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Cycling and Walking to/ from Work in Northern Ireland 2014/15

Findings from the Continuous Household Survey 2014/15

Northern Ireland Statistics & Research Agency

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Cycling and Walking to/ from Work in Northern Ireland 2014/15

About this report

This report presents data from the 2014/15 Continuous Household Survey (CHS) in relation to cycling and walking to/ from work. This was the first year that this question set was included in the CHS and this is the first such report produced by the Central Statistics and Research Branch (CSRB) in the Department for Regional Development (DRD).

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Introduction

Travelwise NI[1] is the Department for Regional Development's (DRD) initiative to encourage people to choose sustainable transport options such as walking, cycling, public transport or car sharing. Travelwise NI is an integral part of DRD's Transport Policy, Strategy and Legislation Division and delivers its programmes in partnership with TransportNI, the Department of Education, the Department of the Environment Road Safety Branch, Sustrans, the Public Health Agency and Translink.

Travelwise NI aims to work with three main sectors namely schools, the workplace and commuters. With regards to the workplace and commuters, Travelwise NI provides support to organisations by devising Workplace Travel Plans which explore alternative and sustainable travel options for accessing the workplace for members of the workforce. Travelwise NI also encourages employers to participate in Travel to Work Initiatives. Participative sustainable events such as Bike Week are promoted to raise the awareness levels of sustainable travel options and to enable interested groups to begin the process of modal shift by participating in events of this type.

Alternative transport options to driving for those persons making a daily journey to and from work include:

- **Cycling** - It is a great way to keep fit, get about quickly and cheaply and beat the traffic. In addition, bike parking is simpler than ever with the number of cycle hoops available as well as dedicated cycle parking.
- **Walking** - It costs nothing, has no carbon emissions, can help improve fitness and health and does not involve any worry about parking.

DRD commissioned questions in the Continuous Household Survey 2014/15 to ascertain the extent of cycling and walking to/ from work by persons in Northern Ireland. This was the first time this question set was asked and the findings are reported in this publication. Statistics are presented on the proportion of people who normally cycle or walk to/ from work, the distance they cycle or walk to/ from work and the number of days they cycle or walk per week. The information will be used to monitor the effectiveness of the Travelwise NI initiatives that are aimed at increasing the proportion of commuters who travel actively to work.

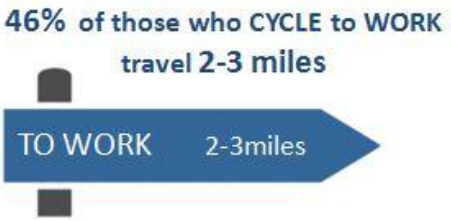
[1] Information on Travelwise NI is available at www.nidirect.gov.uk/travelwiseni

Key Points

Cycling to/ from Work

- Of the 1,662 respondents who travel to work, one in fifty (2%) said they normally cycle to work AND from work, a small percentage (0.1%) said they normally cycle to work OR from work and the majority (98%) said they do not cycle to or from work.

- Of the 37 respondents who reported that they normally cycle to work AND from work, almost half (46%) cycle 2-3 miles, on average, in one direction. Over a fifth (22%) cycle 6 miles or more, just under a fifth (19%) cycle 4-5 miles and one in seven (14%) cycle 1 mile or less in one direction.



- The majority (97%) of respondents who normally cycle to work AND from work reported that they cycle all the way and one in thirty (3%) reported that they cycle part of the way.

- Just under half (49%) of respondents who reported that they normally cycle to work AND from work said they cycle 5 days per week on average. Just under a quarter (24%) said they cycle 3 days per week, approximately one in six (16%) said they cycle 2 days per week and one in twenty (5%) said 4 days per week and 1 day per week.

Walking to/ from Work

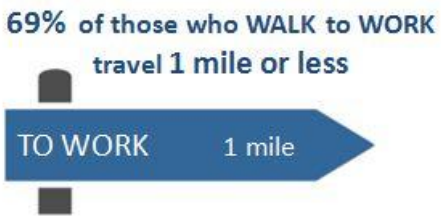
- Of the 1,652 respondents who travel to work, a tenth (10%) said they normally walk to work AND from work, a small percentage (1%) said they normally walk to work OR from work and the majority (89%) said they do not walk to or from work.

