## ROADS Service

## Travel Survey for Northern Ireland

 1999-2001

# Travel Survey for Northern Ireland 

## 1999-2001

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## Foreword



I am delighted to endorse the Travel Survey for Northern Ireland 1999-2001.

This report presents the findings of the first comprehensive survey of how and why people travel in Northern Ireland. It is a long overdue development and will allow a picture of travel behaviour to be built. It provides information on what forms of transport we use and for what purpose. It also makes available information on distances and times travelled.

The Survey is ongoing and it is hoped that the trends measured over the next number of years will be used to monitor the effectiveness of current development and transportation strategies as well as inform the formulation of future strategies.

As the Survey continues over the next number of years it will be used to detect any Northern Ireland wide changes in Travel Culture. It is expected that the survey data will be an important tool when the time comes to review the implementation and progress of the Department for Regional Development's Regional Transportation Strategy for Northern Ireland 2002-2012.

This first report confirms our reliance on the car with the average Northern Ireland resident using it for over four fifths of their total distance travelled per annum.

Finally, although acknowledgements have been given elsewhere in this report, I would like to add my own thanks to all those involved. In particular to those members of the public who participated in the survey for their continued and voluntary effort.

## G W AlLISTER

Director of Engineering
Roads Service

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Thanks are also due to the interviewers for conducting the fieldwork and achieving the required response rates.
Finally, the help of all those members of the public who gave their time and co-operation is gratefully acknowledged.

## Symbols and conventions

## Rounding of figures

In tables where figures have been rounded to the nearest final digit, there may be an apparent slight discrepancy between the sum of the constituent items and the total shown.

It is assumed in this report that there are 52.14 weeks in the year.
The following symbols have been used throughout:
.. = not available/insufficient number of cases in sample

- $\quad=$ negligible (less than half the final digit shown)
$0=$ nil
The following conversion factors may be of use:
1 mile $=\quad 1.609$ kilometres
1 kilometre $=0.6214$ miles


## Key Definitions

(A fuller list of definitions is given in Appendix A).
Travel only includes personal travel by residents of Northern Ireland within Northern Ireland.

A journey is a one-way course of travel having a single main purpose.
For the purpose of this report car travel includes travel in all 3 or 4 wheeled cars.
Mode is the form of transport used for a stage of a trip, whilst the main mode is that used for the greatest length of the trip.

For the purpose of this report adults are normally people aged 16 or more. Analyses of car driving licence holding and car ownership are restricted to those aged 17 or more.

Commuting includes journeys to a usual place of work from home, or from work to home.

Shopping includes all journeys to shops or from shops to home even if there was no intention to buy.

Education includes journeys to or from school or college etc by full time students, students on day release and part time students following vocational courses.

Personal business includes visits to services for example hairdressers, launderettes, dry cleaners, betting shops, solicitors, banks, estate agents, libraries, churches. It also includes visits for medical consultations, treatment, for eating or drinking if respondent is alone or at work.

An escort journey is one made by a traveller for no other purpose than to escort or accompany another person e.g. a parent taking a child to school.

## Key points

## In 1999-2001:-

- On average, Northern Ireland residents travelled 5,985 miles per year over the three-year reporting period.
- Each person made an average of 978 journeys each year.
- Car travel made up just over four fifths ( $82 \%$ ) of the total distance travelled.
- Commuting accounted for almost one fifth (19\%) of the total distance travelled.
- We walked on average 146 miles each year, just over $2 \%$ of our total distance travelled.
- Men and women made similar number of trips per year (1,015 and 1,017 respectively).
- Men travelled $34 \%$ further than women, averaging 7,661 miles a year, compared to 5,721 for women.
- $80 \%$ of men (aged 17 or over) and $60 \%$ of women held full car driving licences.
- The longest average journey lengths were by train (Northern Ireland Railways) at 21.3 miles, although people made only 3 of these trips on average per year. Car journeys averaged just over 7 miles long.
- One fifth of all journeys were under a mile in length and walking trips made up $69 \%$ of these.
- Car travel was the dominant mode of transport for all journeys greater than 1 mile in length.
- Children aged 16 and under made nearly six in ten (59\%) of their trips as car passengers, with most of the rest on foot (25\%).
- Women made $20 \%$ of their trips on foot, compared to $15 \%$ for men.
- One quarter of trips were made for leisure purposes, nearly one fifth (19\%) to and from the shops, $14 \%$ for commuting and $15 \%$ for personal business.
- In terms of distance, $30 \%$ was for leisure purposes, $19 \%$ for commuting, $14 \%$ for shopping and $11 \%$ for personal business.
- Men made just over one fifth ( $22 \%$ ) of their journeys commuting to and from work, with an additional $8 \%$ travelling on business. Women made $15 \%$ of their journeys to and from work and $2 \%$ on business.
- Nearly one quarter (24\%) of women's journeys were to shop, compared to $17 \%$ of men's.
- $7 \%$ of households in Northern Ireland were able to get a bus from their nearest bus stop every 15 minutes (over a quarter ( $27 \%$ ) said they didn't know how often they could get a bus).
- We spent a total of just under 13 days each year (or approximately 50 minutes per day) travelling within Northern Ireland. Roughly $81 / 2$ days (or $66 \%$ ) of this time was spent travelling by car and just over 2 days walking.
- Those living in the Belfast area travelled an average of 3,776 miles per year, compared to 6,317 and 6,438 for those in the East and West of Northern Ireland respectively.


