Method of Travel to/from school by pupils in Northern Ireland, 2017/18

Contents

OGL

This publication is also available at
https://www.infrastructure-ni.gov.uk/articles/travel-school-0

Any enquiries regarding this document should be sent to us at:

Analysis, Statistics and Research Branch
Department for Infrastructure
Clarence Court
10-18 Adelaide Street
Belfast
BT2 8GB

Tel: +44 (0)28 9054 0865
Email: ASRB@nisra.gov.uk

Introduction

Travelwise NI is DfI's initiative to encourage people to choose sustainable transport options[1] such as walking, cycling, public transport or car sharing. Travelwise NI is an integral part of DfI's Safe and Sustainable Transport Division and delivers its programmes in partnership with DfI Roads, the Department of Education, Sustrans, the Public Health Agency, and Translink.

TravelwiseNI encourages schools, pupils and parents to investigate the benefits of replacing the daily school run by walking and cycling to school where possible. It encourages schools to take part in a range of participative events such as 'Walk/Cycle to School Week'. TravelwiseNI in partnership with the Public Health Agency, funds the Active School Travel programme to raise awareness of sustainable travel options, such as walking and cycling, and to promote the benefits for children such as:

- becoming healthier and fitter
- becoming more independent and self-confident
- improving their environment and build their skills

Uses of the data

The 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 effectiveness of the Travelwise NI Initiatives that are aimed at increasing the proportion of children who travel actively to school.

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[1]   https://www.nidirect.gov.uk/information-and-services/travel-transport-and-roads/active-travel-and-sustainable-transport

Distance to school

Post Primary

0-1 Miles	50%
2-3 Miles	32%
4+ Miles	18%

0-1 Miles	18%
2-3 Miles	31%
4+ Miles	50%

Main Mode of Travel to/from School

	Urban			Rural	
	Primary	**Post-Primary**		**Primary**	**Post-Primary**
Car	59%	31%		72%	30%
Bus	5%	41%		9%	65%
Bicycle	0%	0%		0%	0%
Walk	35%	24%		14%	4%

Active Travel

Primary / Post Primary

26% — **16%**

More than 3/4 of children who walk to school do so every day

Travel to/from School
Results from the 2017/18 Continuous Household Survey

ASRB@NISRA.GOV.UK

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

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

Key Points

Main[2] mode of travel to/from school

Among primary school pupils, almost two thirds (65%) were driven to/from school by car/van/taxi and just over a quarter (26%) usually walked to/from school. A further 9% of pupils travelled to/from school by bus, while less than 1% of pupils cycled as their main mode of transport to and from school. These results are similar to 2016/17, however there has been a decrease in walking and conversely an increase in those travelling by car since 2013/14.

Among post primary pupils, 50% travelled to/from school by bus as their main mode of transport and a further 31% were driven by car. Under a fifth (16%) of pupils walked to/from school while a small proportion took the train (2%). These results are similar to 2016/17, however the longer term trend shows a decrease in walking and increase in car travel since 2013/14.