- Respondents aged 16-24 (20%) and 25-34 (15%) were more likely to normally walk to work AND/ OR from work than those aged 35-49 (9%) and 50-64 (9%).

- Female respondents (14%) were more likely to normally walk to work AND/ OR from work than male respondents (8%).

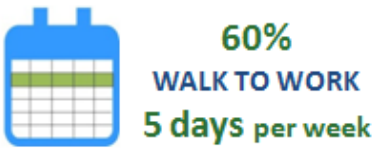
- Respondents from urban areas (15%) were more likely to normally walk to work AND/ OR from work than those from rural areas (4%).

- Of the 185 respondents who reported that they normally walk to work AND/ OR from work, over two thirds (69%) walk 1 mile or less, on average, in one direction. Over a quarter (27%) walk 2-3 miles, approximately one in thirty (3%) walk 4-5 miles and a small percentage (1%) walk 6 miles or more in one direction.



- The majority (93%) of respondents who normally walk to work AND/ OR from work reported that they walk all the way and one in fourteen (7%) reported that they walk part of the way.

- Almost two thirds (60%) of respondents who reported that they normally walk to work AND/ OR from work said they walk 5 days per week on average. One in seven (14%) said they walk 3 days per week, one in eleven (9%) said they walk 2 days per week and one in twelve (8%) said 4 days per week. Less than one in twenty said they walk 1 day per week, 6 days per week and 7 days per week (4%, 3% and 2% respectively).

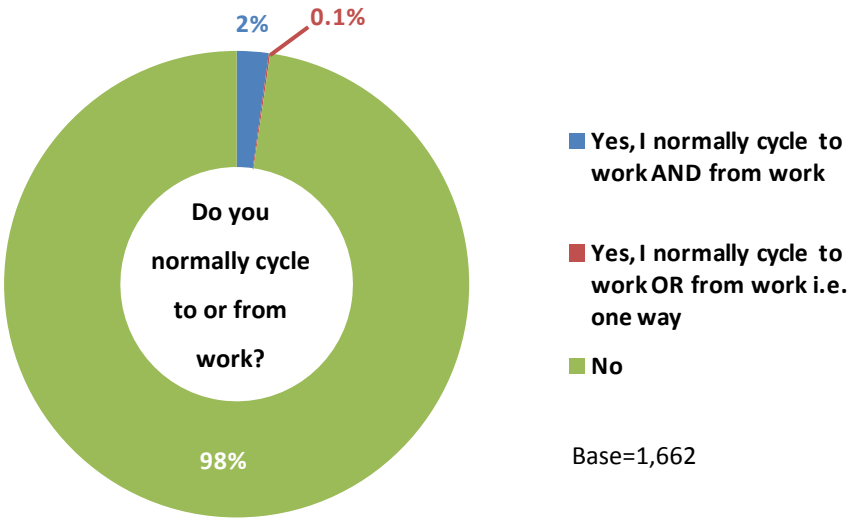


Cycling to/ from Work

1.1 Persons who Cycle to/ from Work

Respondents were asked if they normally cycle to or from work. Of the 1,778 persons who provided information, 116 (7%) said they work from home. Of the remaining 1,662 who travel to work, one in fifty (2%) said they normally cycle to work AND from work, a small percentage (0.1%) said they normally cycle to work OR from work and the majority (98%) said they do not cycle to or from work (see Figure 1 below).

Figure 1: Persons who cycle to/ from work



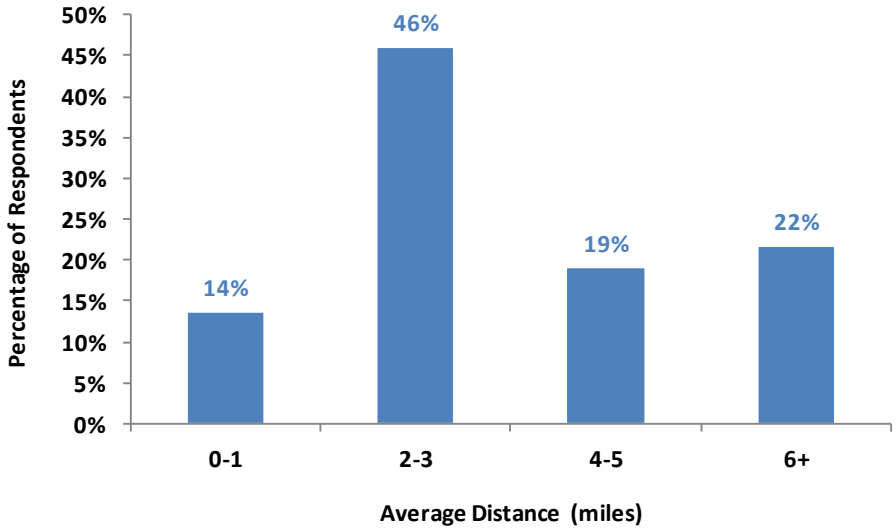
The number of respondents who indicated that they cycle to work AND/ OR from work is too small to allow any further meaningful analysis.