## Introduction

This is the first Travel Survey for Northern Ireland (TSNI) report the purpose of which is to build up a picture of how and why people travel in Northern Ireland.

## Background to the Travel Survey for Northern Ireland

The Travel Survey for Northern Ireland covers the period March 1999 to December 2001. The methodology used in the Survey is based on the National Travel Survey (NTS), as used in Great Britain. The NTS was first commissioned in 1965 by the Ministry of Transport and repeated four times between 1966 and 1986. The NTS was launched as a continuous survey in GB in 1987.

The TSNI is carried out for Roads Service, an executive agency within the Department for Regional Development, by the Central Survey Unit of the Northern Ireland Statistics and Research Agency.

The TSNI surveys around 145 addresses each month. (The sample was increased slightly during summer months).

The number of useable households (includes either fully co-operating or partially cooperating households) averaged 84 per month during the time period 1999-2001.

Information for the survey is collected using 2 methods. Individuals complete a sevenday travel diary, which collects information on all journeys 50 metres or more in length. Details include information such as purpose of journey, length of journey and method of travel. Personal information is also collected in a computer interview. This allows details such as age, sex, working status, etc. to be linked to all journey data.

In order to minimise the burden of completing the travel diary, information on short walks under one mile in length are only collected on day one. The data on short walks is then grossed for the full travel week so that results in this report include data on short walks for the full seven-day period.

## Uses of the Survey

The TSNI will be the only source of information on how and why people in Northern Ireland use different forms of transport to meet their travel needs. It will be an important source of information for many years to come and will be used to measure the effectiveness of current transport policy and help inform the development of future policy.

## Time period covered

The period covered in most tables in this bulletin is almost three years, March 1999 - December 2001, as the chosen sample size of this continuous survey is not large enough to provide reliable information about journeys on an annual basis. However, for certain stable groups of the sample, information for shorter periods of time is shown (see table 1.2).

## Topics covered in this report

The report is sub divided into the following chapters, 'Trends in personal travel', 'How we travel', and 'Why we travel'. Other topics linked to travel, including vehicle mileage, bicycle ownership and access to public transport is included at the end of the report.

In general the majority of tables published in Sections 1 to 4 can be compared with the correspondingly numbered table in the National Travel Survey 1998/2000, Department of Transport, Local Government and the Regions.

## Sample design

A sample of approximately 1740 addresses per year is drawn from the Valuation and Lands Agency list of addresses. People living in institutions (though not in private households in such institutions) are excluded. The complete list of private addresses is stratified into three regions - Belfast, the East of Northern Ireland and the West of Northern Ireland, and a random sample is drawn from each stratum. A listing of the district council areas included in each region is provided in Appendix A.

## Sampling errors

Because estimates made from a sample survey depend upon the particular sample chosen, they generally differ from the true values of the population. This is not usually a problem when considering large samples (such as all car journeys in Northern Ireland over a three year period), but may give misleading information when considering data from small samples, for example cyclists in a particular age band.

In general, the larger the sample size, the smaller the sample standard error. For this reason, small sub samples of under 500 households, individuals and vehicles have not been used to generate estimates. The errors for journey and stage estimates tend to be larger than we might expect from the sheer number of them. This is due to the fact that individuals within households tend to make similar journeys. For this reason, for journeys and stage estimates even more caution is exercised, i.e. numbers under 5000 have not been used to generate estimates.

## Section 1: Summary of basic travel statistics

Table 1.1 provides information taken from the 1999 to 2001 databases and gives the sample numbers on which analyses are based.

Table 1.1: Unweighted sample numbers on which analyses are based.

|  |  |  |  | Numbers |
| :--- | :---: | :---: | :---: | :---: |
|  | $\mathbf{1 9 9 9}$ | $\mathbf{2 0 0 0}$ | $\mathbf{2 0 0 1}$ | $\mathbf{1 9 9 9} \mathbf{-}$ |
|  | 911 | 1002 | 934 | 2847 |
| Households | 2461 | 2666 | 2294 | 7421 |
| Individuals | 632 | 675 | 526 | 1833 |
| Children (<16) | 1825 | 1987 | 1766 | 5578 |
| Adults (16+) | 1035 | 1122 | 1014 | 3171 |
| Motor vehicles | 987 | 1085 | 986 | 3058 |
| Cars* | 938 | 1040 | 933 | 2911 |
| 4-wheeled cars | 41195 | 44720 | 37380 | 123295 |
| Journeys | 42140 | 45782 | 38329 | 126251 |
| Stages |  |  |  |  |

* This definition of cars includes 4 -wheeled and 3-wheeled cars, Land Rovers, Jeeps, minibuses,
motor caravans and light vans.

