

Travel to and from School by Pupils in Northern Ireland 2022/23

Findings from the Continuous Household Survey 2022/23



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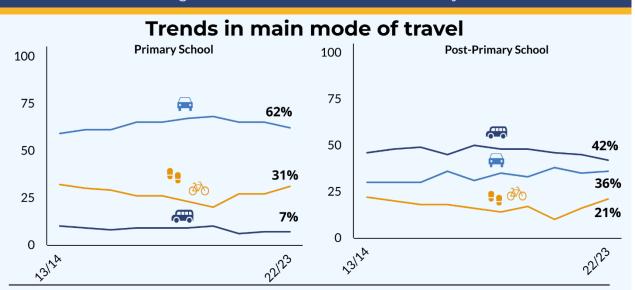
This publication is also available at the <u>Travel to School research webpage (opens in a new window)</u>

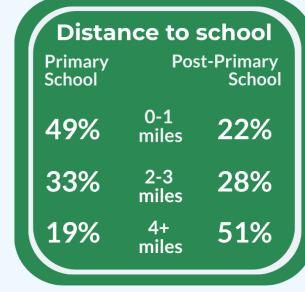


Travel to and from school by pupils in Northern Ireland



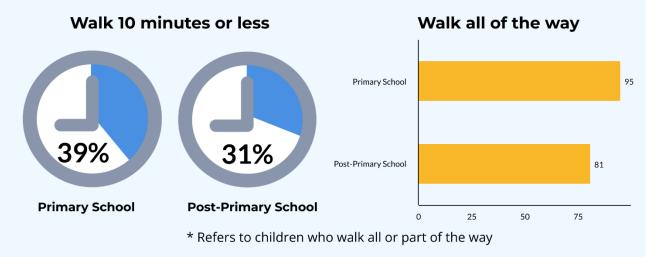
Findings from Continuous Household Survey 2022/23





Main mode of travel by distance to school Primary School (0-1 miles) 56% 0% 0% 39% 4% 6%

Walking to and from school*



KEY POINTS

Primary School

- For main mode of travel, 62% of pupils were driven to/from school by car and 30% usually walked. A further 7% took a bus and 1% cycled to and/or from school.
- Of those who walked to school, 95% of primary school pupils walked all of the way to/from school. Thirty-nine percent spent 10 minutes or less walking to and from school and 39% spent 11-20 minutes.
- Forty-nine percent of primary school pupils live a mile or less from school and of these, 39% were driven to school by car and 56% walked to school.

Post Primary School

- Amongst post-primary school pupils, 42% travelled to/from school by bus as their main mode of travel while 36% travelled to/from school by car. A further 21% pupils walked to/from school, while 2% took the train.
- Of those who walked to school, 81% of post primary school pupils walked all of the way to/from school. Thirty-one percent of post-primary school pupils spent 10 minutes or less walking to and from school, 39% spent 11-20 minutes and 14% spent 21-30 minutes.
- For post-primary school pupils, 51% lived 4 or more miles from their school. Of these pupils, 64% travelled by bus and 29% were driven by car.

INTRODUCTION

How we travel has a really important impact on our physical and mental health and wellbeing – whether through social exclusion, poor air quality or the fact that we are not active enough. By increasing activity and reducing reliance on the private car for some shorter everyday journeys, active travel can contribute to sustainability, reducing the cost of travel, providing children with a better and healthier start in life, and helping to improve air quality while reducing our carbon footprint.

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, wheeling, and cycling to school.

Please note: The above introductory comments (*shown in italics*) were provided by Dfl policy colleagues and were not written by the NISRA statisticians who compiled the rest of this report.

Uses of the data

This report provides annual statistics on the main method of travel to/from school and 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 of this report.

Methodology changes due to COVID-19

Due to the coronavirus (COVID-19) pandemic, data collection for the 2020/21 survey moved from face-to-face interviewing to telephone mode with a reduction in the number of questions. Telephone interviewing has remained in place for the 2021/22 survey; therefore caution should be used when interpreting trend data due to methodology and content changes during the 2020/21 survey period.

In 2020/21, the output from the survey, in terms of the range and depth of topics covered, was reduced from that of previous years, with the subsequent capacity for detailed analysis constrained. The Travel to school report was particularly impacted in 2020/21 with only one question on main mode of travel asked of parents.