Accordingly, only overall frequencies have been reported for subsequent questions on cycling to/ from work.

1.2 Distance Cycled to/ from Work

Of the 37 respondents who reported that they normally cycle to work AND from work, almost half (46%) cycle 2-3 miles, on average, in one direction. Over a fifth (22%) cycle 6 miles or more, just under a fifth (19%) cycle 4-5 miles and one in seven (14%) cycle 1 mile or less in one direction (see Figure 2 overleaf).

Figure 2: Average distance cycled to/ from work in one direction

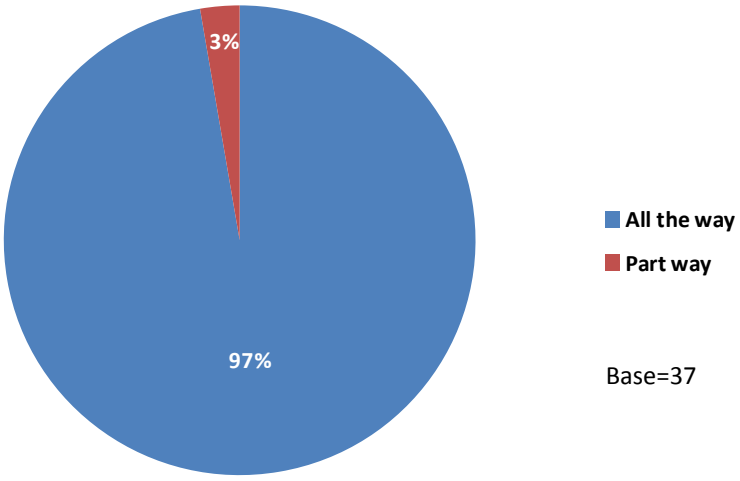


Base=37

1.3 Portion of Journey Cycled to Work

The majority (97%) of respondents who normally cycle to work AND from work reported that they cycle all the way and one in thirty (3%) reported that they cycle part of the way (see Figure 3 below).

