Department for Infrastructure
An Roinn Bonneagair
www.infrastructure-ni.gov.uk

Public Transport Journey Planning in Northern Ireland 2018/2019

Findings from the Northern Ireland Continuous Household Survey 2018/2019

An Official Statistics Publication

Published by: Analysis, Statistics & Research Branch
Department for Infrastructure, Room 4.13c, Clarence Court, 10-18 Adelaide Street, Belfast, BT2 8GB

Contact: Colleen Crawford
Telephone: 028 9054 0865 (Text relay prefix 18001)
E-mail: ASRB@nisra.gov.uk

Theme: Travel and Transport
Coverage: Northern Ireland
Frequency: Annual

NISRA
Northern Ireland Statistics and Research Agency
Gníomhaireacht Thuaisceart Éireann um Staitistící agus Taighde

CONTENTS

This publication is also available at:
https://www.infrastructure-ni.gov.uk/articles/public-transport-journey-planning

Department for Infrastructure
An Roinn Bonneagair
www.infrastructure-ni.gov.uk

Public Transport Journey Planning in Northern Ireland

Continuous Household Survey 2018/2019

NISRA
Northern Ireland Statistics and Research Agency
Gníomhaireacht Thuaisceart Éireann um Staitistící agus Taighde

Awareness of resource (% of all respondents)			Use of resource (% of relevant respondents)[1]		
2017/18	2018/19		2017/18	2018/19	
62%	61%	Timetable - Translink website	58%	59%	↔
58%	52%	Timetable - Hard copy	38%	34%	↓
34%	32%	Translink journey planner PC/laptop	23%	22%	↔
33%	29%	Translink call centre	14%	12%	↔
30%	32%	Translink journey planner mobile app	21%	25%	↑

↑ Increase in trend
↓ Decrease in trend
↔ No change

1. Only those who responded that they used some form of journey planning resource were asked which resources they used.

KEY POINTS

- Six in ten (61%) respondents were aware of the availability of timetables on the Translink website, and over half (52%) were aware of hard copy timetables.
- Half (50%) of those aged 16-24 years were aware of the Journey Planner mobile app compared with 11% of those aged 65 and over.
- Awareness of hard copy timetables was higher amongst those aged 65 and over (61%) than amongst those aged 16-24 (45%).
- Almost 7 in 10 respondents (69%) said they use available journey planning resources.
- 59% of these use timetables available on the Translink website.
- Those aged 65 and over are less likely to use the journey planner facility on personal computer/laptop (10%), or mobile app (4%) than those aged 16-24 (28% and 36%). They are, however, more likely to use hard copy timetables (67%), or the Translink call centre (16%).
- Those respondents who have a disability are more likely to use hard copy timetables (40%) and Translink call centre (16%) than those who do not have a disability (32% and 11%, respectively).

INTRODUCTION

The Department for Infrastructure (DfI) leads on public transport policy and provides funding to support and improve public transport through its service agreement with Translink (the Northern Ireland Transport Holding Company). The Department also provides grants to fund a range of passenger transport services with the aim of reducing rural and social isolation and also has responsibility for managing the Commercial Bus Service Permit system for licensed operators applying to run public passenger transport services within Northern Ireland.

Through these activities the Department makes a contribution to NICS Outcomes Delivery Plan outcomes, in particular Outcome 11 (We connect people and opportunities through our infrastructure).

DfI has commissioned questions in the Continuous Household Survey since 2016/17 to ascertain how people plan their journeys to travel on public transport. This information will be used to assist transport providers in identifying improvements to passenger information, including how technology can best be utilised to promote awareness of and access to public transport services. This report contains the latest findings for 2018/19 and includes comparisons with previous figures. Statistics are presented on the awareness and usage of journey planning resources and the methods used to plan a journey.