Table 1.2 contains basic travel statistics for Northern Ireland. It also contains corresponding data from the 1998/2000 Great Britain Travel Survey (Reference National Travel Survey 1998/2000, Department of Transport, Local Government and the Regions).

Table 1.2: Basic travel statistics

|  |  |  | Numbers/percentage |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1999 | 2000 | 2001 | $\begin{gathered} 1999- \\ 2001 \end{gathered}$ | $\begin{gathered} \text { GB }{ }^{1} \\ 1998-2000 \end{gathered}$ |
| Yearly averages for NI residents: |  |  |  |  |  |
| No. of journeys | 988 | 991 | 952 | 978 | 1,030 |
| No. of journeys (1 mile+) | 792 | 794 | 769 | 786 | 768 |
| Miles travelled | 6,003 | 5,997 | 5,953 | 5,985 | 6,843 |
| Miles travelled by car | 4,913 | 4,912 | 4,842 | 4,891 | 5,573 |
| Hours travelled | 306 | 305 | 301 | 304 | 360 |
| Vehicles per household | 1.14 | 1.12 | 1.09 | 1.11 | 1.08 |
| Cars per household ${ }^{2}$ | 1.08 | 1.08 | 1.06 | 1.07 | 1.04 |
| Car per adult (16+) ${ }^{\mathbf{2}}$ | 0.54 | 0.55 | 0.56 | 0.55 | 0.57 |
| \% of men with full car driving licence | 80 | 81 | 79 | 80 | 82 |
| \% of women with full car driving licence | 58 | 61 | 60 | 60 | 60 |
| Individuals per household | 2.7 | 2.7 | 2.5 | 2.6 | 2.33 |
| \% of households with bus service at least every 15 minutes | $\begin{gathered} 7 \\ \text { (25\% don't } \\ \text { know) } \end{gathered}$ | 8 <br> (26\% don't know) | $\begin{gathered} 7 \\ (29 \% \text { don't } \\ \text { know) } \end{gathered}$ | 7 <br> (27\% don't know) |  |

Northern Ireland demographic data for survey periods:
Population ${ }^{3}$
1,691,800
1,697,800
$1,685,267$
5,074,867
57,805,000
${ }^{1}$ National Travel Survey 1998/2000, Department of Transport Local Government and the Regions.
${ }^{2}$ This definition of cars includes 4 -wheeled and 3-wheeled cars, Land Rovers, Jeeps, minibuses, motor caravans and light vans.
${ }^{3}$ The NI figures for 1999 and 2000 are mid year population estimates, whereas the 2001 figure is an exact census day count.

## Section 2: Trends in personal travel

Tables and figures in this section show the pattern in personal travel over the last 3 years.

## Trends in distance, journeys and time spent travelling (table 2.1)

- The average distance travelled each year by residents of Northern Ireland has not changed considerably over the three-year reporting period (1999-2001).
- We travelled on average 6,003 miles in 1999, 5,997 in 2000 and 5,953 in 2001; this averaged out at 5,985 miles each year for the three-year period.
- The average journey length also remained similar over the three years at 6.1 miles long.
- The average number of journeys per person each year was 978 over the three-year period, which worked out at under 3 journeys per person per day.
- The average time each person spent travelling over the three years was 304 hours per year, approximately 50 minutes a day.

Figure 2.1: Average distance per person per year by mode: 1999-2001


Table 2.1: Distance, journeys \& hours travelled per person per year: 1999-2001

|  | Distance travelled <br> (miles) | Number of journeys | Time <br> taken | Average <br> journey <br> length |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All <br> Journeys | Journeys <br> $\mathbf{1}$ mile + | All <br> Journeys | Journeys <br> $\mathbf{1}$ mile + | All <br> Journeys | All <br> Journeys |
| $\mathbf{1 9 9 9}$ | 6,003 | 5,924 | 988 | 792 | 306 | 6.1 |
| $\mathbf{2 0 0 0}$ | 5,997 | 5,913 | 991 | 794 | 305 | 6.1 |
| $\mathbf{2 0 0 1}$ | 5,953 | 5,871 | 952 | 769 | 301 | 6.3 |
| $\mathbf{1 9 9 9 -}$ | 5,985 | 5,904 | 978 | 786 | 304 | 6.1 |
| $\mathbf{2 0 0 1}$ |  |  |  |  |  |  |