Figure 3: Portion of journey cycled to work

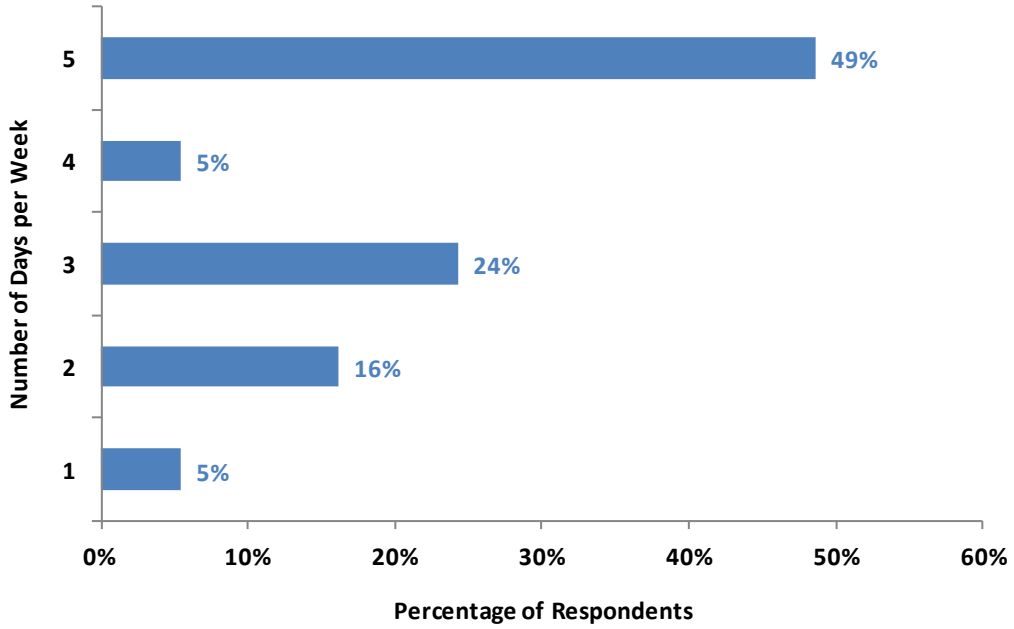


Base=37

1.4 Number of Days per Week Cycled to/ from Work

Just under half (49%) of respondents who reported that they normally cycle to work AND from work said they cycle 5 days per week on average. Just under a quarter (24%) said they cycle 3 days per week, approximately one in six (16%) said they cycle 2 days per week and one in twenty (5%) said 4 days per week and 1 day per week (see Figure 4 below).

Figure 4: Average number of days per week cycled to/ from work



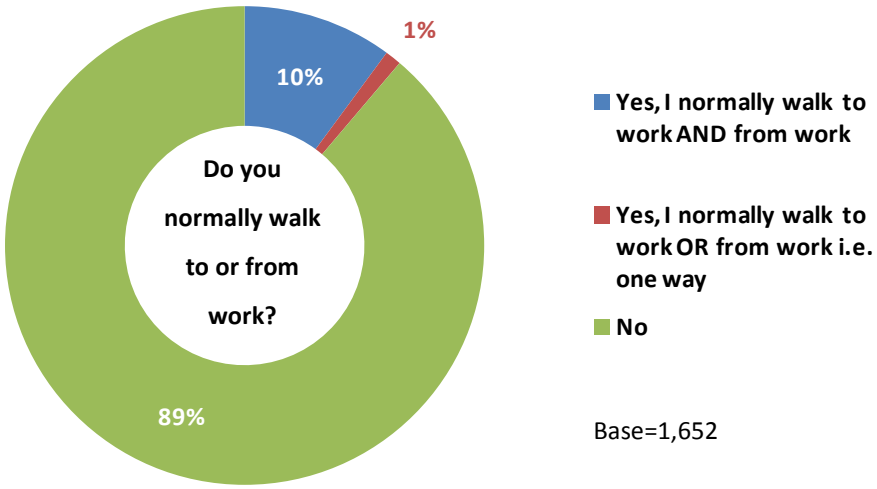
Base=37

2. Walking to/ from Work

2.1 Persons who Walk to/ from Work

Respondents were asked if they normally walk to or from work. Of the 1,661 persons who provided information, 9 (0.5%) said they work from home. Of the remaining 1,652 who travel to work, a tenth (10%) said they normally walk to work AND from work, a small percentage (1%) said they normally walk to work OR from work and the majority (89%) said they do not walk to or from work (see Figure 5 below).

Figure 5: Persons who walk to/ from work



Respondents aged 16-24 (20%) and 25-34 (15%) were more likely to normally walk to work AND/ OR from work than those aged 35-49 (9%) and 50-64 (9%). Conversely, respondents aged 35-49 (91%) and 50-64 (91%) were more likely to not walk to or from work than those aged 16-24 (80%) and 25-34 (85%).

Female respondents (14%) were more likely to normally walk to work AND/ OR from work than male respondents (8%). Conversely, male respondents (92%) were more likely than female respondents (86%) to not walk to or from work.

Respondents without dependants (13%) were more likely to normally walk to work AND/ OR from work than those with dependants (9%). Conversely, respondents with

dependants (91%) were more likely than those without dependants (87%) to not walk to or from work.