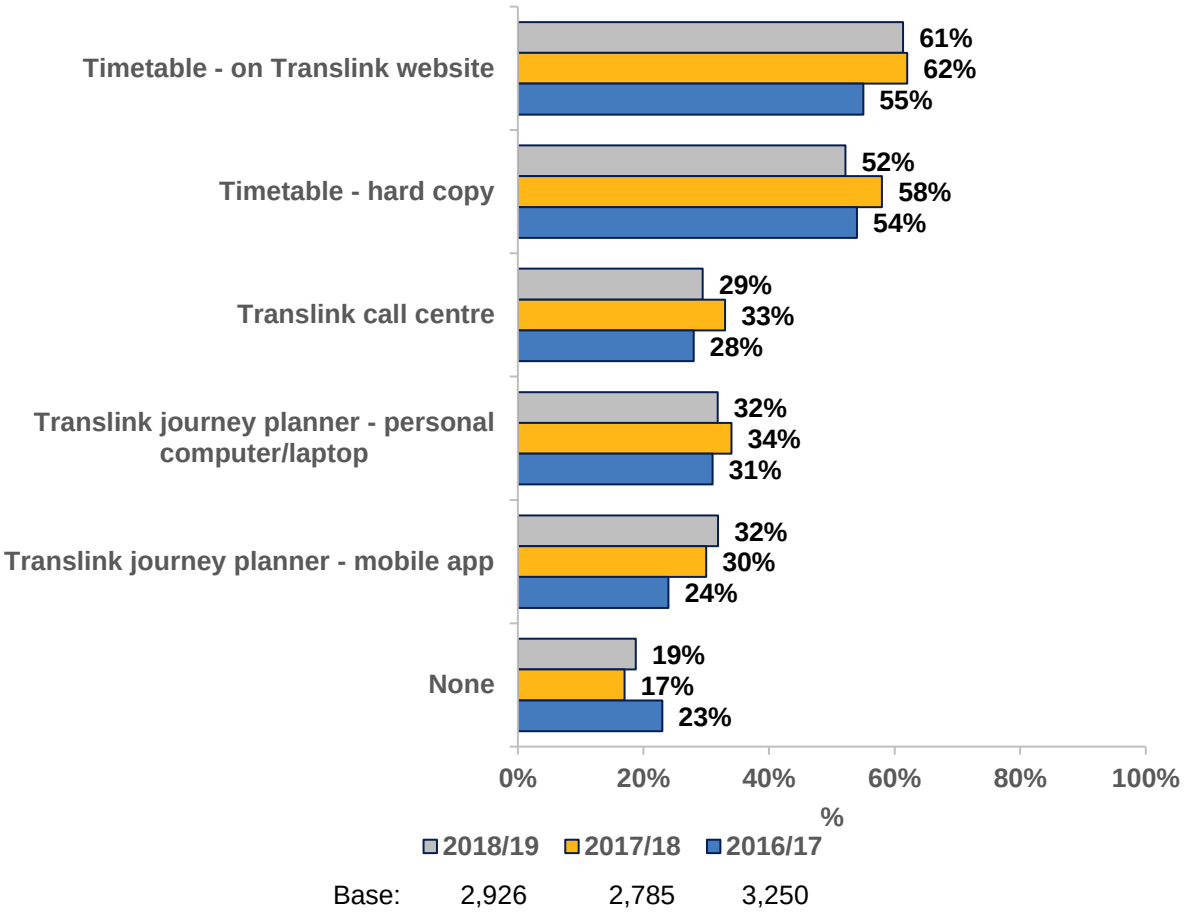
1. Awareness of Resources

1.1 Which of the following methods that can be used to plan journeys by public transport are you aware of?

Respondents were asked to indicate all of the methods of public transport journey planning of which they were aware. Respondents could select more than one option.

In 2018/19, the resource most respondents were aware of for accessing information on public transport journey planning in Northern Ireland was timetables, either on the Translink website (61%) similar to 2017/18, or via hard copy (52%) which is a decrease since 2017/18 (when the proportion was 58%).

Figure 1 - Which of the following methods that can be used to plan journeys by public transport are you aware of?*



Base:	2,926	2,785	3,250

*Respondents were able to select more than one response. Therefore percentages sum to more than 100%

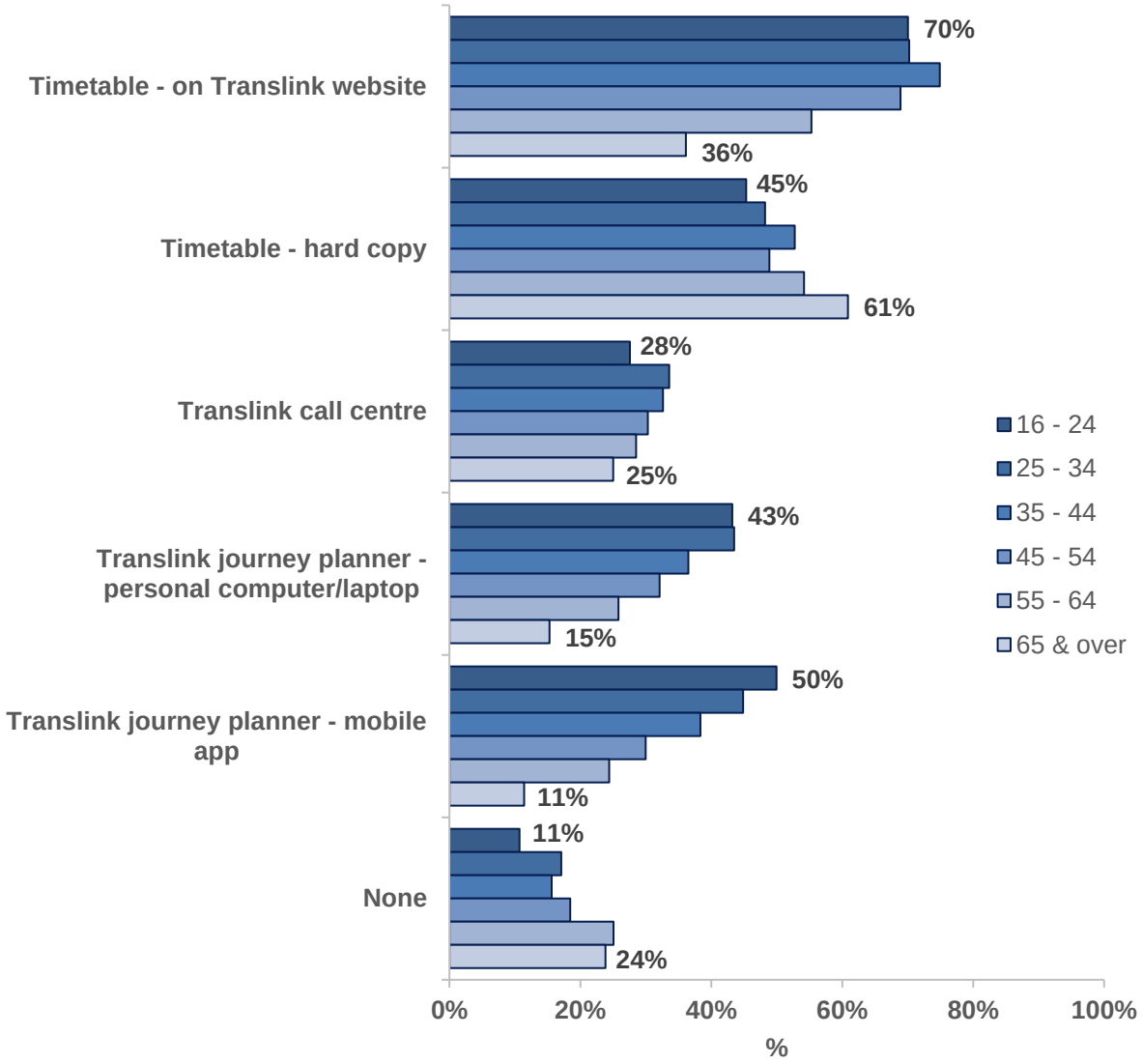
29% were aware of the Translink call centre which is lower than in 2017/18 (33%). Three in ten respondents were aware of the Journey Planner on the Translink website (32%) and the Journey Planner mobile app (32%) which is similar to 2017/18 (34% and 30%, respectively).

