Travel to and from school by pupils in Northern Ireland 2018/2019

Findings from the Northern Ireland Continuous Household Survey 2018/2019

PHOTO REDACTED DUE TO THIRD PARTY RIGHTS OR OTHER LEGAL ISSUES

CONTENTS

Travel to and from school by pupils in Northern Ireland 2018/2019

Main mode of travel by distance from school

54% of primary school pupils who lived between 0-1 miles from their school travelled by car.

46% of post-primary school pupils who lived between 0-3 miles from their school travelled by car.

Main mode of travel

Primary School   **Post-Primary School**

22%		14%
1%		0%
67%		35%
9%		48%

Distance to School

Primary School		Post-Primary School
50%	0-1 miles	19%
29%	2-3 miles	27%
21%	4+ miles	53%

Walking to and from school

27% of primary school pupils spent 10 minutes or less walking to and from school

Around 3/5 of primary school pupils who walk to and from school, do so everyday

INTRODUCTION

How we travel has a really important impact upon our physical and mental health and wellbeing – whether through social exclusion, poor air quality or the fact that we are not active enough. Hence, the draft Programme for Government reference to increasing the percentage of journeys that are made by walking, cycling and public transport is part of delivering on a range of the outcomes – including health, infrastructure and the environment. By increasing activity and reducing reliance on the private car, walking and cycling will contribute to sustainability, provide children with a better and healthier start in life, cultivate better active travel habits, improve air quality and contribute to longer healthier lives.

The Department for Infrastructure (DfI) has responsibility for the development of sustainable travel throughout Northern Ireland and there is significant potential to increase the number of children walking or cycling to school. We want to create safer conditions that allow children to replace the daily school run by an active and sustainable method of travel where possible.

DfI support various initiatives that help support parents, teachers and children to make a healthier choice for their mode of travel to school, such as the Active School Travel Programme, Walk/Cycle to School week (usually late May each year).

Uses of the data

This report provides annual statistics on the main method of travel to/from school and, in particular, on the proportion of primary school and post primary school pupils who walk and cycle to school. This information will be used to monitor the overall effect of the initiatives that are aimed at increasing the proportion of children who travel actively to school.

As the data presented in this report are calculated from a representative sample of the Northern Ireland population, confidence intervals must be calculated to estimate the level of uncertainty in the sample estimate. These confidence intervals can be found in Appendix 3 on Page 21.

1. MODES OF TRAVEL TO AND FROM SCHOOL

Respondents to the Northern Ireland Continuous Household Survey (CHS) are asked if children in the household attended primary school or post primary school. Parents[1] were then asked a set of questions on behalf of their children. Of the 1,007 children whose parents were surveyed, 543 children attended primary school, 464 attended post-primary school. The results of these questions are presented in this report.

Respondents were asked to indicate **all** modes of travel their children normally used to travel to and from school (respondents could select more than one option).

a. Primary School

Figure 1: All modes of travel to/from primary school (%)

| Base: | 642 | 622 | 564 | 583 | 486 | 541 |
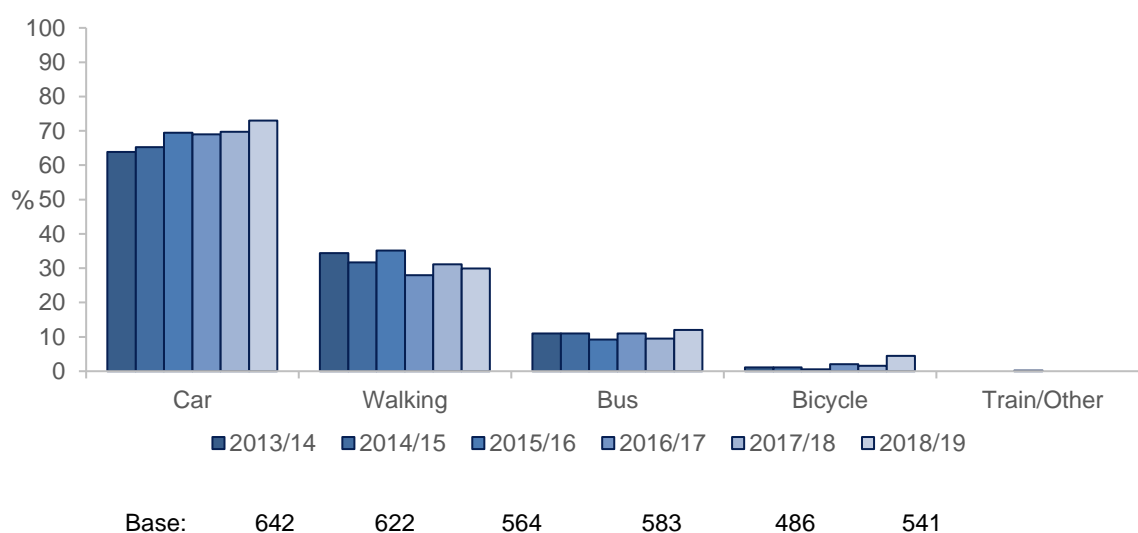
*percentages may sum to more than 100 due to multiple responses

Amongst primary school pupils, almost three quarters (73%) were driven to/from school by car[2]. Three in ten (30%) walked all or part of the way to/from school, 12% took a bus, and 4% cycled all or part of the way.