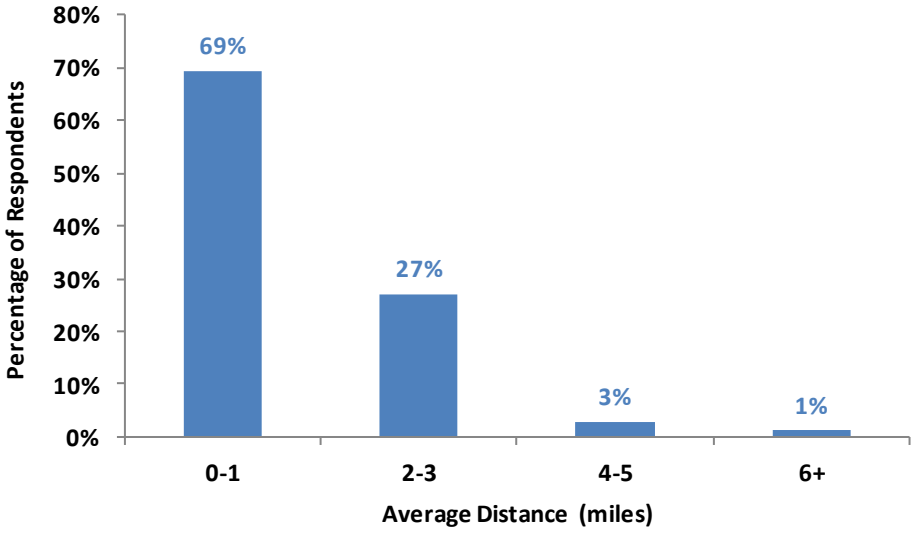
Respondents from urban areas (15%) were more likely to normally walk to work AND/ OR from work than those from rural areas (4%). Conversely, respondents from rural areas (96%) were more likely than respondents from urban areas (85%) to not walk to or from work.

Respondents with no qualifications (17%) and those with 'all other qualifications' (13%) were more likely to walk to work AND/ OR from work than those educated to degree level or higher (8%). Conversely, respondents educated to degree level or higher (92%) were more likely than those with 'all other qualifications' (87%) and those with no qualifications (83%) to not walk to or from work.

2.2 Distance Walked to/ from Work

Of the 185 respondents who reported that they normally walk to work AND/ OR from work, over two thirds (69%) walk 1 mile or less, on average, in one direction. Over a quarter (27%) walk 2-3 miles, approximately one in thirty (3%) walk 4-5 miles and a small percentage (1%) walk 6 miles or more in one direction (see Figure 6 below).

Figure 6: Average distance walked to/ from work in one direction



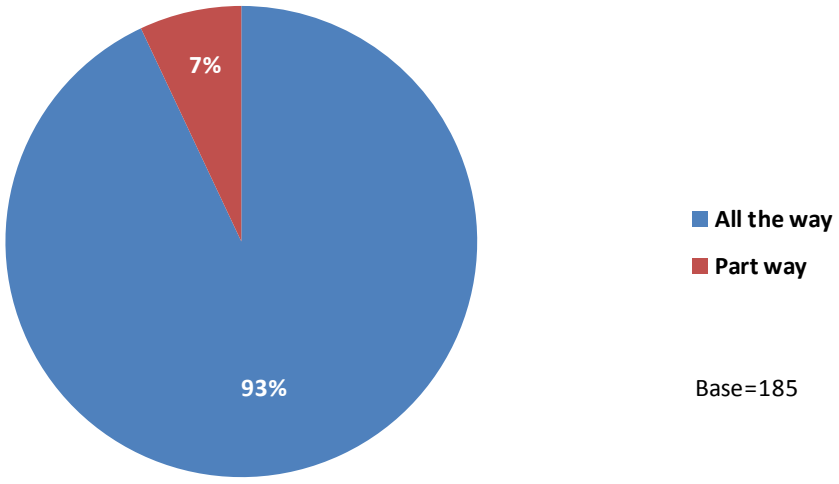
Base=185

The number of respondents who indicated that they walk to work AND/ OR from work is too small to allow any further meaningful analysis on the average distance walked to/ from work.

2.3 Portion of Journey Walked to Work

The majority (93%) of respondents who normally walk to work AND/ OR from work reported that they walk all the way and one in fourteen (7%) reported that they walk part of the way (see Figure 7 below).