Figure 2.2: Journeys per person per year by main mode: 1999-2001


Figure 2.3: Time spent travelling per person per year by main mode: 1999-2001


## Trends in car ownership (table 2.2)

- Just over one quarter (26\%) of households in Northern Ireland did not have access to a car over the three-year reporting period (1999-2001). 46\% of households in Belfast did not have access to a car, compared with $22 \%$ and $23 \%$ in the East and West regions respectively.
- $54 \%$ of households in Belfast had access to one or more cars compared to $78 \%$ and $77 \%$ in the East and West of Northern Ireland respectively.
- Overall $29 \%$ of households in Northern Ireland had access to two or more cars. Regionally $16 \%$ of Belfast households had access to two or more cars, compared to $33 \%$ of households in the East and $29 \%$ in the West.
- The average number of cars per household in Northern Ireland was 1.07 in 1999-2001, with Belfast having 0.72 cars per household compared to 1.17 and 1.12 for the East and West respectively.
- The average number of cars per household remained steady over the 3 year period.

Table 2.2: Household car ownership by area of residence: 1999-2001

|  | No <br> Car | One <br> car | Two <br> cars | Three <br> or <br> more | All <br> households | Cars per <br> household | Cars <br> per <br> adult |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{1 7 + \text { + }}$ |  |  |  |  |  |  |  | (..

## Trends in driving licence holding (table 2.3)

- In 1999-2001, 80\% of men (aged 17 or over) and $60 \%$ of women held full car driving licences.
- There was a clear difference in licence holding between sexes at all age groups.
- There was also an increase in licence holding between the 17-29 and the 30-39 age group.
- In 1999-2001, 66\% of young males (17-29) and 53\% of young females held full driving licences. However, in the 70 or over age group, $70 \%$ of the male population had a full licence compared to $23 \%$ of females in the same age group.

Table 2.3: Driving licence holders by age and sex: 1999-2001
Percentage

|  | Male | Female | Adults |
| :--- | :---: | :---: | :---: |
| $\mathbf{1 7 - 2 9}$ | 66 | 53 | 59 |
| $\mathbf{3 0 - 3 9}$ | 87 | 77 | 81 |
| $\mathbf{4 0 - 4 9}$ | 85 | 77 | 81 |
| $\mathbf{5 0 - 5 9}$ | 89 | 68 | 78 |
| $\mathbf{6 0 - 6 9}$ | 83 | 49 | 65 |
| $\mathbf{7 0 +}$ | 70 | 23 | 42 |
| All Adults | 80 | 60 | 69 |

Figure 2.4: Driving licence holders by age and sex: 1999-2001


## Section 3: How People Travel

Tables 3.1 to 3.6 show details of how people travelled in Northern Ireland in 1999-2001.

## Distance travelled (table 3.1)

- On average, we travelled 5,985 miles each year.
- Over four fifths (82\%) of the total distance travelled in Northern Ireland was by car.
- Half of the total distance travelled was as a car driver and $31 \%$ as a car passenger.
- On average each person walked 146 miles per year, this was $2 \%$ of the average total distance travelled.
- Only 6\% of the total distance travelled was made on public transport (this was mostly on Ulsterbus).

Table 3.1: Average distance travelled by mode of travel: 1999-2001

|  |  |
| :--- | :---: |
|  | Miles per person per year |
|  |  |
| Walk | 146 |
| Bicycle | 19 |
| Car driver | 2985 |
| Car passenger | 1873 |
| Car undefined | 33 |
| Motorcycle | 20 |
| Other privare | 345 |
| Citybus | 41 |
| Ulsterbus | 266 |
| Other bus | 108 |
| NIR | 53 |
| Black taxi | 7 |
| Taxi | 66 |
| Other public | - |
| Undefined mode | 25 |
| All modes | 5985 |

## Number and length of journeys (table 3.2)

- On average people made 978 journeys per year.
- Car travel was the dominant mode accounting for $69 \%$ of all journeys made.
- We made on average 407 trips as a car driver per year and 262 as a car passenger.
- Walking journeys represented nearly one fifth (19\%) of the total number of journeys made each year.
- The average journey length was 6.1 miles.
- The longest average journey length was by train at 21.3 miles, although only 3 of these were made on average each year.
- The average car journey was just over 7 miles long.
- The average walking trip length was 0.7 miles.