Active Travel

Active Travel

Primary 26%   Post Primary 16%
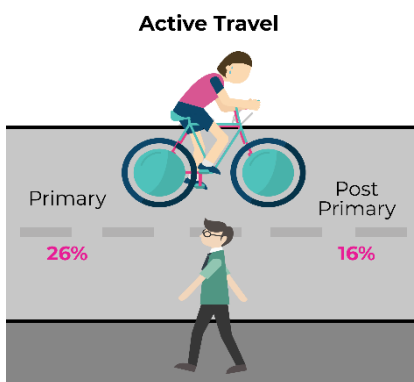
Just over a quarter (26%) of primary school pupils walk or cycle to school as their main mode of transport compared with 16% of post primary school pupils. These results are similar to 2016/17 when 29% of primary school pupils and 18% of post primary school pupils walked or cycled to school as their main mode of transport, however, there has been a decrease in walking and cycling for post primary school pupils since 2013/14.
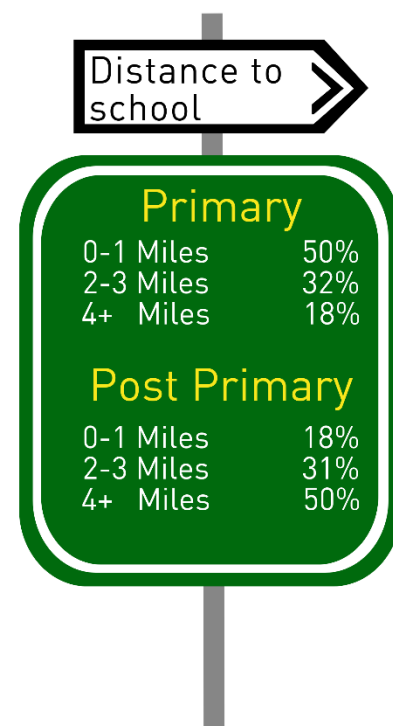
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[2] If a pupil uses more than one mode of travel to/from school the main mode is the
 mode that is used for the longest part of the journey

Distance from home to school

Half (50%) of primary school pupils lived 0-1 mile from their school, with 32% living between 2-3 miles and 18% living 4 or more miles from their school.

For post-primary pupils, 18% lived 0-1 mile from their school, with 32% living between 2-3 miles. The remaining 50% lived 4 or more miles from their school.

In 2017/18, there were 817 primary schools and 199 post primary schools[3] in NI. It is likely therefore, that children will live closer to primary schools so these results are not unexpected.

Distance to school

Primary

0-1 Miles	50%
2-3 Miles	32%
4+ Miles	18%

Post Primary

0-1 Miles	18%
2-3 Miles	31%
4+ Miles	50%

[3] https://www.education-ni.gov.uk/publications/school-enrolments-school-level-data-201718

Results

To provide context, respondents were asked if children in the household attended primary school or post primary school. Parents/guardians were then asked the set of questions on behalf of their children.

Of the 898 children whose parents were surveyed, 486 (54%) attended a primary school and the remaining 412 (46%) attended a post primary school.

Modes of transport used to/from school

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

Figure 1: Primary School

Figure 2: Post Primary School
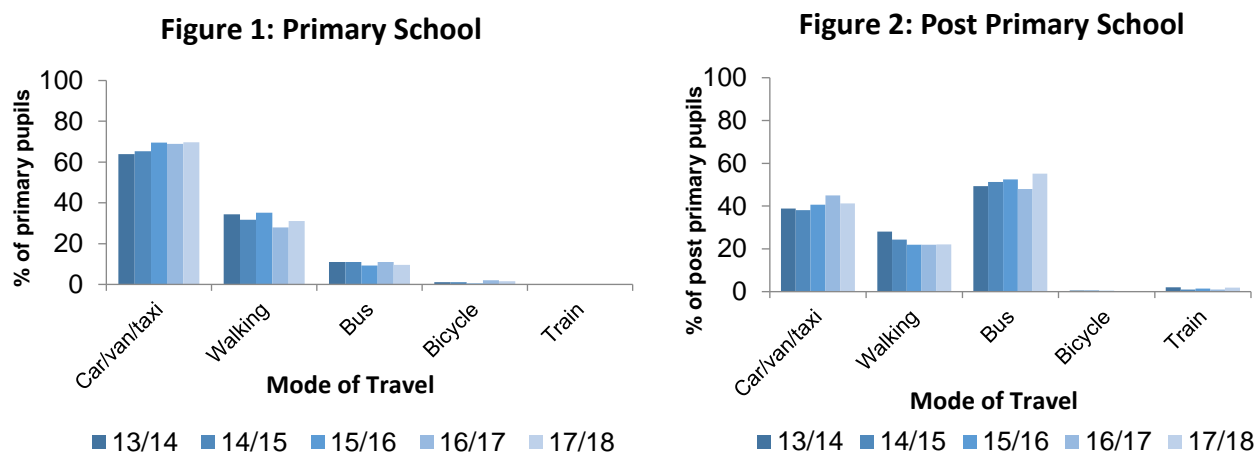
Bases: 13/14=642; 14/15=622; 15/16=564 16/17=583* 17/18=486   Bases: 13/14=613; 14/15=522; 15/16=576 16/17=550* 17/18=412

*Information was not provided for 7 primary school pupils and 1 post primary school pupil
Percentages may sum to more than 100% due to multiple responses.