Urban/Rural

In 2018/19, a higher proportion of primary school pupils living in rural areas (83%) travelled to/from school by car than those living in urban areas (66%). Similarly, a higher proportion of those living in rural areas (17%) took the bus to/from school, compared to urban areas (9%). Those living in urban areas (40%) were more likely to walk than those living in rural areas (17%).

---

[1] Throughout the report 'parent' is used to refer to parent, guardian or caregiver.
[2] Throughout the report 'car' is used to refer to travel by car, van or taxi.

b. Post-Primary School

Figure 2: All modes of travel to/from post-primary school (%)
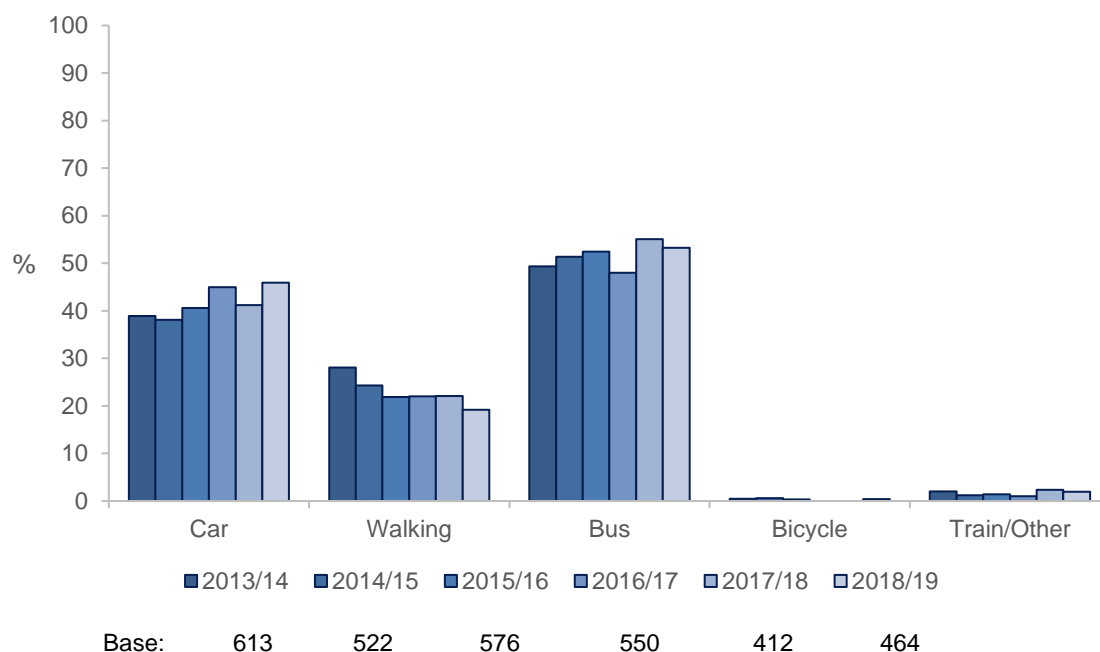
*percentages may sum to more than 100 due to multiple responses

In 2018/19, over half (53%) of post-primary school pupils used the bus to travel to and from school, a similar proportion to 2017/18 (55%). Almost half (46%) travelled by car, and 19% walked all or part of the way to or from school.