Table 3.2: Journeys and average journey length by main mode: 1999-2001

|  |  |  |
| :--- | :---: | :---: |
|  | Journeys per person per year | Average journey length |
|  |  |  |
| Walk | 189 | 0.7 |
| Bicycle | 7 | 2.6 |
| Car driver | 407 | 7.3 |
| Car passenger | 262 | 7.1 |
| Car undefined | 5 | 7.3 |
| Motorcycle | 2 | 8.9 |
| Other private | 26 | 13.1 |
| Citybus | 11 | 3.8 |
| Ulsterbus | 32 | 8.9 |
| Other bus | 11 | 9.8 |
| NIR | 3 | 21.3 |
| Black taxi | 2 | 3.2 |
| Taxi | 17 | 3.8 |
| Other public | - | .. |
| Undefined | 3 | 7.0 |
| mode | 978 | 6.1 |
| All modes |  |  |
|  |  |  |

## Distribution of journey length (table 3.3)

- One fifth of all journeys made were less than 1 mile. Nearly seven in ten ( $69 \%$ ) of these 'short' journeys were on foot.
- Car was the main mode of transport for all journeys over 1 mile.
- Ulsterbus journeys were mainly between 2 and 25 miles in length.
- Citybus journey lengths were mostly between 2 and 5 miles.
- Few rail journeys were less than 10 miles long.

Table 3.3: Journeys per person per year by distance and main mode:1999-2001
Number

|  | $\begin{aligned} & <1 \\ & \text { mile } \end{aligned}$ | 1 to 2 miles | 2 to 5 miles | $\begin{gathered} 5 \text { to } \\ 10 \\ \text { miles } \end{gathered}$ | $\begin{gathered} 10 \text { to } \\ 25 \\ \text { miles } \\ \hline \end{gathered}$ | $\begin{gathered} 25 \\ \text { to } 50 \\ \text { miles } \end{gathered}$ | Over 50 miles | All journeys |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Walk | 133 | 43 | 13 | 1 | - | - | - | 189 |
| Bicycle | 1 | 2 | 3 | 1 | - | - | - | 7 |
| Car driver | 31 | 69 | 132 | 82 | 70 | 19 | 5 | 407 |
| Car passenger | 22 | 47 | 88 | 50 | 40 | 11 | 4 | 262 |
| Car undefined | - | 1 | 2 | 1 | 1 | - | - | 5 |
| Motorcycle | - | - | - | 1 | - | - | - | 2 |
| Other private | 1 | 3 | 5 | 6 | 6 | 3 | 1 | 26 |
| Citybus | - | 2 | 7 | 2 | - | - | - | 11 |
| Ulsterbus | 1 | 3 | 9 | 9 | 9 | 1 | - | 32 |
| Other bus | 1 | 1 | 4 | 2 | 2 | 1 | - | 11 |
| NIR | - | - | - | - | 1 | 1 | - | 3 |
| Black taxi | - | 1 | 1 | - | - | - | - | 2 |
| Taxi | 1 | 4 | 8 | 2 | 1 | - | - | 17 |
| Other public | - | - | - | - | - | - | - | 0 |
| Undefined mode | - | 1 | - | 2 | - | - | - | 3 |
| All modes | 192 | 174 | 273 | 159 | 132 | 36 | 11 | 978 |

## Time spent travelling (table 3.4)

- The average person spent 304 hours (or approximately 13 days) travelling each year within Northern Ireland during 1999-2001 (this was about 50 minutes per day).
- Around $81 / 2$ days of this time was spent travelling by car (averaging 33 minutes a day).
- An average of just over 2 days each year were spent walking.
- Public transport journey times ranged from an average of 57 minutes for NIR trains to 22 minutes for black taxis.
- Overall, the average journey time was 19 minutes.
- Rail journeys were the longest in duration averaging 57 minutes.
- The average walking journey time was 16 minutes.
- The average car journey took 18 minutes.
- The average Citybus journey took 27 minutes.
- The average Ulsterbus journey took 33 minutes.

Table 3.4: Journey time by main mode: 1999-2001
Hours/minutes

|  | Journey time per person per <br> year (hours) | Average journey time <br> (minutes) |
| :--- | :---: | :---: |
| Walk | 50 | 16 |
| Bicycle | 3 | 22 |
| Car driver | 121 | 18 |
| Car passenger | 78 | 18 |
| Car undefined | 2 | 28 |
| Motorcycle | 1 | 22 |
| Other private | 12 | 27 |
| Citybus | 5 | 27 |
| Ulsterbus | 18 | 33 |
| Other bus | 6 | 32 |
| NIR | 3 | 57 |
| Black taxi | 1 | 22 |
| Taxi | 4 | 15 |
| Other public | - | .. |
| Undefined | 1 | 22 |
| mode | 304 | 19 |
| All modes |  |  |

## Distance travelled by area (table 3.5)

- The distance travelled by those in the Belfast area was $37 \%$ lower than the Northern Ireland average.
- For those living in the Belfast area, $79 \%$ of the total distance travelled was by car, $10 \%$ by public transport and $5 \%$ on foot.
- For those living in the Eastern area, $84 \%$ of the total distance travelled was by car, $6 \%$ by public transport and $2 \%$ on foot.
- $\quad$ Seventy nine per cent of the total distance travelled for residents in the Western area was by car, $6 \%$ by public transport and $2 \%$ on foot.