Primary school pupils

Among primary school pupils, almost seven tenths (70%) were driven to/from school by car/van/taxi, almost a third (31%) walked either all or part of the way to/from school, 10% took a bus and 2% of pupils cycled to/from school.

Primary school pupils living in rural areas were more likely to be driven to school by bus (15%) than those living in urban areas (5%). They were also more likely to travel to school by car/van/taxi (75% compared to 65%). Those in urban areas (40%) were more likely to walk all or part of the way than those in rural areas (20%). There was no

difference between pupils living in rural areas and urban areas when considering other modes of travel.

Post primary school pupils

Among post primary pupils, over half (55%) travelled to/from school by bus, 41% were driven by car and 22% walked for all or part of the way. A small proportion of pupils travelled by train (2%) to/from school.

Post primary school pupils living in urban areas were around four times as likely to walk for all or part of the way to school (32%) than those living in rural areas (8%). Conversely, post primary pupils living in rural areas were more likely to take the bus (70%) to school than those living in urban areas (45%).

Main mode of transport used to/from school

Respondents were then asked to consider the child's **main** mode of transport to and from school, i.e. the mode of transport used for the longest part of the journey.

Main mode of travel: primary school pupils

Figure 3: Primary School
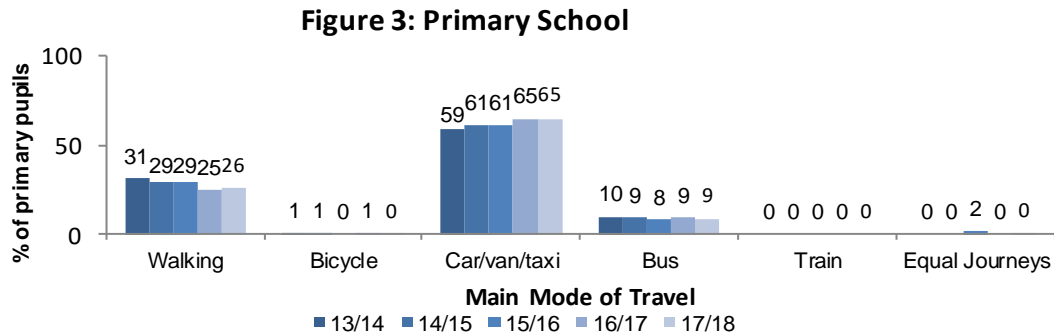
Base: 13/14=639; 14/15=622; 15/16=564, 16/17=583*

*Information was not provided for 7 primary school pupils

Among primary school pupils, almost two thirds (65%) were driven to/from school by car/van/taxi and just over a quarter (26%) usually walked to/from school. Less than one in ten (9%) pupils travelled to/from school by bus.

Table 1: Main mode of transport to and from school for Primary School Pupils: 2013/14 to 2017/18

	2013/14 (%)	2014/15 (%)	2015/16 (%)	2016/17 (%)	2017/18 (%)	Change Since 2013/14
Walking (all or part of the way)	31	29	29	25	26	↔
Bicycle	1	1	0	1	**0**	↔
Car/van/taxi	59	61	61	65	65	⬆
Bus	10	9	8	9	9	↔
Train	0	0	0	0	0	↔
Cannot distinguish - equal number of journeys made with different modes	0	0	2	0	0	↔
Base	**642**	**622**	**564**	**583***	**486**	

*Information was not provided for 7 pupils

Since 2013/14 (31%), there has been no real change in the proportion of children who walk to school (26% in 2017/18) however, the proportion of children who are driven to school by car has increased from 59% to 65%.