1.2 Differences in awareness of Journey Planning resources

Awareness of the range of journey planning resources varies across respondent group. Figure 2 shows that 70% of respondents aged 16-24 are aware of the availability of timetables on the Translink website, compared to 36% of those aged 65 and over.

Awareness is lower amongst respondents aged 65 and over for each of the available journey planning resources apart from hard copy timetables; where awareness was higher amongst those aged 65 and over (61%) than amongst respondents aged 16-24 (45%), and Translink call centre; where awareness was similar amongst both age groups.

Figure 2 - Awareness of journey planning resource by age: 2018/19*



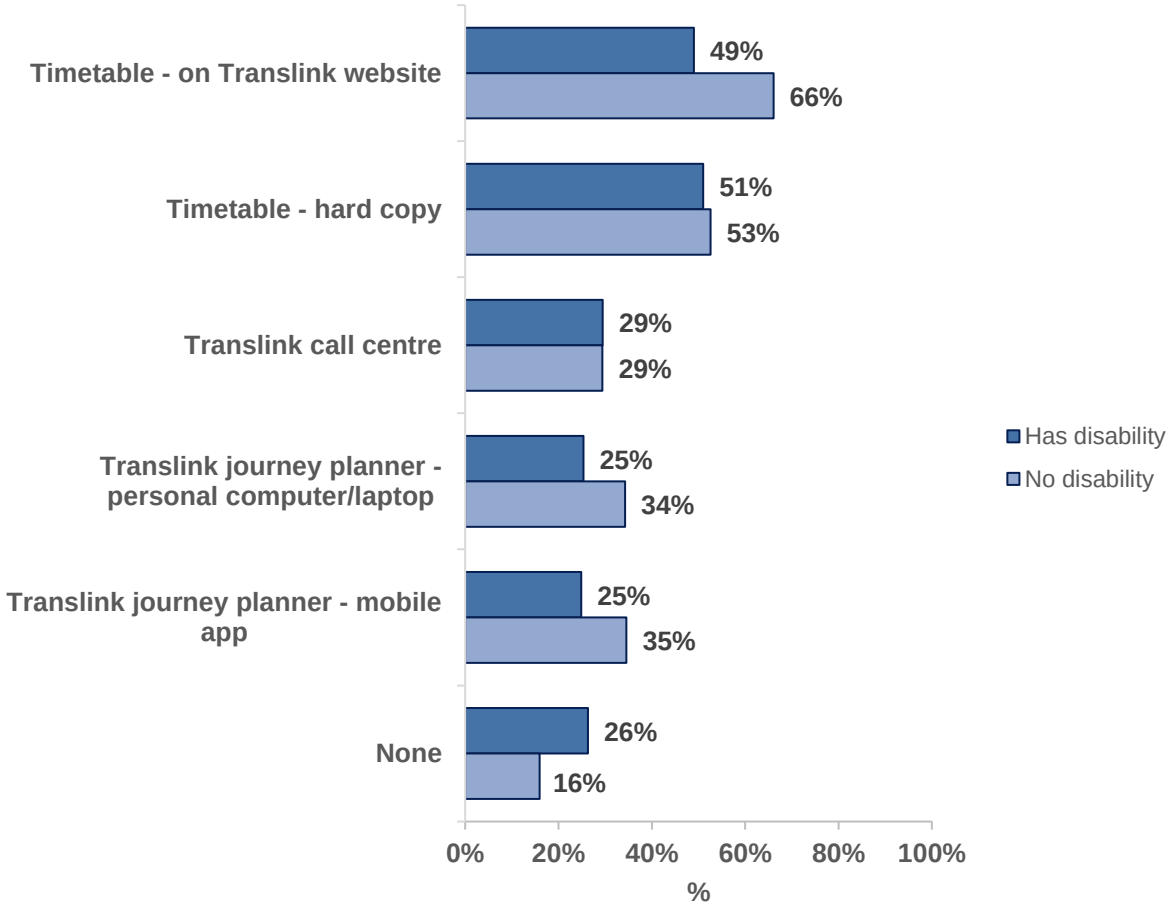
*Respondents were able to select more than one response. Therefore percentages sum to more than 100%

Almost a quarter (24%) of respondents aged 65 and over said they were not aware of any journey planning resources, which was higher than those aged 16-24 (11%).