Table 3.5: Average distance travelled per person per year by mode and area: 1999 - 2001

|  |  |  |  | Miles |
| :--- | :---: | :---: | :---: | :---: |
|  | Belfast | East | West | All Areas |
| Walk | 186 | 143 | 133 | 146 |
| Bicycle | 13 | 24 | 14 | 19 |
| Car driver | 1762 | 3361 | 3009 | 2985 |
| Car passenger | 1177 | 1934 | 2067 | 1873 |
| Car undefined | 48 | 24 | 38 | 33 |
| Motorcycle | 20 | 22 | 17 | 20 |
| Other private | 49 | 287 | 526 | 345 |
| Citybus | 151 | 34 | 8 | 41 |
| Ulsterbus | 132 | 254 | 332 | 266 |
| Other bus | 67 | 72 | 165 | 108 |
| NIR | 52 | 83 | 18 | 53 |
| Black taxi | 23 | 6 | 1 | 7 |
| Taxi | 76 | 55 | 75 | 66 |
| Other public | 1 | - | - | - |
| Undefined mode | 20 | 17 | 36 | 25 |
| All modes | 3776 | 6317 | 6438 | 5985 |

## Variations in travel by age and sex (tables 3.6a \& b)

- Men and women made similar numbers of trips each year, an average of 1,015 and 1,017 trips per year respectively.
- Women aged 60 and over made less trips than men of the same age, 701 compared with 888, whereas women in the 16-29 age group made more trips than men of this age.
- Children under 16 made just over four fifths ( $85 \%$ ) of the journeys that adults made.
- Men travel further than women, averaging 7,661 miles a year compared with 5,721 miles for women. The difference in distance travelled by each gender was least among 16-29 year olds.
- Children under 16 made $59 \%$ of their trips as car passengers and $25 \%$ by foot.
- Car was the main mode of transport for both men and women.
- Men and women under 60 made more trips as car drivers than as car passengers in all age groups.
- Women aged 60 and over were the only adult grouping that made more trips as car passengers rather than drivers.
- Overall, adult women made $20 \%$ of their trips on foot, compared to $15 \%$ of men.
- Overall adults made only $3 \%$ of their trips by public transport compared to children who made $9 \%$ of their trips by public transport.

Table 3.6a: Journeys per person per year by main mode, age and sex: 1999-2001
Percentage/Number

|  |  | Males |  |  |  | Females |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Children $<16$ | 16-29 | 30-59 | 60+ | All adult males | 16-29 | 30-59 | 60+ | All adult females | All adults | All persons |
| Walk | 25 | 17 | 13 | 18 | 15 | 24 | 16 | 28 | 20 | 18 | 19 |
| Bicycle | 1 | 1 | 1 | - | 1 | - | - | - | - | 1 | 1 |
| Car driver | 0 | 42 | 67 | 64 | 61 | 33 | 58 | 25 | 47 | 53 | 42 |
| Car passenger | 59 | 19 | 7 | 9 | 10 | 28 | 19 | 37 | 25 | 18 | 27 |
| Car undefined | 0 | - | 1 | 1 | 1 | - | 1 | 1 | 1 | 1 | - |
| Motorcycle | 0 | 1 | 1 | - | 1 | - | - | - | - | - | - |
| Other private | 1 | 7 | 7 | 4 | 6 | - | 1 | - | 1 | 3 | 3 |
| Citybus | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 |
| Ulsterbus | 8 | 5 | 1 | 1 | 2 | 5 | 1 | 2 | 2 | 2 | 3 |
| Other bus | 3 | 1 | - | - | - | 1 | - | 1 | 1 | 1 | 1 |
| NIR | - | 1 | - | - | - | 1 | - | - | - | - | - |
| Black taxi | - | - | - | - | - | - | - | - | - | - | - |
| Taxi | 2 | 3 | 1 | 1 | 1 | 4 | 1 | 2 | 2 | 2 | 2 |
| Other public | - | 0 | - | - | - | 0 | 0 | - | - | - | - |
| Undefined mode | - | - | - | 1 | - | - | - | 1 | - | - | - |
| All modes | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| All Journeys | 862 | 915 | 1109 | 888 | 1015 | 1046 | 1159 | 701 | 1017 | 1016 | 978 |

Table 3.6b: Distance travelled per person per year by main mode, age and sex: 1999-2001