Urban/Rural
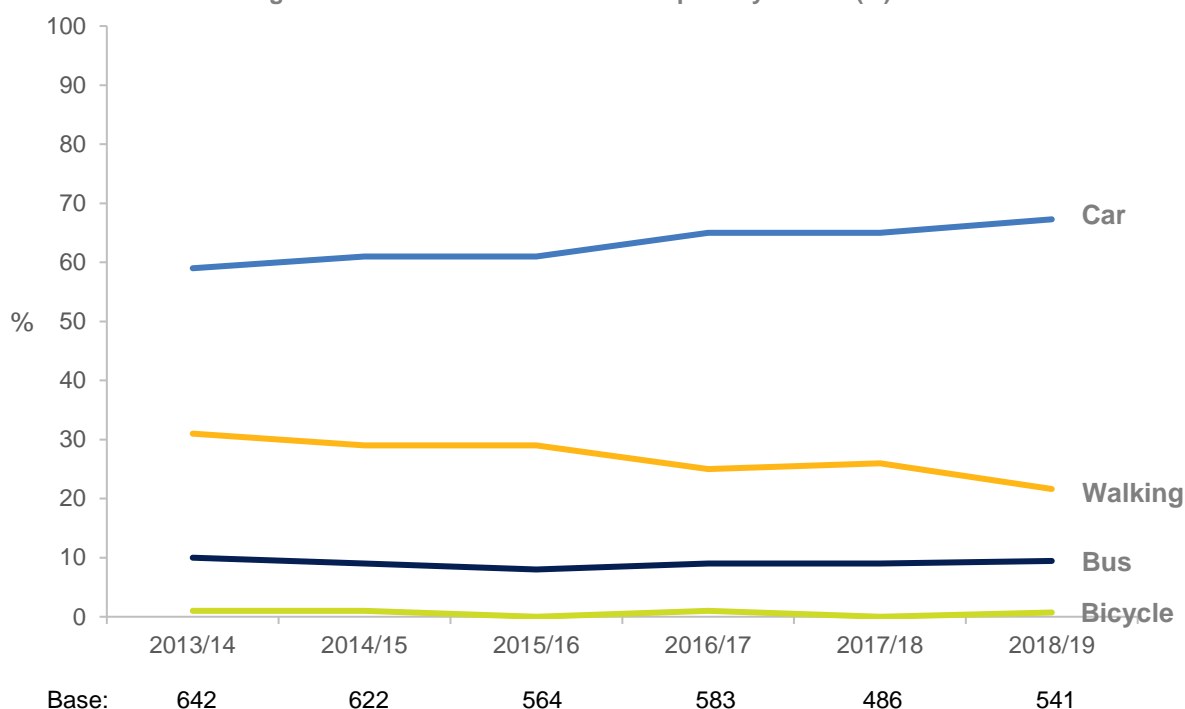
In 2018/19, post-primary school pupils living in urban areas (31%) were more likely to walk to/from school than those living in rural areas (5%). Those living in rural areas (70%) were more likely to take the bus than those living in urban areas (39%).

2. MAIN MODES OF TRAVEL TO AND FROM SCHOOL

Respondents were then asked to consider the **main** mode of travel their child used to travel to and from school, that is, the mode of travel used for the longest part of the journey.

a. *Primary School*

Figure 3: Main mode of travel to/from primary school (%)

| Base: | 642 | 622 | 564 | 583 | 486 | 541 |
| | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 |

In 2018/19, around two-thirds (67%) of primary school pupils travelled to/from school by car as their main mode of travel, a similar proportion to 2017/18 (65%). One in five (22%) primary school pupils walked to/from school. A further 9% of primary school pupils travelled by bus with 1% having travelled to school by bicycle and by equal modes[3]. A full breakdown is available in Table 1, overleaf.

Looking at the trend since 2013/14, travel by car has increased from 59% to 67% and conversely, the proportion of primary school pupils walking to and from school has decreased from 31% to 22%. There has been no real change in the proportions travelling by bus or by bicycle.

---

[3] Equal modes: parents cannot distinguish which mode was used for the longest part of the journey

Table 1: Main mode of travel to and from primary school 2013/14 – 2018/19

	2013/14 (%)	2014/15 (%)	2015/16 (%)	2016/17 (%)	2017/18 (%)	2018/19 (%)	Change since 2013/14
Walking	31	29	29	25	26	22	⬇
Bicycle	1	1	0	1	0	1	⬌
Car	59	61	61	65	65	67	⬆
Bus	10	9	8	9	9	9	⬌
Train	0	0	0	0	0	0	-
Equal*	0	0	2	0	0	1	-
Base	642	622	564	583	486	541	

*Equal refers to those who use different modes of travel to/from school for equal amounts of time/distance

Urban/Rural

Primary school pupils living in urban areas (31%) were more likely to walk to and/or from school than those living in rural areas (9%). Conversely, three-quarters (75%) of primary school pupils living in rural areas were driven to school by car and 14% by bus, which is higher than those living in urban areas (61% by car; 6% by bus).

b. Post-Primary School

Figure 4: Main mode of travel to/from post-primary school (%)