Figure 3 presents the proportions of respondents who are aware of journey planning resources by disability status. Respondents who do not have a disability were more likely to be aware of the availability of timetables on the Translink website (66%), journey planner on a personal computer/laptop (34%), and the journey planner mobile app (35%) when compared to those respondents who have a disability (49%, 25%, and 25%, respectively).

Conversely, over a quarter (26%) of respondents who have a disability were aware of no journey planning resources compared with 16% of those with no disability.

Figure 3 - Awareness of journey planning resources by disability status: 2018/19*



*Respondents were able to select more than one response. Therefore percentages sum to more than 100%

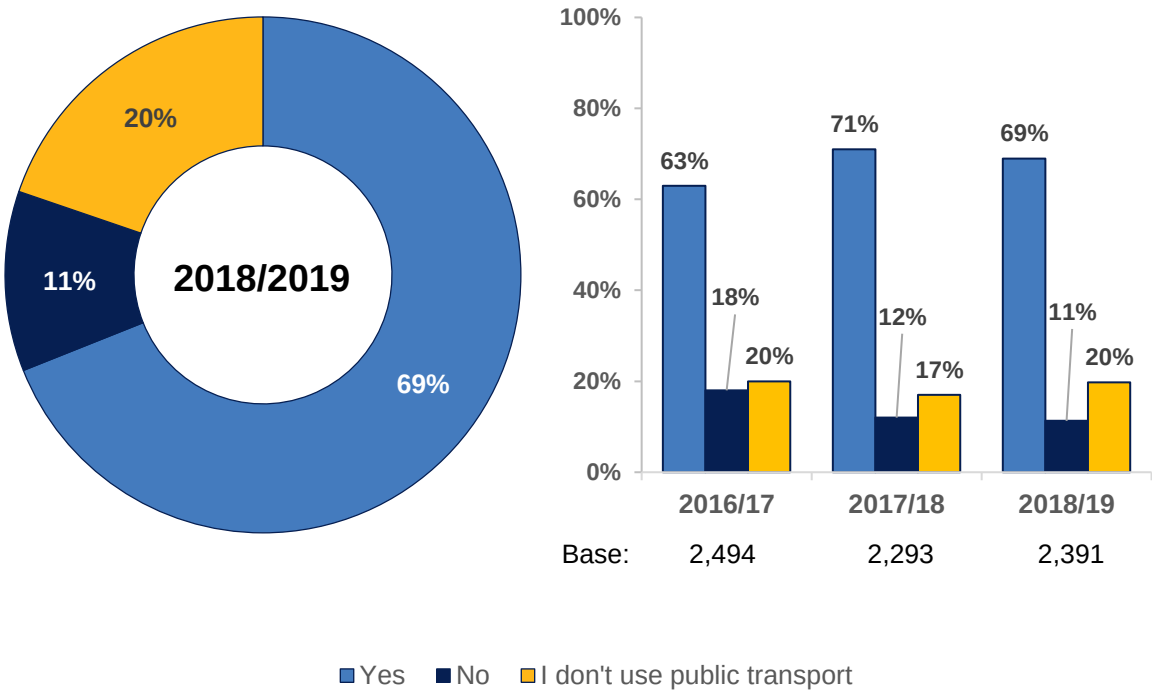
When considering responses by gender, awareness of journey planning resources is similar amongst male respondents and female respondents except in the case of having awareness of no resources when a higher proportion of male respondents had no awareness, 21%, compared with 17% of female respondents.

2. Use of Resources

2.1 Do you use any of these methods to plan any of your journeys by public transport?

Respondents were asked if they made use of any of the previously listed journey planning resources to plan their public transport journeys.

Figure 4 - Use of journey planning resources (% of respondents)



In 2018/19, almost 7 in ten respondents (69%) said they use the available journey planning resources which is similar to the proportion who said this in 2017/18 (71%). However, a greater proportion of respondents said they do not use public transport (20% in 2018/19) compared with 17% in 2017/18. It is important to note that this is similar to figures previously reported in 2016/17.