In 2021/22, the sample size for the CHS returned to normal and while the survey content was slightly impacted by the move to telephone interviewing, the usual number of questions were asked for this module. No comparisons have been made to the Pandemic Year 2020/21 as the achieved sample was smaller than usual.

More information is available on the NISRA website.

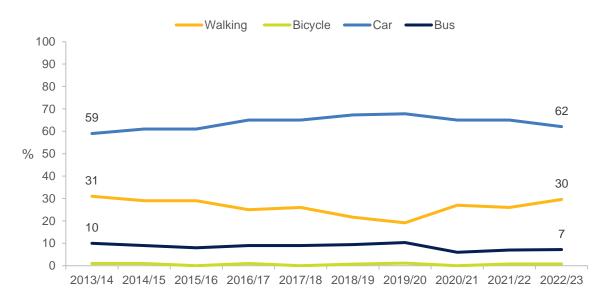
Part 1: MAIN MODES OF TRAVEL TO AND FROM SCHOOL

Respondents to the Northern Ireland Continuous Household Survey (CHS) were asked if children in the household attended primary school or post primary school. Parents¹ were then asked a set of questions on behalf of their children. These parents had a total of 1,141 children but some did not attend school at the time of interview. Of those children who did attend school, 487 attended primary and 508 attended post-primary school. The results of these questions are presented in this report.

Respondents were asked to consider the <u>main</u> 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 1: Main mode of travel trends to/from primary school 2013/14 to 2022/23(%)



Base: 2022/23= 486

In 2022/23, 62% of primary school pupils travelled to/from school by car² as their main mode of travel. Thirty percent of primary school pupils walked to/from school. A further 7% of primary school pupils travelled by bus with 1% having travelled to school by bicycle. A full breakdown is available in Table 1.

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.

Looking at the overall change between 2013/14 and 2022/23, there were no statistically significant changes observed in the proportions of pupils travelling to and from school for any of the usual modes of transport (Table 1).

Table 1: Main mode of travel to and from primary school 2013/14 - 2022/23

	13/14 (%)	14/15 (%)	15/16 (%)	16/17 (%)	17/18 (%)	18/19 (%)	19/20 (%)	20/21 ³ (%)	21/22 (%)	22/23 (%)	Change since 2013/14
Walking	31	29	29	25	26	22	19	27	26	30	\iff
Bicycle	1	1	0	1	0	1	1	0	1	1	\bigoplus
Car	59	61	61	65	65	67	68	65	65	62	\Leftrightarrow
Bus	10	9	8	9	9	9	10	6	7	7	\Leftrightarrow
Train	0	0	0	0	0	0	0	0	0	0	-
Equal*	0	0	2	0	0	1	1	0	1	0	-
Base	642	622	564	583	486	541	522	227	763	486	_

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

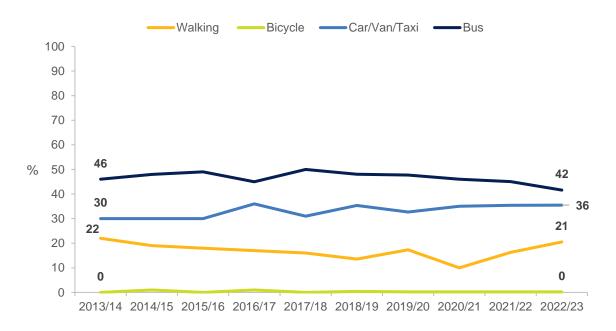
Urban/Rural

Primary school pupils living in urban areas (39%) were more likely to walk to and/or from school than those living in rural areas (16%). Conversely, 75% of primary school pupils living in rural areas were driven to/from school by car and 9% by bus, which is higher than those living in urban areas (53% by car; 6% by bus).

³ Due to changes as a result of the pandemic, comparisons are not being made to 2020/21.

b. Post-Primary School

Figure 2: Main mode of travel to/from post-primary school 2013/14 to 2022/23 (%)



Base: 2022/23, 507

Among post-primary school pupils 42% travelled to/from school by bus as their main mode of travel in 2022/23, while 36% travelled to/from school by car. Twenty-one percent of pupils walked to/from school, while 2% took the train.