Main mode of travel: post primary school pupils

Figure 4: Post Primary School
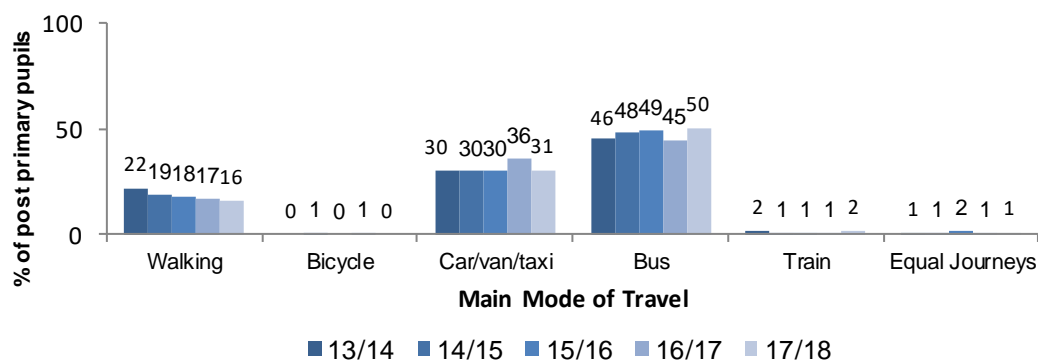
Base: 13/14=612; 14/15=521; 15/16=576 16/17=550*

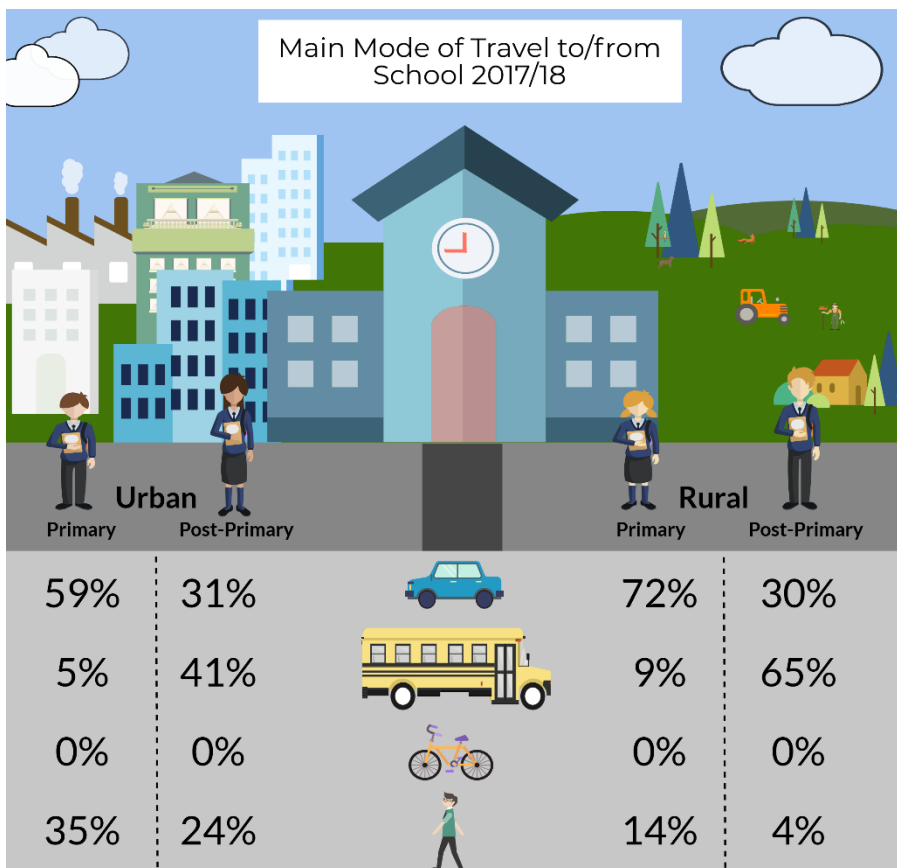*Information was not provided for 1 pupil

Among post primary pupils, 50% travelled to/from school by bus and a further 31% were driven by car. Under a fifth (16%) of pupils walked to/from school while a small proportion took the train (2%). A small proportion (1%) of parents stated that they could not distinguish the main mode of travel, i.e. equal number of journeys made with different modes.