3. Planning a Journey

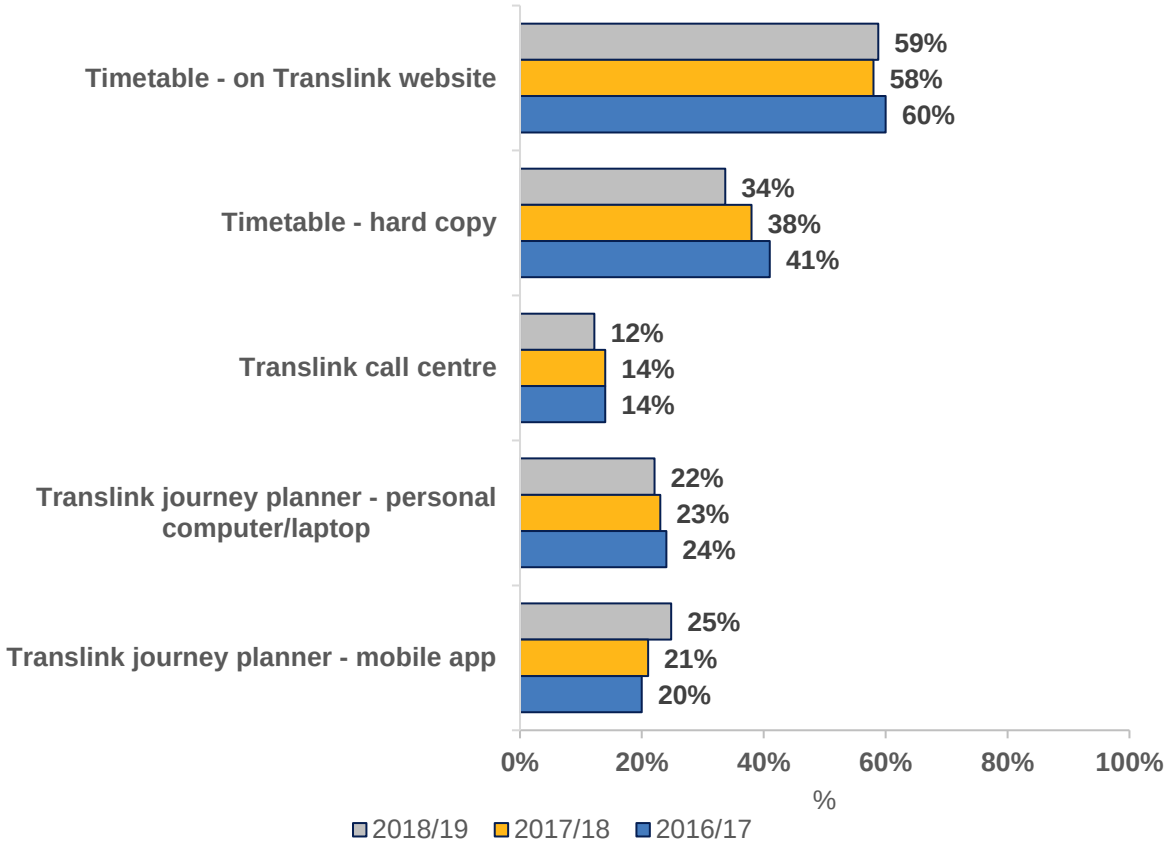
3.1 Which of these methods do you use to plan your journeys by public transport?

Respondents who stated they used journey planning resources were asked which methods they used to plan their journey (they could select more than one option).

Of the respondents who used journey planning resources, 59% used a timetable on the Translink website and 34% used a hard copy timetable. The least used resource was the Translink call centre (12%), with over a fifth (22%) using journey planner on a personal computer or laptop, and a quarter (25%) using journey planner mobile app.

Use of hard copy timetables has decreased since 2017/18 while use of journey planner mobile app has increased. Usage of other resources remains similar to previous years.

Figure 5 - Which of these methods do you use to plan your journeys by public transport?*



Base:	2,501	1,164	1,537

*Respondents were able to select more than one response. Therefore percentages sum to more than 100%

