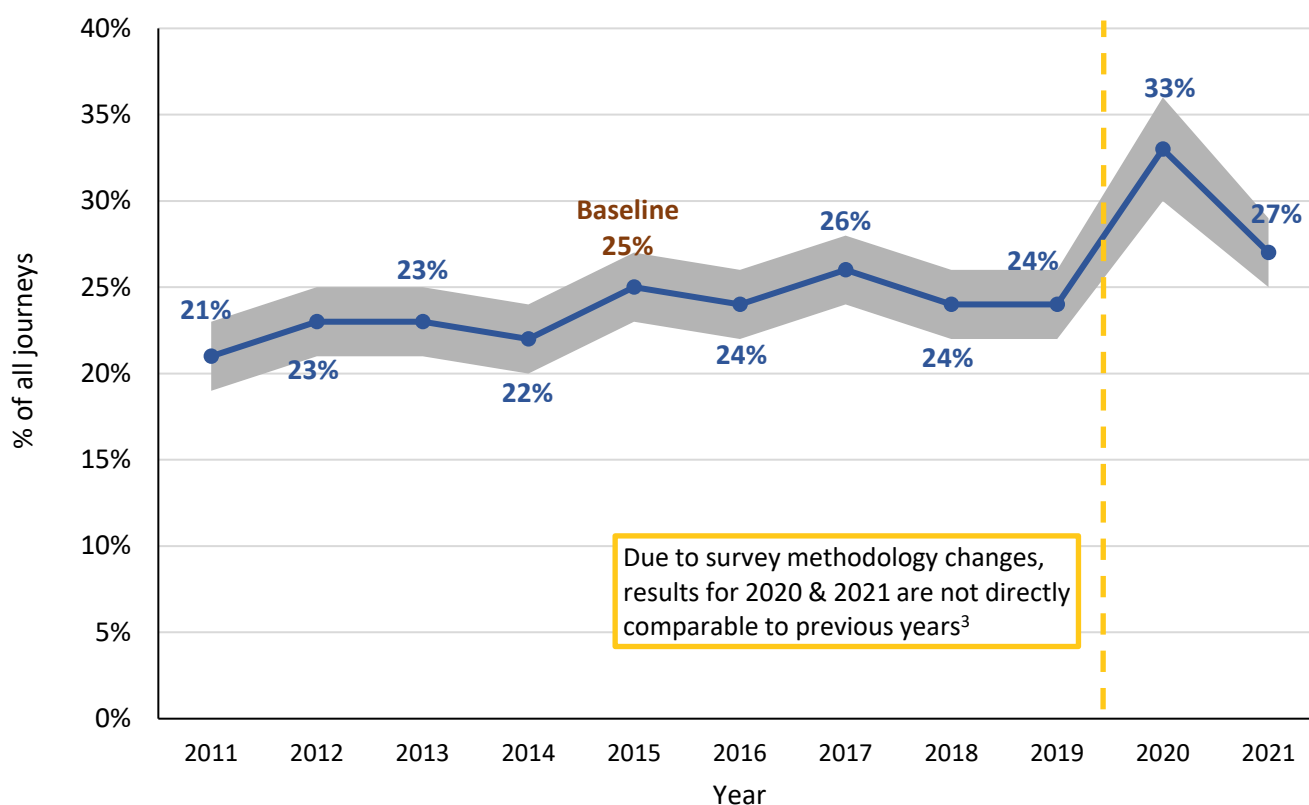
Section 4: Journeys made by walking, cycling or public transport

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 2021, over one quarter (27%) of all journeys were taken by walking, cycling or public transport, a decrease from 2020 (33%).

Figure 4.1: Proportion of all journeys where the main mode of travel¹ is walking, cycling or public transport²: 2011 to 2021³



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.