Figure 7: Portion of journey walked to work

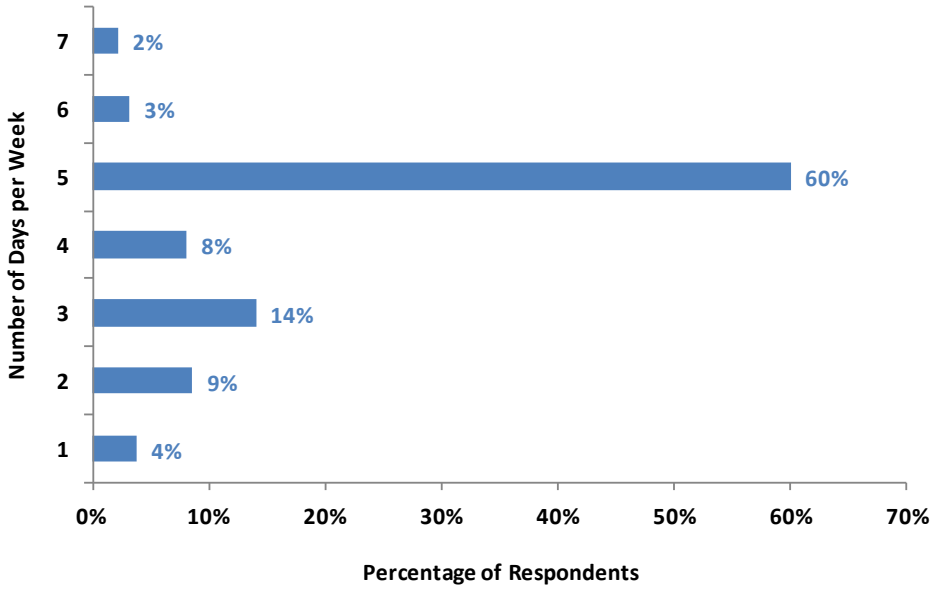


The number of respondents who indicated that they walk to work AND/ OR from work is too small to allow any further meaningful analysis on the portion of journey walked to work.

2.4 Number of Days per Week Walked to/ from Work

Almost two thirds (60%) of respondents who reported that they normally walk to work AND/ OR from work said they walk 5 days per week on average. One in seven (14%) said they walk 3 days per week, one in eleven (9%) said they walk 2 days per week and one in twelve (8%) said 4 days per week. Less than one in twenty said they walk 1 day per week, 6 days per week and 7 days per week (4%, 3% and 2% respectively) (see Figure 8 overleaf).

Figure 8: Average number of days per week walked to/ from work



Base=185

The number of respondents who indicated that they walk to work AND/ OR from work is too small to allow any further meaningful analysis on the average number of days per week walked to/ from work.

Appendix A: Technical Notes

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 the Central Survey Unit (CSU) of the 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 the 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.

DRD commissioned questions related to cycling and walking to/ from work for the first time in the 2014/15 CHS. These questions are presented in Appendix C on page 17 of this publication.

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 and Personnel. 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 Official Statistics Code of Practice[2].

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 (see notes on sampling error on page 14). 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.

[2] http://www.statisticsauthority.gov.uk/assessment/code-of-practice/code-of-practice-for-official-statistics.pdf

Respondents

The 2014/15 CHS was based on a random sample of 4,500 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 3,349 adults aged 16 and over. Those persons that were classified as being in employment, i.e. those that did paid work in the last week, or on a government-supported training scheme, or away from a job/ business, or unpaid work for own or family business, were asked the questions relating to cycling and walking to/ from work, a total of 1,780 adults. 1,778 adults provided an answer 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.

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

Significance tests were carried out to determine if there were differences in responses given by various respondent groups. The significance tests were carried out at 5% significance level (range = -1.96 to +1.96) and only differences which were statistically significant ($p < 0.05$) are included in this report. This means that there is at least a 95% probability that there is a genuine difference between responses given by, for example, males and females and the difference between the two genders cannot simply be explained by random chance or sample error. When a significant difference is noted among survey respondents, it is likely that this same difference applies to the Northern Ireland adult population (persons aged 16 and over).

The following respondent groups were considered:

Age group

The age of the respondent is grouped into the following age bands; 16-24, 25-34, 35-49, 50-64, 65 and over.

Gender

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

Disability status

The questions used to ascertain whether or not a person has a disability are harmonised with the definition of disability in the Equality Act 2010. This states that a disabled population is classified on the basis of having a long-lasting physical or mental health condition or illness which restricts day-to-day activities. The disabled population in this report are those who have answered 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

Dependant status

Dependant status is defined as whether the respondent has dependants or not.

Economic activity

Economic activity is defined as whether the respondent is currently economically active or not. This is automatically computed from other answers given. Those individuals who are temporarily away from work and those who are on a government training scheme are included as being in economically active. Full-time students are excluded from these figures.