Miles

|  |  | Males |  |  |  | Females |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Children $<16$ | 16-29 | 30-59 | 60+ | All adult males | 16-29 | 30-59 | 60+ | All adult females | All adults | $\begin{gathered} \text { All } \\ \text { persons } \end{gathered}$ |
| Walk | 132 | 123 | 119 | 114 | 119 | 174 | 151 | 113 | 147 | 134 | 133 |
| Bicycle | 19 | 20 | 44 | 10 | 31 | 15 | 8 | 1 | 8 | 18 | 19 |
| Car driver | 0 | 3641 | 6322 | 3744 | 5132 | 2778 | 4009 | 977 | 2964 | 3967 | 2983 |
| Car passenger | 3029 | 1398 | 757 | 739 | 897 | 2228 | 1926 | 1859 | 1976 | 1477 | 1863 |
| Car undefined | 0 | 23 | 64 | 49 | 51 | 36 | 43 | 38 | 40 | 45 | 34 |
| Motorcycle | 0 | 84 | 62 | 3 | 53 | 6 | 3 | 0 | 3 | 26 | 20 |
| Other private | 40 | 1072 | 1093 | 249 | 896 | 50 | 81 | 24 | 60 | 447 | 346 |
| Citybus | 44 | 47 | 37 | 22 | 36 | 73 | 37 | 37 | 45 | 41 | 42 |
| Ulsterbus | 483 | 550 | 69 | 60 | 176 | 634 | 128 | 170 | 251 | 216 | 282 |
| Other bus | 223 | 141 | 62 | 62 | 79 | 137 | 33 | 81 | 69 | 74 | 111 |
| NIR | 22 | 130 | 90 | 12 | 81 | 147 | 31 | 43 | 60 | 70 | 58 |
| Black taxi | 6 | 10 | 7 | 2 | 7 | 8 | 10 | 6 | 8 | 8 | 7 |
| Taxi | 47 | 160 | 54 | 28 | 72 | 172 | 41 | 42 | 71 | 71 | 65 |
| Other public | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Undefined mode | 23 | 7 | 37 | 37 | 30 | 12 | 22 | 22 | 20 | 25 | 24 |
| All modes | 4069 | 7404 | 8817 | 5131 | 7661 | 6469 | 6523 | 3414 | 5721 | 6619 | 5985 |

## Section 4: Why people travel

The main reasons or purpose for personal travel are given in this Section.

## Travel by purpose (tables 4.1, 4.2a \& b)

- One quarter (25\%) of all journeys in 1999-2001 were for leisure (e.g. to visit friends, to take part in entertainment or sport activities, to go on holiday/day trips and other journeys including 'just walk').
- Nearly one in five (19\%) trips were to and from the shops.
- $14 \%$ of journeys made were to and from work.
- Journeys to services, such as the bank, doctor or library (i.e. other personal business trips) made up about $15 \%$ of all trips.
- $30 \%$ of the total distance travelled was for leisure purposes.
- Nearly one fifth (19\%) of the distance travelled was going to and from work.
- Nearly one tenth (9\%) of the total distance travelled was for business travel.
- $14 \%$ of the distance travelled was made on shopping trips.
- On average the longest journeys made were those to go on holiday (travel measured within Northern Ireland) at an average of 28.4 miles.
- Business journeys were over twice as long ( 13.7 miles) as the average journey length (6.1 miles).

Figure 4.1: Journey length by purpose: 1999-2001


Table 4.1 Travel per person per year by journey purpose: 1999-2001

|  | Journeys per <br> person per <br> year | Miles per <br> person per <br> year | Average <br> iourney <br> length |
| :--- | :---: | :---: | :---: |
| Commuting | 141 | 1108 | 7.9 |
| Business | 38 | 524 | 13.7 |
| Education | 85 | 356 | 4.2 |
| Escort education | 48 | 112 | 2.3 |
| Shopping | 185 | 823 | 4.5 |
| Other escort | 78 | 402 | 5.2 |
| Personal business | 142 | 683 | 4.8 |
| Visit friends at private home | 107 | 774 | 7.2 |
| Visit friends elsewhere | 26 | 145 | 5.7 |
| Entertainment/public social <br> activities | 38 | 285 | 7.5 |
| Sport participate | 19 | 127 | 6.6 |
| Holiday base | 6 | 180 | 28.4 |
| Day trip | 18 | 266 | 14.6 |
| Other including just walk | 30 | 43 | 1.5 |
| Undefined purpose | 17 | 157 | 9.2 |
| Total | 978 | 5985 | 6.1 |
| Journeys per worker per year |  |  |  |
| Commuting | 329 | 2654 | 8.1 |
| Business | 93 | 1281 | 13.8 |