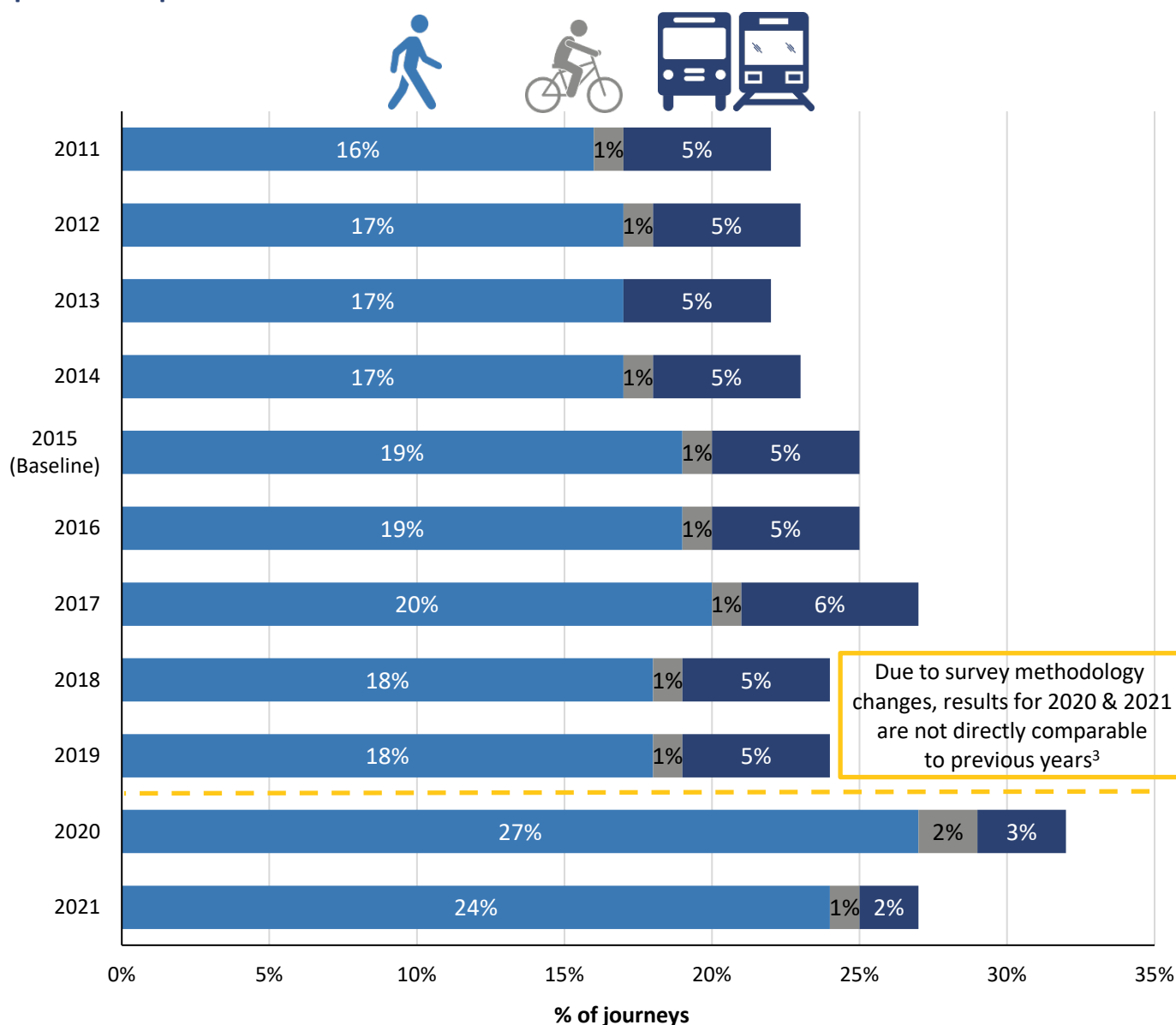
² Public Transport includes 'Metro and Ulsterbus', 'Other bus', 'NI Railways' and 'Black taxi'

³ The survey methodology changed in 2020 in response to the COVID-19 pandemic. Therefore, 2020 & 2021 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 2021 the proportion of all journeys made by walking was 24% and by public transport was 2%, similar to 2020 (27% and 3% respectively), while the proportion of all journeys made by cycling decreased from 2% in 2020 to 1% in 2021.

Figure 4.2: Proportion of all journeys where the main mode of travel¹ is walking, cycling or public transport²: 2011 to 2021³



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 & 2021 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

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).

Travel included in the survey

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

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. Please note that percentages in the tables and commentary are calculated using unrounded figures.

Weeks in a year

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

Symbols

The following symbols have been used in this report:

- = negligible (average less than 0.5 (including 0) or % based on this average)
- <0.5% = less than 0.5%

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 – comparing 2020 and 2021 data

There were a number of changes to the survey methodology from April 2020 in response to the COVID-19 pandemic. See [Changes to data collection methodology from 2020](#) section (page 20) for more details. Therefore, 2020 and 2021 results can be compared with each other but are not directly comparable to those of previous years and caution should be taken in reaching any conclusions if making these comparisons.

Only those differences that are statistically significant ($p < 0.05$) have been highlighted in the commentary within this report and are denoted in the text as increase/decrease, higher/lower etc. This 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.

Where the term 'similar', 'no real difference', 'no real change', 'in line with' or 'around the same' has been used when comparing results, it means that there is no significant difference between the results being compared.