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 ranging from 4,500 to under 75,000.

- 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 ranging from less than 1,000 to under 4,500 and including open countryside.

Highest educational qualification

Highest educational qualification was determined by asking respondents to select from a list of recognised qualifications the highest that they had attainted or the nearest equivalent. These responses were then collated into the following broad classificatory groups:

- No qualifications
- Degree level or higher: This includes first degrees, higher degrees, post-graduate diplomas and certificates etc.
- All other qualifications: These include all other commonly recognised qualifications below degree level e.g. A levels, GCSE/O level grade A*-C, trade apprenticeships, other vocational or professional or foreign qualifications etc.

Sampling error

No sample is likely to precisely mirror the characteristics of the population it is drawn from due to 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, the sampling error (s.e.) of any percentage, p, can be calculated by the formula:

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

where n is the number of respondents on which the percentage is based.

Confidence Interval

A 95% confidence interval for the population percentage can be calculated using the formula:

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

This means that if 100 similar, independent samples were chosen from the same population, 95 of them would yield an estimate for the percentage, p, within this range of values.

The absence of design effects in the survey means that standard statistical tests of significance can be applied directly to the data. 95% confidence intervals were calculated for the headline figures as detailed in Appendix B on page 16.

Uses of the data

Travelwise NI remains committed to the raising of awareness of the general public in Northern Ireland of the sustainable alternatives to the private car, particularly for shorter journeys. Travelwise NI is particularly interested in identifying how, and to what extent, targeted sustainable initiatives across all sectors have contributed to this. The thrust of the Travelwise NI marketing campaigns are directed towards addressing the barriers to walking and cycling, for shorter journeys in particular, and seeking to validate the impact of specific sustainable initiatives which are developed for the purposes of securing greater percentages of modal shift towards more sustainable alternatives to car travel.

Appendix B: 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 below summarizes the confidence intervals for the number of persons who normally cycle/ walk to work AND from work.

Table B1: Confidence intervals for persons who normally cycle/ walk to work AND from work

	Estimate	95% Confidence Range +/-	Confidence Interval
Yes, I normally cycle to work AND from work	2%	1	1% - 3%
Yes, I normally walk to work AND from work i.e. one way	10%	1	9% - 11%

- 2% of respondents reported that they normally cycle to work AND from work. Calculating a 95% confidence interval from the results of the survey, it can be estimated that between 1% and 3% of the Northern Ireland adult population cycle to work AND from work.

- 10% of respondents reported that they normally walk to work AND from work. Calculating a 95% confidence interval from the results of the survey, it can be estimated that between 9% and 11% of the Northern Ireland adult population walk to work AND from work.

Appendix C: Questionnaire

CYCLE TO WORK

[CYCLE1] Do you normally cycle to or from work?

1. Yes, I normally cycle to work AND from work -> [CYCLE2]
2. Yes, I normally cycle to work OR from work i.e. one way -> [CYCLE2]
3. No -> [WALK1]
4. Works from home -> [END]

[CYCLE2] On average, how far, in miles do you cycle to/ from work in one direction?

[CYCLE3] And would that be cycling all the way to work or just part of the way?

1. All the way
2. Part of the way

[CYCLE4] On average, how many days per week do you cycle to/ from work?

WALK TO WORK

[WALK1] Do you normally walk to or from work?

1. Yes, I normally walk to work AND from work -> [WALK2]
2. Yes, I normally walk to work OR from work i.e. one way -> [WALK2]
3. No -> [END]
4. Works from home -> [END]

[WALK2] On average, how far, in miles do you walk to/ from work in one direction?

[WALK3] And would that be walking all the way to work or just part of the way?

1. All the way
2. Part of the way

[WALK4] On average, how many days per week do you walk to/ from work?

Appendix D: Data Tables

Table D1a: Do you normally cycle to or from work?