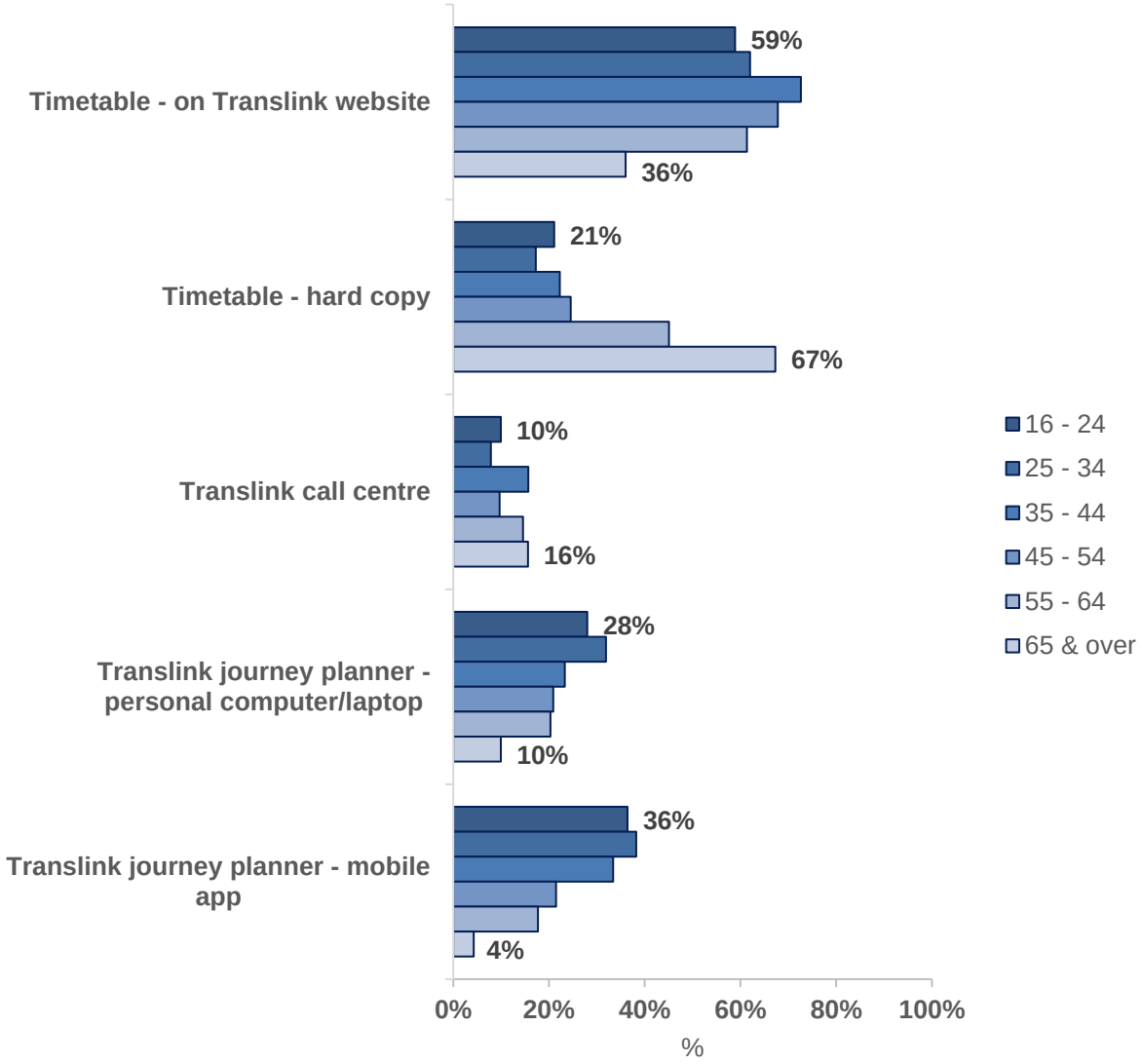
3.2 Differences in use of Journey Planning resources

Use of the range of journey planning resources varies across respondent group. Figure 6 shows that 59% of respondents aged 16-24 use timetables on the Translink website, compared to 36% of those aged 65 and over.

Those aged 16-24 were more likely to use the journey planner facility on a personal computer or laptop (28%), and the journey planner mobile app (36%) than those aged 65 and over (10% and 4%, respectively).

Conversely, those aged 65 and over were more likely to use hard copy timetables (67%) and the Translink call centre (16%) than those aged 16-24 (21% and 10%, respectively).

Figure 6 - Use of journey planning resources by age: 2018/19*

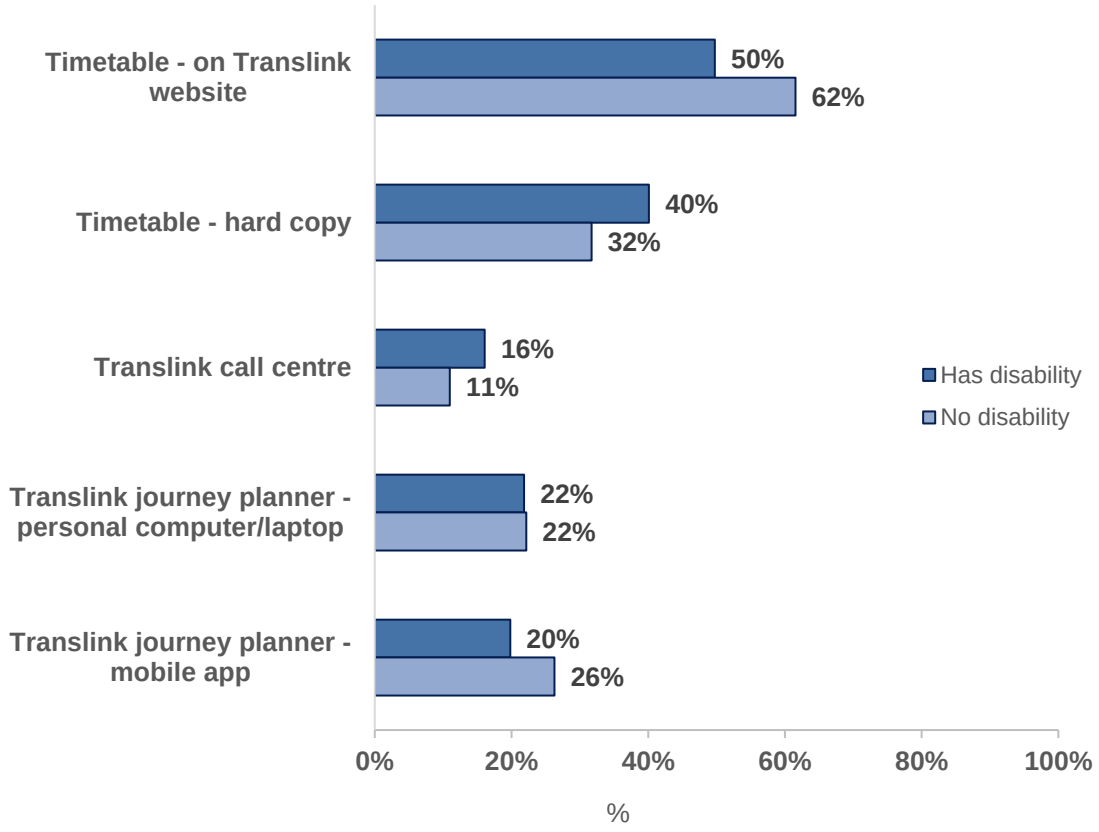


*Respondents were able to select more than one response. Therefore percentages sum to more than 100%

Figure 7 presents the proportions of respondents who use journey planning resources by disability status. Respondents who do not have a disability were more likely to use timetables on the Translink website (62%), journey planner on a personal computer/laptop (22%), and the journey planner mobile app (26%) when compared to those respondents who have a disability (50%, 22%, and 20%, respectively).