Table 2: Main mode of transport to and from school for Post Primary School Pupils: 2013/14 to 2017/18

	2013/14 (%)	2014/15 (%)	2015/16 (%)	2016/17 (%)	2017/18 (%)	Change since 2013/14
Walking (all or part of the way)	22	19	18	17	16	⬇
Bicycle	0	1	0	1	0	↔
Car/van/taxi	30	30	30	36	31	↔
Bus	46	48	49	45	50	↔
Train	2	1	1	1	2	↔
Cannot distinguish - equal number of journeys made with different modes	1	1	2	1	1	↔
Base	**613**	**550**	**576**	**550***	**412**	

*Information was not provided for 1 pupil

Main mode of travel by Urban/Rural

Main Mode of Travel to/from School 2017/18

|	Urban Primary	Urban Post-Primary		Rural Primary	Rural Post-Primary
Car	59%	31%		72%	30%
Bus	5%	41%		9%	65%
Bicycle	0%	0%		0%	0%
Walking	35%	24%		14%	4%

Primary school children living in rural areas were more likely to be driven to/from school by car (72%) and by bus (9%) than those living in urban areas (car: 59%; bus: 5%).

Post primary school pupils living in rural areas were more likely to travel to/from school by bus (65%) than those living in urban areas (41%). Those living in urban areas were more likely to walk to/from school (24% vs 4%).

Walking and cycling to/from school

During 2017/2018, just over a quarter (26%) of primary school pupils walked or cycled to school as their main mode of transport compared with less than a fifth (16%) of post primary school pupils. These results are similar to 2016/17 when 26% of primary school pupils and 18% of post primary school pupils walked or cycled to school, however, there has been a decrease in walking and cycling for post primary school pupils since 2013/14.

Active Travel

Primary

Post Primary

26%

16%
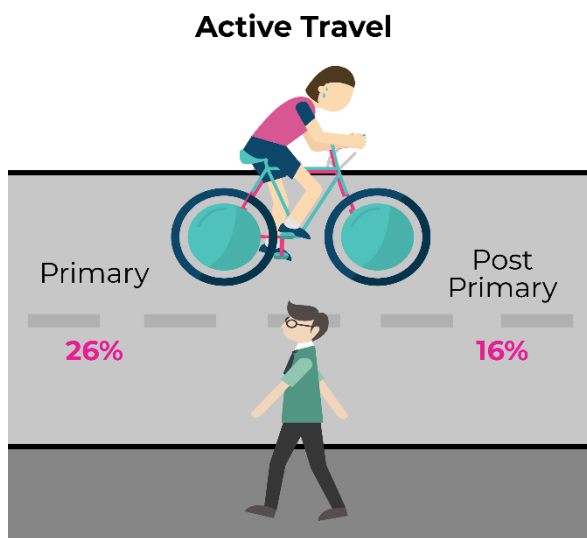
As these percentages are calculated from a representative sample of the Northern Ireland population, confidence intervals must be calculated to estimate the level of uncertainty in the sample estimate. These confidence intervals can be found in Appendix 4 on Page 25.

Walking to/from school

Respondents who stated that their child normally walked for all or part of the way to/from school (150 of whom were primary school pupils and 91 were post primary pupils), were subsequently asked whether their child walked all of the way or part of the way to/from school.