Over the longer term period between 2013/14 and 2022/23, only travel to and from school by car saw a statistically significant change in the proportion of pupils using this mode of transport, with an increase in car use observed from 30% in 2013/14 to 36% in 2022/23 (Table 2).

Table 2: Main mode of travel to and from post-primary school 2013/14 - 2022/23

	13/14 (%)	14/15 (%)	15/16 (%)	16/17 (%)	17/18 (%)	18/19 (%)	19/20 (%)	20/21 ⁴ (%)	21/22 (%)	22/23 (%)	Change since 2013/14
Walking	22	19	18	17	16	14	17	10	16	21	
Bicycle	0	1	0	1	0	0	0	0	0	0	
Car	30	30	30	36	31	35	33	38	35	36	Î
Bus	46	48	49	45	50	48	48	46	45	42	\iff
Train	2	1	1	1	2	2	1	3	2	2	-
Equal*	1	1	2	1	1	1	1	1	1	1	-
Base	613	550	576	550	411	464	444	246	695	507	

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

Urban/Rural

In 2022/23, post-primary school pupils living in urban areas (30%) were more likely to walk to/from school than those from rural areas (5%). Post-primary pupils living in rural areas (55%) were more likely to travel to/from school by bus than those living in urban areas (33%).

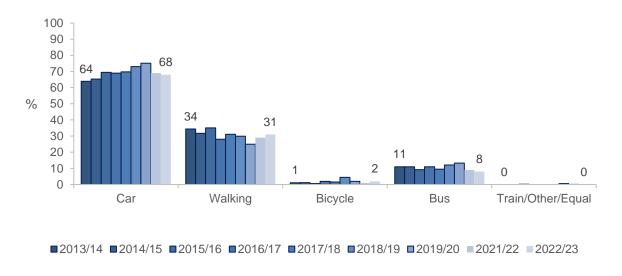
⁴ Due to changes as a result of the pandemic, comparisons are not being made to 2020/21.

Part 2: ALL MODES OF TRAVEL TO AND FROM SCHOOL

Respondents were asked to indicate <u>all</u> modes of travel their children normally used to travel to and from school (respondents could select more than one option). Please note that this question was not asked in 2020/21 due to a shortened questionnaire in response to the Covid Pandemic.

a. Primary School

Figure 3: All modes of travel to/from primary school 2013/14 to 2022/23 (%)



Base: 2022/23, 486

Amongst primary school pupils in 2022/23, 68% were driven to/from school by car, 31% walked all or part of the way, 8% took a bus, and 2% cycled all or part of the way.

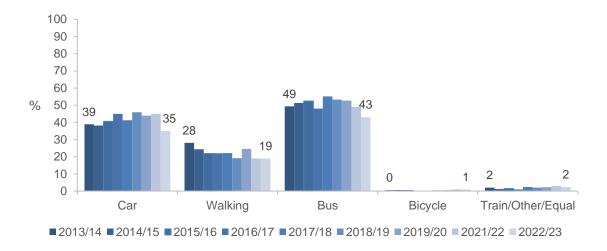
Urban/Rural

In 2022/23, a higher proportion of primary school pupils living in rural areas (80%) travelled to/from school by car than those living in urban areas (59%). Similarly, a higher proportion of those living in rural areas (11%) took the bus to/from school, compared to urban areas (6%). Those living in urban areas (40%) were more likely to walk than those living in rural areas (17%).

^{*}Percentages may sum to more than 100 due to multiple responses

b. Post-Primary School

Figure 4: All modes of travel to/from post-primary school; 2013/14 to 2022/23 (%)



Base: 2022/23, 507

In 2022/23, 43% of post-primary school pupils used the bus to travel to and from school, 35% travelled by car, 19% walked all or part of the way to or from school, and 1% cycled all or part of the way.

Urban/Rural

In 2022/23, post-primary school pupils living in urban areas (31%) were more likely to walk to/from school than those living in rural areas (6%). Those living in rural areas (64%) were more likely to take the bus than those living in urban areas (40%).