Base:	613	550	576	550	411	464
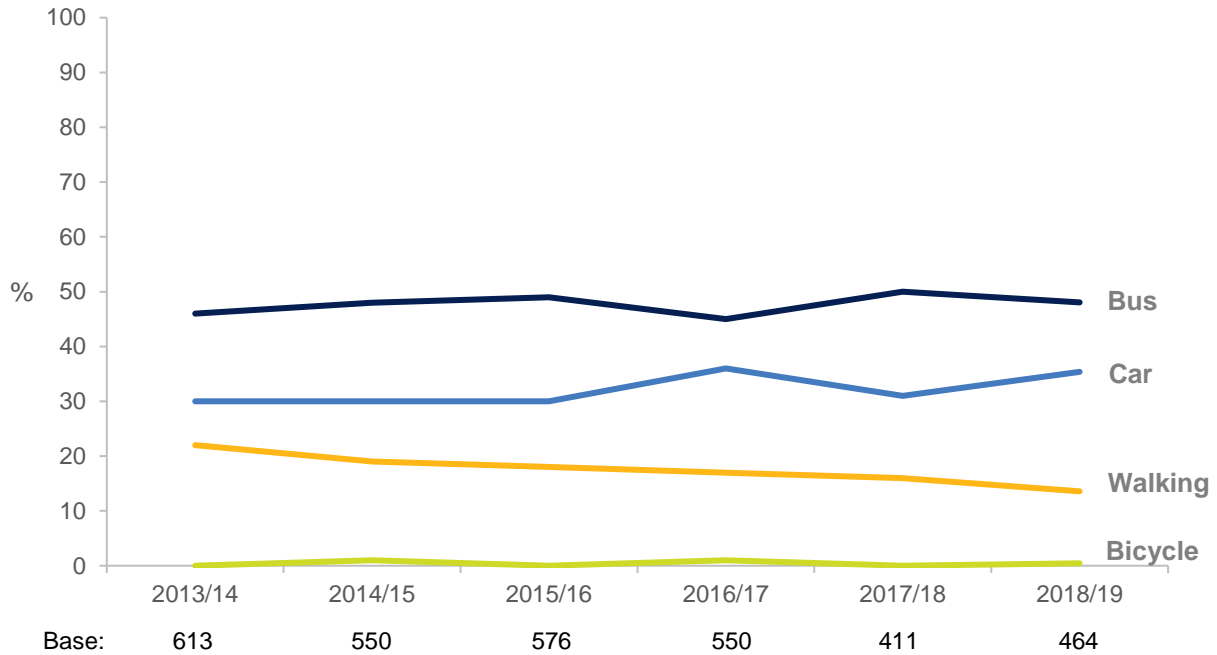
Almost half (48%) of post-primary school pupils travelled to/from school by bus as their main mode of travel in 2018/19 and a further 35% travelled to/from school by car. Less than one in five (14%) pupils walked to/from school, while a small proportion took the train (2%).

A small proportion of parents (1%) said they could not distinguish the main mode of travel (i.e. equal time and/or distance travelled by different modes).

Since 2013/14, the proportion of post-primary school pupils who walk to/from school has decreased from 22% to 14%. There has been no real change in travel by bicycle, car or bus.

Table 2: Main mode of travel to and from post-primary school 2013/14 – 2018/19

	2013/14 (%)	2014/15 (%)	2015/16 (%)	2016/17 (%)	2017/18 (%)	2018/19 (%)	Change since 2013/14
Walking	22	19	18	17	16	14	⬇
Bicycle	0	1	0	1	0	0	⬌
Car	30	30	30	36	31	35	⬌
Bus	46	48	49	45	50	48	⬌
Train	2	1	1	1	2	2	-
Equal*	1	1	2	1	1	1	-
Base	**613**	**550**	**576**	**550**	**411**	**464**	

*Equal refers to those who use different modes of travel to/from school for equal amounts of time/distance

Urban/Rural

In 2018/19, post-primary school pupils living in urban areas (24%) were more likely to walk to and/or from school than those from rural areas (1%). Post-primary pupils living in rural areas (63%) were more likely to travel to/from school by bus than those living in urban areas (35%).

3. WALKING

Those who indicated that their child normally walked to/from school (162 primary school; 89 post-primary), were subsequently asked whether their child walked all or part of the way, how long they spent walking, and how many days per week that they walked.

There were not enough post-primary school pupils in the sample who walked all or part of the way for further analysis. Analysis below is for primary school pupils only.

Figure 5: Proportion of primary school pupils who walk all of the way to/from school (%)
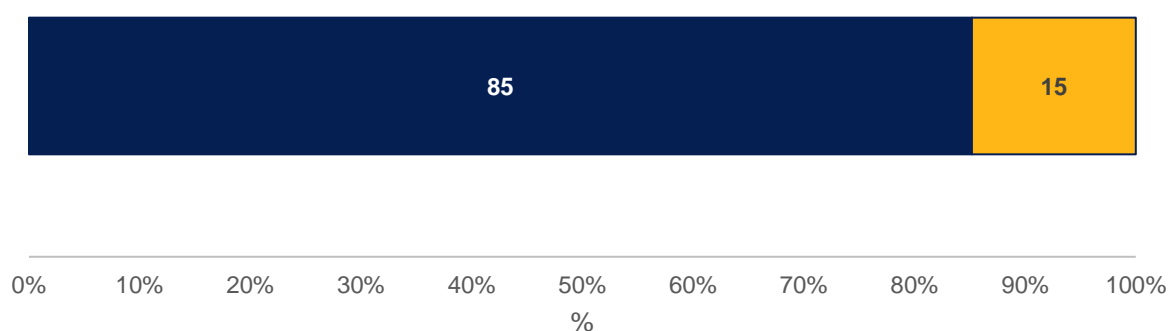
Base: 162

Of the 162 primary school pupils who normally walked to school, 85% of these walked *all of the way*, which is statistically similar to the proportion who walked *all of the way* to school in 2017/18 (91%).