Figure 5: Walking to and from school
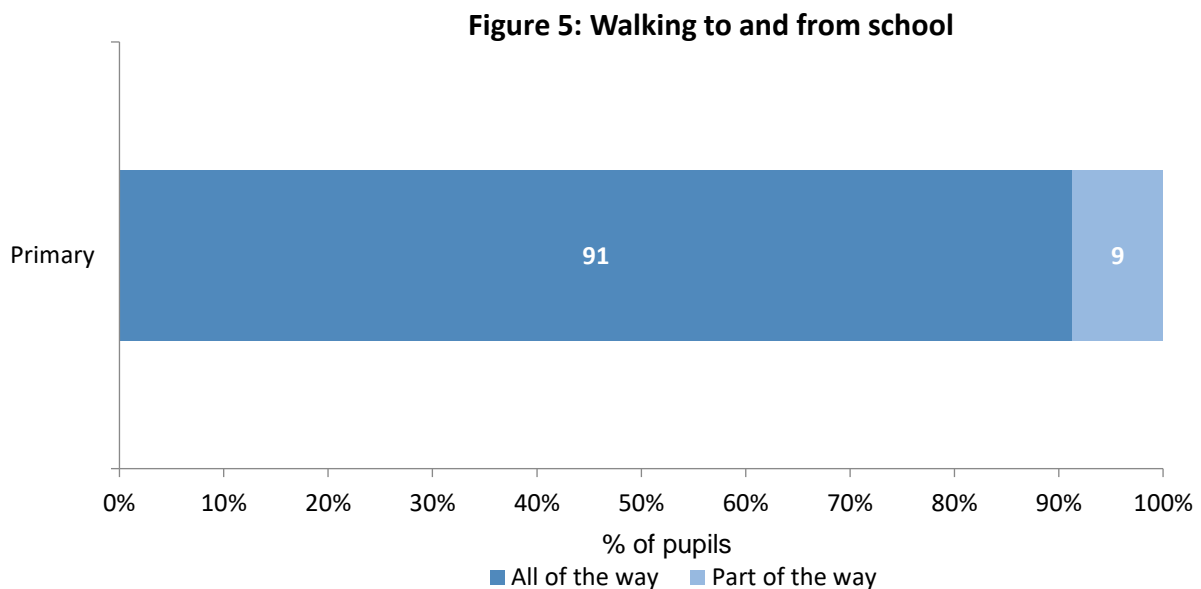
Base: Primary=150

Of the 150 primary school children who walked, 91% walked all of the way to/from school and the remaining 9% walked part of the way. When looking at only pupils who walk to/from school, these results are around the same as 2016/17, when 89% walked all of the way and 11% walked part of the way.

There were not enough post primary school children in the sample who walked all or part of the way to school for further analysis.

Number of days per week walked to and from primary/ post primary school

More than 3/4 of children who walk to school do so every day

The parents and guardians of children who walked all or part of the way to/from school were then asked to indicate how many days per week the child walked to school (all or part of the way).
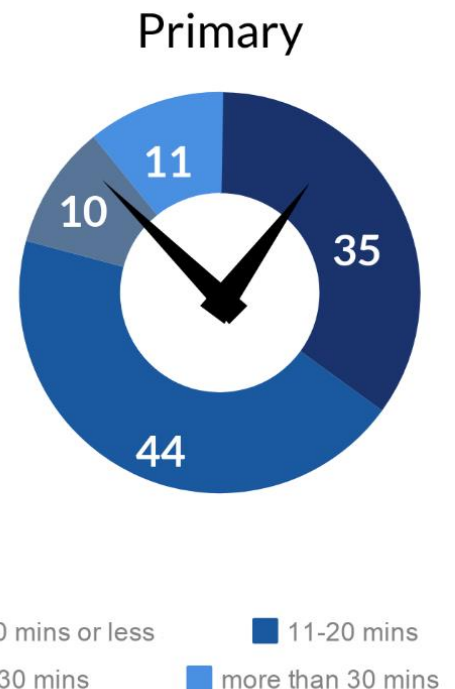
Of the 150 primary school children who walked all or part of the way to and/or from school, 3 out of every 4 children walked to school (72%) and from school (76%) 5 days per week.