Conversely, two-fifths (40%) of respondents who have a disability used a hard copy timetable and 16% used Translink call centre compared with 32% and 11% of those with no disability.

Figure 7 - Awareness of journey planning resources by disability status: 2018/19*



*Respondents were able to select more than one response. Therefore percentages sum to more than 100%

When considering responses by gender, use of journey planning resources is similar amongst male respondents and female respondents except in the case of using Journey Planner on a personal computer/laptop and Journey Planner mobile app. A higher proportion of male respondents use Journey Planner on a personal computer/laptop (26%) and mobile app (27%), compared with female respondents (19% and 23%, respectively).

Appendix 1: Technical Notes

The Northern Ireland Continuous Household Survey

Data Collection

The information presented in this publication derives from the Northern Ireland Continuous Household Survey (CHS), a Northern Ireland wide household survey administered by Central Survey Unit (CSU), Northern Ireland Statistics and Research Agency (NISRA). It is based on a sample of the general population resident in private households and has been running since 1983. The survey is designed to provide a regular source of information on a wide range of social and economic issues relevant to Northern Ireland. The nature and aims of CHS are similar to those of the General Household Survey (GHS), which is carried out by the Office for National Statistics (ONS) in Great Britain. The Public Transport Journey Planning in Northern Ireland questions which were commissioned by DfI are included in Appendix 3 of this report.

Data Quality

Data were collected by CSU and various validation checks were carried out 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 NISRA, an Agency within the Department of Finance.

CSU 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.

The CHS sample was assessed and considered to be a representative sample of the Northern Ireland population at household level.

Whilst data quality is considered to be very good, 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 but care should be taken when looking at results based on smaller breakdowns.

Respondents

The 2018/19 CHS was based on a random sample of 9,000 domestic addresses drawn from the Land and Property Services list of addresses and interviews were sought with all adults aged 16 and over in these households. The dataset contains the records for 2,948 adults aged 16 and over and 2,926 adults provided a response to the initial question.

The number of respondents who answered each question, i.e. the base number, is stated in the commentary and/or the associated chart. The base number is the unweighted count.

Some questions were only asked if the respondent had answered ‘yes’ to a previous question. The base number may also vary between questions due to some respondents not answering certain questions.

Weighting

Analysis of the Public Transport Journey Planning in Northern Ireland module of the CHS has been weighted for non-response. A chi square goodness-of-fit test showed that the CHS sample was not representative of the population by age and sex when compared with the Population and Migration Estimates Northern Ireland 2015 (NISRA). As a result, three separate weights were produced for age, sex and age and sex combined. The combined weight is used for the analysis reported here.

Non-response weighting sometimes increases standard errors, although the impact tends to be fairly small, i.e. the adjustment may be less or greater than 1, but will generally be reasonably close to 1. In the case of the Public Transport Journey Planning in NI module of the CHS, the values of the adjustment is so close to one, it is not necessary to take account of this in the calculation of standard error and confidence intervals.

While weighting for non-response (also called post-stratification) should reduce bias, it must be acknowledged that it will not eliminate bias. The reasons individuals choose to take part in surveys are complex and depend on lots of factors specific to the individual. As a result, the non-response biases in surveys are likely to be complex. Post-stratification works on the assumption that, by aligning the survey to the population along a small number of dimensions such as age and gender, many of these complex biases will reduce. However, it would be misleading to suggest that they will be eliminated.

Confidence Intervals

No sample is likely to reflect precisely the characteristics of the population it is drawn from because of both sampling and non-sampling errors. An estimate of the amount of error due to the sampling process can be calculated. For a simple random sample design, in which every member of the sampled population has an equal and independent chance of inclusion in the sample, the sampling error of any percentage, p, can be calculated by the formula:

$$\text{s.e. } (p) = \sqrt{(p*(100 - p)/n)}$$

where n is the number of respondents on which the percentage is based. The sample for the Continuous Household Survey is drawn as a random sample, and thus this formula can be used to calculate the sampling error of any percentage estimate from the survey.

A 95% confidence interval for the population percentage can be calculated using the following formula. This means that if 100 similar, independent samples were chosen from the population, 95 of them would yield a percentage within this range of values.

$$95\% \text{ confidence interval} = p +/- 1.96 * \text{s.e. } (p)$$

Multiple Response Questions

Multiple response questions are those for which respondents can give more than one response if they wish. In such questions, when individual percentages are summed they may add to more than 100%.