Figure 6: Total time spent walking to school per day (%) (primary school)

- 10 mins or less
- 11-20 mins
- 21-30 mins
- more than 30 mins

27

18

28

28

Base: 162
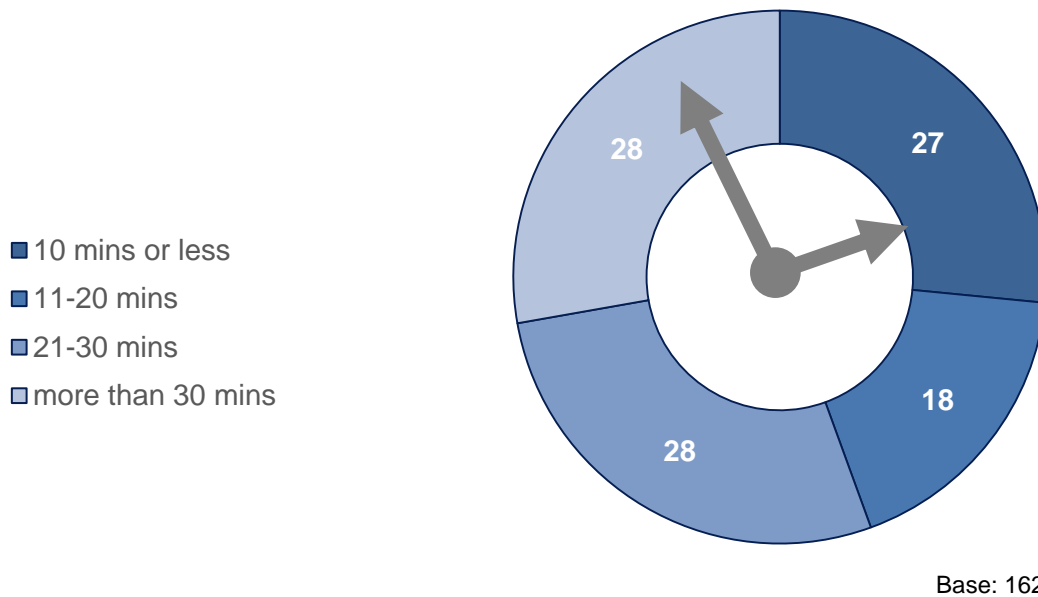
Over a quarter (27%) of primary school pupils spent 10 minutes or less walking to and from school, 18% spent 11-20 minutes, 28% spent 21-30 minutes and 28% spent more than 30 minutes walking to and from school on a daily basis (Figure 6).

Figure 7: Proportion of primary school pupils who walked to/from school everyday

Around 3/5 primary school pupils who walk to and from school do so every day

Of the 162 primary school pupils who walked all of part of the way to/from school, around 3 in 5 walk to or from school 5 days per week (Figure 7).

4. DISTANCE FROM HOME TO SCHOOL

All parents and guardians were asked to estimate the distance from their home to their child's school (to the nearest whole mile*).

Figure 8: Distance from pupils home to school (to the nearest whole mile)

Distance to School

Primary School		Post-Primary School
50%	0-1 miles	19%
29%	2-3 miles	27%
21%	4+ miles	53%
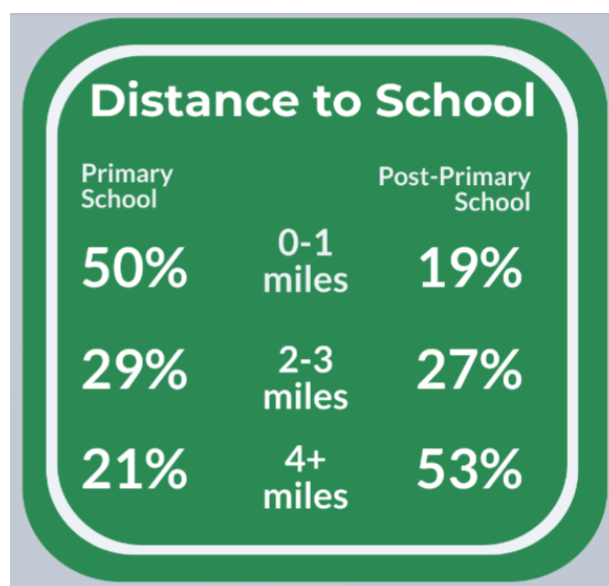
Base: 540   Base: 462

*0 mile = less than half a mile, 1 miles = ½ mile to less than 1 ½ miles, etc.