There were not enough post primary school children in the sample who walked all or part of the way to school for further analysis.

Length of time per day spent walking to and from primary/ post primary school

Parents who indicated that their child walked to/from school for all or part of the journey were asked how long in total their child spent walking to and from school on a daily basis.

Of the 148 primary school children who walked for all or part of the journey to/from school, over a third (35%) spent 10 minutes or less per day walking to and from school, 44% spent between 11 and 20 minutes and 10% spent between 21

Primary

11
10
35
44

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

and 30 minutes while the remaining 11% spent more than 30 minutes.

There were not enough post primary school children in the sample who walked all or part of the way to school for further analysis.

Cycling to/from school

The proportion of both primary school and post primary school children who cycled to/from school was 0% during 2017/18, therefore it is not possible to present any further analysis or breakdown of cycling to school.

Distance from home to school

Distance to school

Primary

0-1 Miles	50%
2-3 Miles	32%
4+ Miles	18%

Post Primary

0-1 Miles	18%
2-3 Miles	31%
4+ Miles	50%

Half (50%) of primary school pupils lived 0-1 mile from their school, with 32% living between 2-3 miles and 18% living 4 or more miles from their school.

For post-primary pupils, 18% lived 0-1 mile from their school, with 31% living between 2-3 miles. The remaining 50% lived 4 or more miles from their school.

In 2017/18, there were 817 primary schools and 199 post primary schools[4] in NI. It is likely therefore, that children will live closer to primary schools so these results are not unexpected.

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[4] https://www.education-ni.gov.uk/publications/school-enrolments-school-level-data-201718

Main mode of transport by distance to school
Primary

Figure 6: Distance from pupil's home to primary school by main mode of transport used
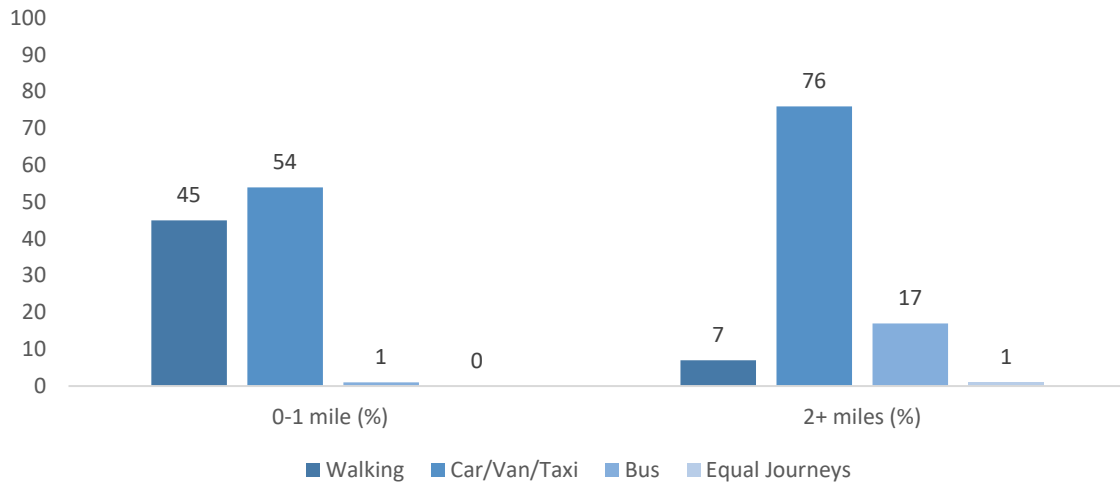
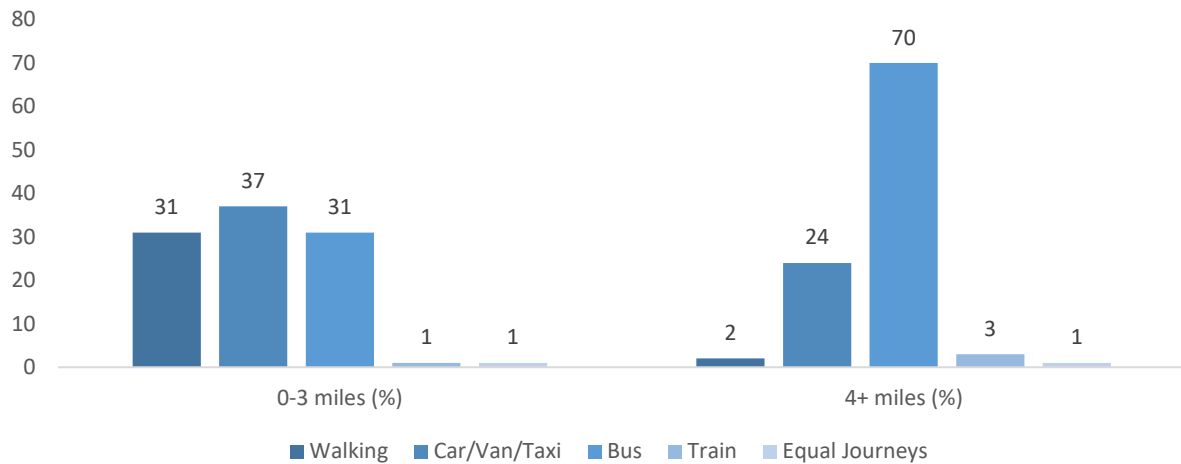(0 mile = less than half a mile, 1 mile = ½ mile to less than 1 ½ miles, etc.)