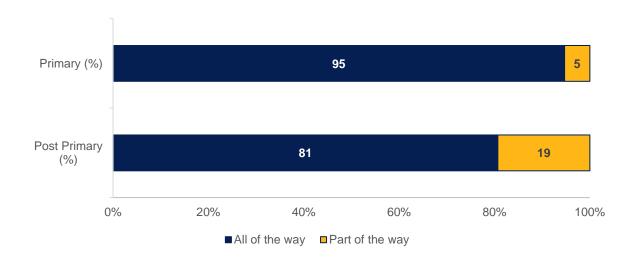
^{*}Percentages may sum to more than 100 due to multiple responses

Part 3: WALKING

Those who indicated that their child normally walked to/from school (150 primary school; 109 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.

Walking all or part of the way to/from school

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

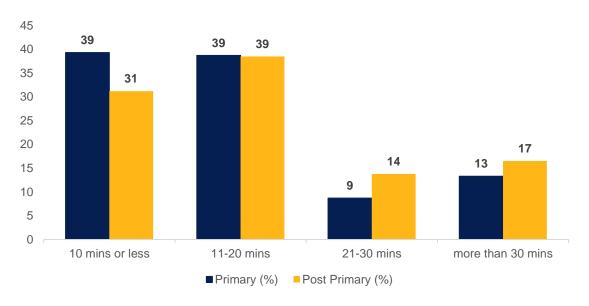


Base: primary, 150; post-primary, 109

Of the 150 primary school pupils who normally walked to school, 95% of these walked *all of the way*, which is similar to the proportion who walked *all of the way* to school in 2021/22 (91%). Of the 109 post-primary school pupils 81% walked *all of the way* to/from school in 2022/23, lower than the proportion who walked *all of the way* to school in 2021/22 (89%).

Time spent walking to/from school

Figure 6: Time spent walking to and from school per day



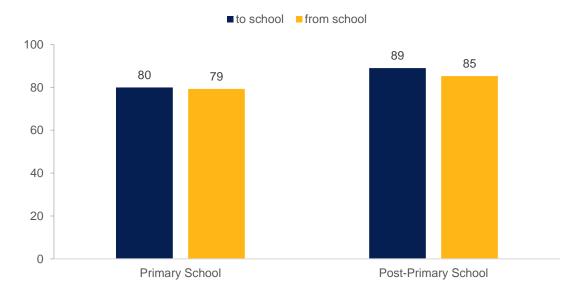
Base: primary, 150; post-primary, 109

Thirty-nine percent of primary school pupils spent 10 minutes or less, or between 11 and 20 minutes walking to and from school, while 9% spent 21-30 minutes and 13% spent more than 30 minutes walking to and from school on a daily basis.

For post-primary school pupils, 31% spent 10 minutes or less walking to and from school, 39% spent 11-20 minutes, while 14% spent 21-30 minutes and 17% spent more than 30 minutes walking to and from school.

Days per week walking to/from school

Figure 7: Proportion of pupils who walked to and from school five days per week (%)



Base: Primary, 150; post-primary, 109

Of primary school pupils who walk to/from school, 80% walk to school five days per week, while 89% walk home from school five days per week. Similarly, 85% of post-primary school pupils walk home from school while 79% walk to school five days per week.

Part 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)



^{*0} mile = less than half a mile, 1 miles = $\frac{1}{2}$ mile to less than 1 $\frac{1}{2}$ miles, etc.

Of primary school pupils, 49% lived 0-1 mile from their school, 33% lived between 2-3 miles and 19% lived 4 or more miles from their school. Of post primary school pupils 51% lived 4 or more miles away from their school, 28% lived just over a 2-3 miles away from their school and 22% lived between 0-1 miles away from home (Figure 8).

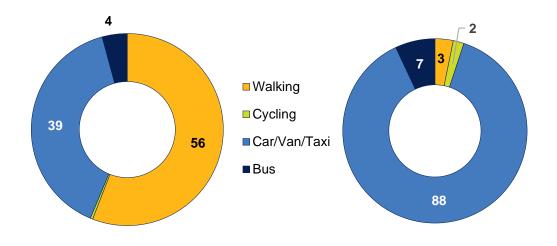
In 2022/2023, there were 794 primary schools and 192 post-primary schools in Northern Ireland⁵. Therefore, it is likely that children will live closer to primary schools than post-primary schools and these results are not unexpected. Older children may also be more likely to travel further to attend a post-primary school of their choice.