50% of primary school pupils lived 0-1 mile from their school, 29% lived between 2-3 miles and 21% lived 4 or more miles from their school. Around one in five (19%) post-primary school pupils lived between 0-1 miles from their school, while more than half (53%) lived 4 or more miles away from their school (Figure 8).

In 2018/2019, there were 813 primary schools and 196 post-primary schools in Northern Ireland[4]. Therefore, it is likely that children will live closer to primary schools than post-primary schools and these results are not unexpected. Older children may also be more likely to travel further to attend post-primary school of their choice.

---

[4] https://www.education-ni.gov.uk/node/37331

Main Mode of travel to and from school (by distance)

a. Primary School

Figure 9: Distance from pupil's home to primary school by main mode of transport used

Base: 272   Base: 157
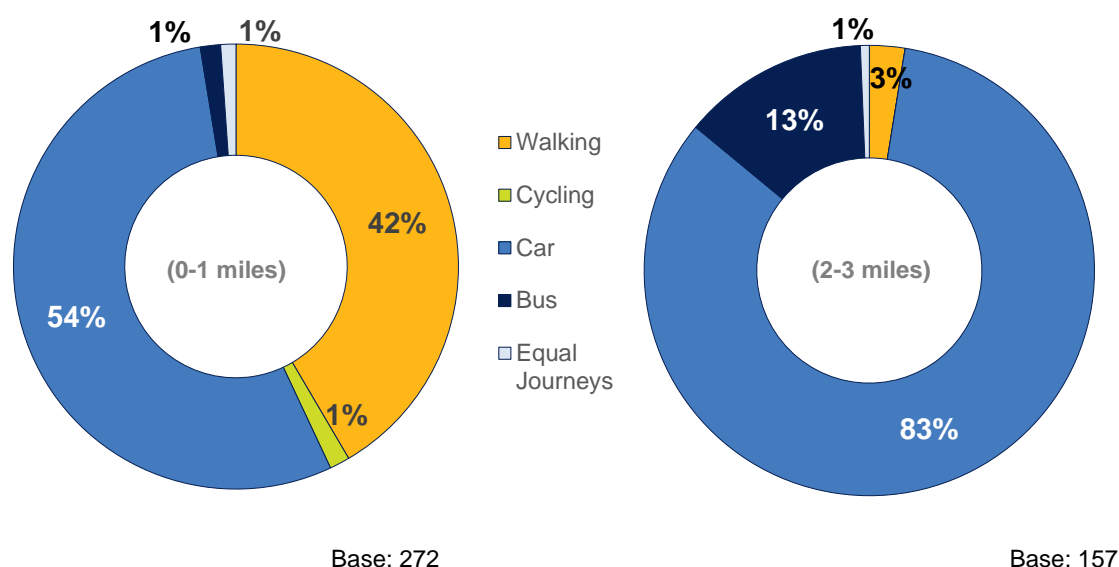
Over half (54%) of primary school pupils who lived between 0-1 miles from their school were taken to school by car. 42% of those who lived 1 mile or less from their school walked. A small proportion of these travelled by bus (1%), or by bicycle (1%).

Of those who lived between 2-3 miles from their school, the majority travelled by car (83%), while 13% travelled by bus. A small proportion who lived between 2-3 miles from their school walked (3%).

As expected, almost all of those who lived 4 miles or more from their school travelled by car (76%), or by bus (23%).

Since 2013/14, the proportion of primary school children who live within 0-1 miles from their school and travel by car has increased while those who walk or cycle to and from school has decreased. There has been no significant changes for those who live between 2-3 miles of their primary school.

b. Post-Primary School

Figure 10: Distance from pupil's home to post-primary school by main mode of transport used

Base: 216   Base: 246
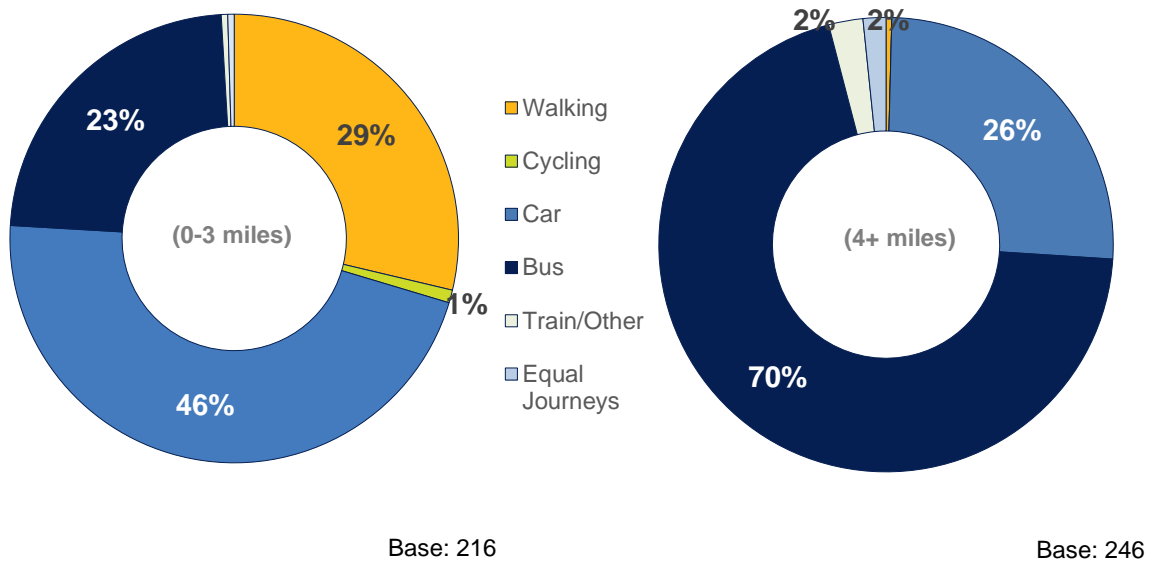
Almost half (46%) of post-primary pupils who lived between 0 and 3 miles[5] from their school, were driven to and from school by car. Just under 3 in ten (29%) who lived between 0 and 3 miles from their school, walked.