Rounding Conventions

Percentages have been rounded to whole numbers and as a consequence some percentages may not sum to 100. 0% may reflect rounding down of values under 0.5.

Significant Difference

Any statements in this report regarding differences between groups such as males and females, different age groups, dependant status, etc., are statistically significant at the 95% confidence level. This means that we can be 95% confident that the differences between groups are actual differences and have not just arisen by chance. Both the base numbers and the sizes of the percentages have an effect on statistical significance. Therefore on occasion, a difference between two groups may be statistically significant while the same difference in percentage points between two other groups may not be statistically significant. The reason for this is because the larger the base numbers or the closer the percentages are to 0 or 100, the smaller the standard errors. This leads to increased precision of the estimates which increases the likelihood that the difference between the proportions is actually significant and did not just arise by chance.

Note that differences between LGDs have not been tested for significance.

Respondent Groups

The following respondent groups were considered:

Age group
The age of the respondent is grouped into the following age bands; 16-24, 25-34, 35-44, 45-54, 55-64, 65 and over.

Gender
Gender of respondent is defined as whether the respondent is male or female.

Disability status
Disability status is defined as whether or not the respondent has a disability. The definition of disability is those answering yes to both of the following questions:

'Do you have any physical or mental health conditions or illnesses lasting or expected to last for 12 months or more' - Yes/No

'Does your condition or illness/ (do any of your conditions or illnesses) reduce your ability to carry out day-to-day activities?' - Yes, a lot/ Yes, a little/ Not at all

District Council (LGD14)
Northern Ireland is divided into 11 district councils. Note that differences between LGDs have not been tested for significance.

Urban and rural areas
Urban and rural areas have been classified using the statistical classification of settlements defined by the Inter-Departmental Urban-Rural Definition Group.

- Bands A to E are classified as Urban. This includes Belfast Metropolitan Urban Area (Band A), Derry Urban Area (Band B) and large, medium and small towns (Bands C-E) with populations greater than or equal to 5,000 people.
- Bands F to H are classified as rural. This includes intermediate settlements (Band F), villages (Band G) and small villages, hamlets and open countryside (Band H) with populations of less than 5,000 people and including open countryside.

Appendix 2: Confidence Intervals

A confidence interval represents the range of values in which the true population value is likely to lie. It is based on the sample estimate and the confidence level. As the percentages are calculated from a representative sample of the Northern Ireland population (aged 16 and over), a confidence interval can be calculated to estimate the level of uncertainty in the sample estimate.
95% confidence intervals were calculated for the headline figures. Table B1 summarizes the confidence intervals for Public Journey Planning in Northern Ireland.

Table B1: Confidence Intervals for Public Transport Journey Planning in Northern Ireland

	Estimate (%)	**Sample (n)**	**95% Confidence Range +/-**	**Confidence Interval**
% of respondents who are aware of timetables (hard copy)	52	2,926	2	50 – 54
% of respondents who use some form of journey planning resource	69	2,391	2	67 – 71
% of respondents who make use of timetables (hard copy)	34	2,501	2	32 – 36

- The 95% confidence interval for respondents who are aware of timetables (hard copy) is 52% +/- 2%. This means that there is a 95% probability that the proportion of the Northern Ireland adult population who are aware of hard copies of timetables lies between 50% and 54%.

- The 95% confidence interval for respondents who use some form of journey planning resource is 69% +/- 2%. This means that there is a 95% probability that the proportion of the Northern Ireland adult population who use some form of journey planning resource lies between 67% and 71%.

- The 95% confidence interval for respondents who make use of timetables (hard copy) is 34% +/- 2%. This means that there is a 95% probability that the proportion of the Northern Ireland adult population who use hard copies of timetables lies between 32% and 36%.

Appendix 3: Public Transport Journey Planning in Northern Ireland Questionnaire

PUBLIC TRANSPORT JOURNEY PLANNING

[TLINK1] SHOWCARD (Journey planner aware)
I am now going to ask a few questions about public transport. Which of the following methods that can be used to plan journeys by public transport are you aware of?
1. Timetable - hard copy -> [TLINK2]
2. Timetable - on Translink website -> [TLINK2]
3. Translink call centre -> [TLINK2]
4. Translink journey planner - personal computer/laptop -> [TLINK2]
5. Translink journey planner - mobile app -> [TLINK2]
6. None -> [INTROB]

[TLINK2] SHOWCARD (Plan your journey)
Do you use any of these methods to plan any of your journeys by public transport?
1. Yes -> [TLINK3]
2. No -> [INTROB]
3. I don't use public transport -> [INTROB]

[TLINK3] SHOWCARD (Plan your journey)
Which of these methods do you use to plan your journeys by public transport?
1. Timetable - hard copy
2. Timetable - on Translink website
3. Translink call centre
4. Translink journey planner - personal computer/laptop
5. Translink journey planner - mobile app
6. Other -> [TLINK3oth]
[TLINK3oth] Please specify the other method

[TLINK4] IF MORE THAN ONE OPTION SELECTED AT TLINK3 SHOWCARD (Plan your journey)
And which one of these methods do you use most often?
1. Timetable - hard copy
2. Timetable - on Translink website
3. Translink call centre
4. Translink journey planner - personal computer/laptop
5. Translink journey planner - mobile app
6. Other -> [TLINK4oth]
[TLINK4oth] Please specify the other method