⁵ Dept. of Education website (opens in new window)

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

a. Primary School

Figure 9: Main mode of transport used by distance from pupils' home to primary school (%)



(0-1 miles) Base: 239 (2-3 miles) Base: 158

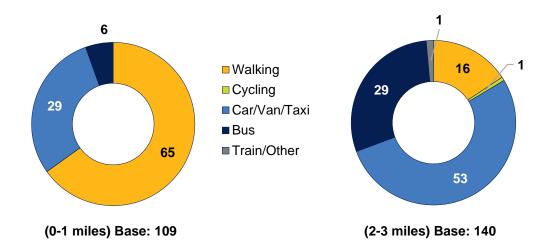
Of those primary school pupils who lived between 0-1 miles from their school 39% were taken to school by car, while 56% of those who lived 1 mile or less from their school walked and 4% travelled by bus.

Of those who lived between 2-3 miles from their school, 88% travelled by car, while 7% travelled by bus, 3% walked and 2% cycled to school (Figure 9).

For those who lived 4 miles or more from their primary school, 78% travelled by car and 16% travelled by bus.

b. Post-Primary School

Figure 10: Main mode of transport used by distance from pupils' home to post-primary school (%)



For post-primary school pupils who lived 0-1 miles from school 65% walked to/from school, 6% travelled by bus and 29% by car.

Fifty-three percent of post-primary pupils who lived between 2 and 3 miles from their school, were driven to and from school by car, 29% travelled by bus and 16% walked to/from school. (Figure 10).

Of post-primary school pupils who lived 4 or more miles from their school 64% travelled by bus.

Part 5: CYCLING

In 2022/23, 1% of primary school pupils cycled to school while less than 0.5% of post-primary school pupils cycled. 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 the proportion of children cycling to school. If the sample size is sufficiently large to allow for further analysis on cycling, then results can be included in future reports.

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.

Questions related to method of travel to/from school were commissioned for the first time in 2013/14 and have been included in the CHS every year since then. Therefore this is the tenth time that they have been asked.

The 2022/23 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 2022/23 CHS dataset contains the records of a total of 1,141 children. However, only 995 of these attended either a primary or post-primary level school at the time of interview. These records are based on the responses to the Dfl 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 Practice⁶.

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 21). 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.

⁶ Code of Practice for Statistics (opens in new window)

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

Comparison with Census 2021 Method of Travel to Study

Table 3: Comparison¹ with Census 2021 Method of Travel to Study for Northern Ireland Results for all Primary and Post Primary School Children

	Car/Van/Taxi	Walking/ On foot	Bicycle	Bus, minibus or coach (public or private)	Train	'Other' and Motorcycle, scooter or moped	All usual residents of primary school age and over in full-time education
Census 2021 ²	52%	21%	1%	25%	2%	1%	387,010
	Car/van/taxi	Walking (all or part of the way)	Bicycle	Bus	Train	'Other' and 'cannot distinguish - equal number'3	Total number of children in CHS Sample
2022/23 CHS	49%	25%	1%	25%	1%	0%	1,141

Notes: Results from the 2021 Census on Method of Travel to Study were released on the 21st March 2023 for all children so comparisons could not be made broken down by Primary and Post Primary.

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 For this Census analysis, children who were educated at home were excluded.

³ 'Cannot distinguish – equal number of journeys' was not an option in the Census and has been combined with the 'other category'

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 4: Confidence Intervals for Main Method of Travel to/from School 2022/2023: Walking and Cycling

	Estimate	95% Confidence Range +/-	Confidence Interval
Primary School Pupils who walk or cycle to school	31%	4	27% - 35%
Post primary School Pupils who walk or cycle to school	21%	4	17% - 25%

- 31% 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 27% and 35% of the Northern Ireland primary school population walked or cycled to/from school.
- 21% 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 17% and 25% of the Northern Ireland post primary population walked or cycled to/from school.

Appendix 4: Questionnaire

TRAVEL TO SCHOOL

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

CODE ALL THAT APPLY

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.

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

[MODEOTH] Please specify the other mode of transport

If more than one option selected for [MODE]

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

INTERVIEWER: 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] 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

INSTRUCTION: THIS IS TIME SPENT WALKING TO AND BACK FROM SCHOOL ON ONE TYPICAL SCHOOL DAY

ASKED IF CYCLING IS MENTIONED AT MODE OF TRANSPORT TO SCHOOL

- [C4] 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