Of post-primary school pupils who lived 4 or more miles from their school, a quarter travelled by car (26%), and 70% of who lived 4 or more miles from their school travelled by bus (Figure 10).

Since 2013/14, the proportion of post-primary schools pupils who lived 0-3 miles from their school who walked or cycled to and/or from school has decreased. Amongst those who live 4 or more miles from their school, the proportion using bus as their main mode of travel has increased.

---

[5] Categories combined due to small sample size

5. CYCLING

In 2018/19, the proportion of primary school pupils who cycled to school was 1% and post-primary school pupils was 0%.

Due to the small numbers of pupils cycling, it is not possible to present any further analysis or breakdown of cycling to school.

This is similar to previous reports regarding cycling to school. If number or sample increases allow, further analysis on cycling will be included in future.

Appendix 1: 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 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 Department for Regional Development (DRD) commissioned questions related to method of travel to/from school in both the 2013/14 and 2014/15 CHS. On 9th May 2016 the new Department for Infrastructure (DfI) was formed and DRD ceased to exist. DfI commissioned a repeat of these questions in the years since. Therefore this is the sixth time that they have been asked.

The 2018/19 survey 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 questions relating to school travel are included in Appendix 4 of this publication.

The dataset contains the records for 1,007 children who attended a primary or post-primary level school at the time of interview and whose parents provided a response. These records are based on the responses to the DfI Household Module answered by the Household Reference Person or Spouse.

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 Official Statistics Code of Practice[6].

---

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

The CHS sample was assessed and considered to be a representative sample of the Northern Ireland population at the 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 20). 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.

Multiple response questions

Multiple response questions are those for which respondents can give more than one response if they wish. For example, in the first question in this report, parents were asked to list all of the modes of transport their child used to travel to or from school. In such questions, when individual percentages are summed they may add to more than 100%. Therefore, the footnote "Percentages may sum to more than 100% due to multiple responses" has been included under the relevant charts within the main body of this publication and under the appropriate data tables in Appendix 2.
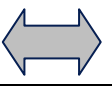
Rounding conventions

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, those living in urban and rural areas and the differences between the two groups cannot simply 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 pupil population.

Where the term 'similar', 'no real difference' or 'around the same' has been used when comparing results (including year-on-year) it means that there is no significant difference between the results being compared.

The following symbols have been used in the report to denote significant change:

Symbol	Meaning
⬆	Increase is significant
⬌	No real change
⬇	Decrease is significant

The following respondent groups were considered:

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.

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 3 on page 21.

Other notes

The following should be noted when interpreting figures and tables:

- Detailed tabulations are not provided where the number of respondents is too small to allow meaningful analysis.
- The base number of responses to each question, which is shown in each table, is the unweighted count. The base may vary due to some respondents not answering certain questions.

Appendix 2: Comparison data

Table 3: Comparison[1] with Travel Survey for Northern Ireland and Census 2011 Travel to School Results

Primary School Children (aged 4-11)

	Census	TSNI[2,3]	CHS
	2011 (%)	**2016-2018 (%)**	**2018/2019 (%)**
Walk/On Foot	24	23	22
Bicycle	0	2	1
Bus, Minibus or Coach	14	12	9
Car[4]	61	62	67
Other or 'cannot distinguish'[3]	0	0	1
Number of persons in sample aged 4-11	**154,062**	**470**	**543**

Table 4: Comparison[1] with Travel Survey for Northern Ireland and Census 2011 Travel to School Results

Post Primary School Children (aged 12-18)

	Census	TSNI	CHS
	2011 (%)	**2016-2018 (%)**	**2018/2019 (%)**
Walk/On Foot	17	17	14
Bicycle	0	0	0
Bus, Minibus or Coach	49	46	48
Car[4]	32	36	35
Other or 'cannot distinguish'[5+]	0	1	3
Number of persons in sample aged 12-18	**145,608**	**368**	**464**

Notes:

Totals may not sum to 100% due to rounding

[1] Caution should be used when interpreting and comparing these figures due to differing methodologies and questions used to derive methods of travel to school.