Response	Percentage of Respondents
Yes, I normally cycle to work AND from work	2
Yes, I normally cycle to work OR from work i.e. one way	0
No	91
Works from home	7
Base number	**1,778**

Table D1b: Do you normally cycle to or from work? (excluding 'Works from home')

Response	Percentage of Respondents
Yes, I normally cycle to work AND from work	2
Yes, I normally cycle to work OR from work i.e. one way	0
No	98
Base number	**1,662**

Table D1c: Do you normally cycle to or from work? (excluding 'Works from home') by respondent characteristic

Response	All Respondents	Age Group					Gender		Disability Status		Dependant Status		Economic Activity	Urban and Rural Areas		Highest Educational Qualification		
		16-24	25-34	35-49	50-64	65 and over	Male	Female	Has Disability	No Disability	Has Dependants	No Dependants	Economically Active	Urban	Rural	No Quals	Degree Level or Higher	All Other Quals
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Yes, I normally cycle to work AND from work	2	3	2	3	1	[2]	4	1	2	2	3	2	2	3	0	1	2	3
Yes, I normally cycle to work OR from work i.e. one way	0	0	0	0	0	[1]	0	0	0	0	0	0	0	0	0	0	0	0
No	98	97	98	97	99	[60]	96	99	98	98	97	98	98	97	100	99	98	97
Base number	1,662	148	388	590	473	63	759	903	209	1,448	793	869	1,662	1,103	559	132	606	890

Table D2a: On average, how far, in miles do you cycle to/ from work in one direction?

Response	Percentage of Respondents
1 mile	14
2 miles	19
3 miles	27
4 miles	14
5 miles	5
6 miles	3
7 miles	3
8 miles	3
9 miles	5
10 miles	3
12 miles	3
30 miles	3
Base number	**37**

Table D2b: On average, how far, in miles do you cycle to/ from work in one direction?

Response	Percentage of Respondents
0-1 mile	14
2-3 miles	46
4-5 miles	19
6+ miles	22
Base number	**37**

Table D3: And would that be cycling all the way to work or just part of the way?

Response	Percentage of Respondents
All the way	97
Part of the way	3
Base number	**37**

Table D4: On average, how many days per week do you cycle to/ from work?

Response	Percentage of Respondents
1 day	5
2 days	16
3 days	24
4 days	5
5 days	49
Base number	**37**

Table D5a: Do you normally walk to or from work?

Response	Percentage of Respondents
Yes, I normally walk to work AND from work	10
Yes, I normally walk to work OR from work	1
No	88
Works from home	1
Base number	**1,661**

Table D5b: Do you normally walk to or from work? (excluding 'Works from home')

Response	Percentage of Respondents
Yes, I normally walk to work AND from work	10
Yes, I normally walk to work OR from work	1
No	89
Base number	**1,652**

Table D5c: Do you normally walk to or from work? (excluding 'Works from home') by respondent characteristic

Response	All Respondents	Age Group					Gender		Disability Status		Dependant Status		Economic Activity	Urban and Rural Areas		Highest Educational Qualification		
		16-24	25-34	35-49	50-64	65 and over	Male	Female	Has Disability	No Disability	Has Dependants	No Dependants	Economically Active	Urban	Rural	No Quals	Degree Level or Higher	All Other Quals
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Yes, I normally walk to work AND from work	10	20	13	8	9	[3]	7	13	12	10	12	8	10	13	4	17	7	12
Yes, I normally walk to work OR from work i.e. one way	1	1	2	1	1	[0]	1	1	0	1	1	1	1	2	0	0	1	1
No	89	80	85	91	91	[58]	92	86	88	89	87	91	89	85	96	83	92	87
Base number	1,652	148	386	587	470	61	753	899	209	1,438	789	863	1,652	1,100	552	129	604	886

Table D6a: On average, how far, in miles do you walk to/ from work in one direction?

Response	Percentage of Respondents
Less than 1 mile	14
1 mile	56
2 miles	15
3 miles	12
4 miles	2
5 miles	1
6 miles	1
Base number	**185**

Table D6b: On average, how far, in miles do you walk to/ from work in one direction?

Response	Percentage of Respondents
0-1 mile	69
2-3 miles	27
4-5 miles	3
6+ miles	1
Base number	**185**

Table D7: And would that be walking all the way to work or just part of the way?

Response	Percentage of Respondents
All the way	93
Part of the way	7
Base number	**185**

Table D8: On average, how many days per week do you walk to/ from work?

Response	Percentage of Respondents
1 day	4
2 days	9
3 days	14
4 days	8
5 days	60
6 days	3
7 days	2
Base number	**185**

Source of all Data Tables: Continuous Household Survey 2014/15