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 |

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 2021 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 and 2021 as a single year

It was decided that due to the methodology changes and because 2020 was an exceptional year, it would not be appropriate to combine 2020 data with previous years. For this report, it was decided to continue to report data after the methodology change as a single year and therefore 2021 is also being reported as a single year in the headline report. This has limited 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:

- Tables containing the full breakdown of travel modes and journey purposes for average number of journeys per person were added to the 2021 report, following a user request.
- To better communicate uncertainty and change, 95% confidence intervals were added to the charts from the 2020 edition of the report onwards.
- 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 17).
- 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 and 2021 editions 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 2021 is the first publication based on the 2021 TSNi data. The headline report contains key results for 2021 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 and 2021 data (see [How the COVID-19 pandemic has affected data collection and reporting from 2020](#) (page 1)). This additional work combined with the delay in receiving TSNi datasets during the COVID-19 pandemic and subsequent delay to the publication of earlier reports, continues to have a knock-on effect on the usual publication timetable of the TSNi reports. The previous Headline Report (2020) was released in March 2022 but, in the past the Headline Reports would be issued in the Summer.

A technical report, supplementary to this report, is planned for Spring 2023. This will contain information on 2021 survey response rates and confidence ranges.

The next release of 2021 results, the TSNi In-depth Report 2021, is planned for publication in Summer 2023. The scope of the 2020 In-depth Report was reduced compared to previous publications due to the reduction in the achieved sample which limited the analysis that could be carried out. We will need to investigate and determine if additional tables can be published for 2021 providing the achieved sample is sufficient to produce robust analysis. 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 data collection methodology from 2020

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 (160) as for the face to face survey and advance letters and reminder letters were sent out to the selected households.

From April 2020 to June 2021, 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. Note that from March to June 2021, the number of households selected for the survey was doubled to 320 to try to increase the achieved sample.

From July 2021 onwards, a new approach was taken to contacting households: “knock to nudge”. The number of households selected for the survey each month returned to 160. An advance letter was sent as usual and this was followed up by the interviewer calling at the address. Adhering to COVID-19 health and safety restrictions, interviewers did not enter the property and only collected contact information. This was followed up with a telephone interview.

Some further changes to the methodology from April 2020 included the travel diary data collection, with responsibility for completion moving from respondents to interviewers (who received journey details over the telephone). There were also changes to how some questions were asked or presented with the move to telephone interviewing.

The questionnaire had been streamlined in 2020 to reduce completion time. In 2021 almost all the questions that had been removed in 2020 were reinstated.

Impact of changes on reporting data from 2020

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, 2020 and 2021 results can be compared with each other but are not directly comparable to those of previous years and caution should be taken in reaching any conclusions if making these comparisons (further details are in [Appendix C](#) (page 27)). Therefore the commentary within the report is focussed on 2021 data and comparisons are only made with 2020 data.

Achieved sample

The achieved sample size in 2021 of 785 households and 1,520 individuals was nearly double that of 2020 (415 households, 771 individuals). It is higher than 2020, in part, due to the doubling of the selected sample during March to June 2021 and the introduction of the “knock to nudge” approach of contacting households which led to a higher response rate. It is, however, less than achieved samples prior to 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. For this report, it was decided to continue to report data after the methodology change as a single year and therefore 2021 is also being reported as a single year. The sample size is reduced by reporting only one year instead of the usual three years combined. This will limit the analysis that can be carried out 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 and this has been removed from 2020 onwards. Note that [Travel to school data](#) from the Continuous Household Survey is available from the [Active and Sustainable Travel section](#) of the Statistics and Research pages on the DfI website.

2020 data weighted and 2021 data unweighted

Investigating weighting by quarter

In 2020, the data were weighted by quarter. This is the first time since the survey began that the data have been weighted. 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). Weighting by quarter ensured an even spread over the whole year.

For 2021 data, although there were some variations, overall there was a more even distribution over the quarters. Weighting by quarter was investigated thoroughly, however it was found that this made no significant difference to the results. Therefore, it was decided to not weight 2021 data by quarter.

Investigating other weighting options

Other weighting options based on demographic factors were also 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 and 2021 data, it was found that these weights made no significant difference to the results. Therefore, it was decided not to weight by any of these demographic factors.

2021 data unweighted

The 2021 data have been left unweighted, the same as data prior to 2020. Unweighted 2021 and weighted 2020 data can be compared.

Survey methodology

Information for the survey is collected using two methods: a computer interview and a paper travel diary. Prior to April 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 2021, a sample of 2,560 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.

785 households and 1,520 persons were interviewed for the TSNI over the time period 1 January to 31 December 2021.

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 25 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 and 2021 update: We have been unable to explore this further in 2020 and 2021 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 25 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 2020](#).

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 and 2021 data

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. Since then, 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 and 2021 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 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 2021 achieved sample (785 households, 1,520 individuals) has nearly doubled from the 2020 achieved sample (415 households, 771 individuals). It is, however, less than achieved samples prior to 2020. This, along with the change to reporting data as a single year rather than three years combined, means 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 and 2021 data compared to previous years have to be considered in the context of all of the above.

While 2020 and 2021 results can be compared to each other, care should be taken in reaching any conclusions based on these data and comparisons to previous years. It would be advisable to look at changes in behaviour or attitudes contained in the 2020 and 2021 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.