[2] Main mode of travel: Journeys can consist of stages e.g. walk to bus stop and take the bus to school. The main mode of travel is the form of transport used for the greatest length of the journey.

[2] Main mode of travel: Journeys can consist of stages e.g. walk to bus stop and take the bus to school. The main mode of travel is the form of transport used for the greatest length of the journey.

[3] Based on journeys where the journey purpose was education. Journey purpose is governed by what the person did at the end of the journey but for journeys home the purposes is governed by the start of the journey. Therefore a journey home from school is classified as an education journey as well as any journey to school.

[4] Car includes Car, van and taxi.

[5] 'Cannot distinguish' was not an option in the Census or the TSNI.

[5+] 'Other' includes those who travelled by train

Appendix 3: 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, 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 for walking and cycling to school. Table 5 below summarizes the confidence intervals for Main Method of Travel to/from School in NI.

Table 5: Confidence Intervals for Main Method of Travel to/from School 2017/2018: Walking and Cycling

	Estimate	95% Confidence Range +/-	Confidence Interval
Primary School Pupils who walk or cycle to school	22%	4	18% - 26%
Post primary School Pupils who walk or cycle to school	14%	3	11% - 17%

- 22% of primary school pupils walked or cycled to/from school in Northern Ireland. Calculating a 95% confidence interval from the results of the survey, it can be estimated that between 18% and 26% of the Northern Ireland primary school population walked or cycled to/from school.

- 14% of post primary school pupils walked or cycled to/from school in Northern Ireland. Calculating a 95% confidence interval from the results of the survey, it can be estimated that between 11% and 17% of the Northern Ireland post primary population walked or cycled to/from school.

Appendix 4: Questionnaire

CHILDREN TRAVEL TO SCHOOL

[CINTRO] I would now like to ask some questions about the children in this household.

ASKED OF EACH PERSON IN THE HOUSEHOLD AGED 4-19

[C1] Is CHILD at a primary or post-primary school?

1. Primary school   -> [MODE]
2. Post-primary school   -> [MODE]
3. No longer at school   -> [DEintro]
4. Not started school   -> [ENVIRON]

[MODE] SHOWCARD 9 (MODES OF TRANSPORT)

Which of the modes of transport listed does CHILD normally use to get to and from school?

Please consider both journeys and include all modes of transport.

If CHILD walks PART of the way in conjunction with some other form of transport (e.g. walks to or from a bus stop or after being dropped off) only include walking if CHILD has to walk for 10 minutes or more.

CODE ALL THAT APPLY

1. Walking (all or part of the way)
2. Bicycle
3. Car/van
4. Bus
5. Train
6. Taxi
7. Other   -> [MODEOTH]

[MODEOTH] Please specify the other mode of transport

[MAIN] SHOWCARD 9 (MODES OF TRANSPORT)

And which of these do you consider is CHILD's main mode of transport to and from school?

(IF MORE THAN ONE MODE SELECT THE MODE WITH THE LONGEST JOURNEY)

1. Walking (all or part of the way)

2. Bicycle

3. Car/van

4. Bus

5. Train

6. Taxi

7. Other

8. Cannot distinguish - equal number of journeys made with different modes (e.g. car lift to school 5 days a week, walk home from school 5 days a week) -> [MAINB]

[MAINB] Which modes have equal journeys made?

1. Walking (all or part of the way)

2. Bicycle

3. Car/van

4. Bus

5. Train

6. Taxi

7. Other

ASKED IF WALKING IS MENTIONED AT MODE OF TRANSPORT TO SCHOOL

[C2] You mentioned previously that CHILD normally walks either to or from school. Can I just check, is that walking all or part of the way to or from school?

1. All of the way

2. Part of the way

[C3] About how many days per week does CHILD walk (all or part of the way) to school? 0..5

[C3a] How many days per week does CHILD walk (all or part of the way) home from school? 0..5

[C5] How long (in minutes) does CHILD spend in total walking to and from school on a daily basis? 1..180

ASKED IF CYCLING IS MENTIONED AT MODE OF TRANSPORT TO SCHOOL

[C4] About how many days per week does CHILD cycle to school? 0..5

[C4a] How many days per week does CHILD cycle home from school? 0..5

[C6] How long (in minutes) does CHILD spend in total cycling to and from school on a daily basis? 1..120

ASKED ABOUT PERSON IN THE HOUSEHOLD WHO IS ATTENDING SCHOOL

[C7] How far is CHILD 's school (to the nearest whole mile) from your home? 0..90