It can be seen from Figure 6 that over half (54%) of primary pupils living between 0-1 mile were driven to/from school by car/van/taxi while a further 45% walked and a small proportion (1%) travelled by bus.

For those living between 2+ miles from their school, 76% were driven by car/van/taxi, 17% took the bus and 7% walked to school.

Post primary

Figure 7: Distance from pupil's home to post primary school by main mode of transport used

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

*Information was not provided for 8 post primary school pupils.

Figure 7 shows that 31% of post primary pupils living between 0-3 mile walked to/from school, 37% were driven by car/van/taxi and 31% travelled by bus.

Of those living between 4+ miles from school, 24% travelled by car/van/taxi, just under 70% travelled by bus, 3% travelled by train and 2% walked to school.

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 2015/2016 and 2016/17 CHS. Therefore this is the fifth time that they have been asked.

The 2017/18 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 5 of this publication.

The dataset contains the records for 898 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[5].

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

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

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:

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

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 4 on page 25.

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]	Continuous Household Survey
	2011 (%)	2015-2017 (%)	2017/2018 (%)
Walk/On Foot	24	30	26
Bicycle	0	1	0
Bus, Minibus or Coach	14	12	9
Car[4]	61	56	65
Other or 'cannot distinguish'[3]	0	0	0
Number of persons in sample aged 4-11	**154,062**	**470**	**486**

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	Continuous Household Survey
	2011 (%)	2015-2017 (%)	2017/2018 (%)
Walk/On Foot	17	17	16
Bicycle	0	0	0
Bus, Minibus or Coach	49	43	50
Car[4]	32	39	31
Other or 'cannot distinguish'[5]	0	0	1
Number of persons in sample aged 12-18	**145,608**	**362**	**411**

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.
[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.

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

	Estimate	95% Confidence Range +/-	Confidence Interval
Primary School Pupils who walk to school	26%	4	22% - 30%
Post primary School Pupils who walk to school	16%	4	12% - 20%

- 26% of primary school pupils walked to/from school in Northern Ireland. Calculating a 95% confidence interval from the results of the survey, it can be estimated that between 22% and 30% of the Northern Ireland primary school population walked to/from school.

- 16% of post primary school pupils walked to/from school in Northern Ireland. Calculating a 95% confidence interval from the results of the survey, it can be estimated that between 12% and 20% of the Northern Ireland post primary population walked 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