Figure 4.2: Number of journeys per person per year by purpose: 1999-2001


Figure 4.3: Distance travelled per person per year by journey purpose: 1999-2001


Table 4.2a Journeys per person per year by main mode and purpose: 1999-2001
Number

|  | Walk | Car driver | Car passenger | Public Transport ${ }^{1}$ | Other ${ }^{2}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Commuting | 15 | 81 | 21 | 8 | 15 | 141 |
| Business | 2 | 24 | 2 | 0 | 10 | 38 |
| Education | 25 | 2 | 28 | 22 | 9 | 85 |
| Escort education | 8 | 29 | 9 | 0 | 1 | 48 |
| Shopping | 46 | 76 | 47 | 9 | 7 | 185 |
| Other escort | 5 | 50 | 19 | 0 | 2 | 78 |
| Personal business | 25 | 60 | 49 | 3 | 7 | 142 |
| Visit friends at private home | 20 | 41 | 38 | 2 | 5 | 107 |
| Visit friends elsewhere | 5 | 8 | 9 | 1 | 3 | 26 |
| Entertainment/public social activities | 5 | 11 | 16 | 1 | 5 | 38 |
| Sport participate | 2 | 8 | 7 | 0 | 1 | 19 |
| Holiday base | 1 | 2 | 3 | 0 | 1 | 6 |
| Day trip | 0 | 6 | 9 | 0 | 3 | 18 |
| Other including just walk | 29 | 0 | 0 | 0 | 0 | 30 |
| Undefined purpose | 2 | 8 | 5 | 1 | 2 | 17 |
| Total | 189 | 407 | 262 | 48 | 72 | 978 |

Table 4.2b Distance travelled per person per year by main mode and purpose: 1999-2001

|  | Walk | Car <br> driver | Car passenger | Public Transport ${ }^{1}$ | Other ${ }^{2}$ | Miles |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | All modes |
| Commuting | 12 | 751 | 134 | 73 | 139 | 1108 |
| Business | 1 | 320 | 25 | 7 | 171 | 524 |
| Education | 15 | 18 | 90 | 177 | 55 | 356 |
| Escort education | 4 | 79 | 23 | 1 | 5 | 112 |
| Shopping | 27 | 393 | 318 | 48 | 36 | 823 |
| Other escort | 3 | 259 | 121 | 4 | 16 | 402 |
| Personal business | 13 | 358 | 255 | 16 | 42 | 683 |
| Visit friends at private home | 12 | 363 | 348 | 26 | 25 | 774 |
| Visit friends elsewhere | 3 | 55 | 68 | 3 | 16 | 145 |
| Entertainment/public social activities | 4 | 103 | 132 | 8 | 39 | 285 |
| Sport participate | 2 | 62 | 47 | 2 | 14 | 127 |
| Holiday base | 1 | 52 | 104 | 11 | 13 | 180 |
| Day trip | 0 | 88 | 140 | 8 | 30 | 266 |
| Other including just walk | 36 | 4 | 2 | 1 | 0 | 43 |
| Undefined purpose | 1 | 77 | 57 | 7 | 15 | 157 |
| Tołal | 133 | 2983 | 1863 | 389 | 618 | 5985 |

${ }^{1}$ Citybus, Ulsterbus, Northern Ireland Railways, Black Taxi and other public transport.
${ }^{2}$ Bicycle, car undefined, motorcycle, other private, other bus, taxi, undefined mode

## Purpose of travel by age and sex (tables 4.3 a \& b)

- Although men and women made similar numbers of journeys (an average of 1,015 for men and 1,017 for women), their reasons for travelling were different.
- Men made the largest proportion of their journeys going to and from work (22\%) with an additional $8 \%$ on business. For women, $15 \%$ of their journeys were to and from work, and $2 \%$ on business.
- $\quad$ Shopping was the main reason for women travelling and this comprised nearly one quarter (24\%) of the total journeys made, compared to $17 \%$ for men.
- Differences between purpose of journey for men and women were most evident in the 3059 age group.
- Nearly one third ( $32 \%$ ) of all journeys for those aged 16 and under were for education.
- Men and women made similar numbers of personal business journeys (includes journeys to the bank, post office, library, church, playgroup, doctor or optician).
- Shopping and personal business trips became more frequent with age. For women aged 60 and over, $62 \%$ of journeys were for shopping or personal business.
- Escort education journeys are mainly made by adults taking children to school. Women, and especially those in the 30-59 age group, were more likely to make these journeys than men.
- Women aged 30-59 made over one fifth ( $21 \%$ ) of their journeys accompanying someone (i.e. escort education and other escort) compared to $12 \%$ for men of the same age.

Table 4.3a Journeys per person per year by age, sex and purpose: 1999-2001


Table 4.3b Distance travelled per person per year by age, sex and purpose: 1999-2001
Miles

|  |  | Males |  |  |  | Females |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Children $<16$ | 16-29 | 30-59 | $60+$ | All adult males | 16-29 | 30-59 | 60 + | All adult females | All adults | All persons |
| Commuting | 15 | 2390 | 2531 | 397 | 2014 | 1709 | 1125 | 122 | 1000 | 1469 | 1108 |
| Business | 1 | 857 | 1808 | 445 | 1284 | 101 | 323 | 1 | 192 | 697 | 524 |
| Education | 966 | 697 | 12 | 9 | 166 | 587 | 26 | 4 | 146 | 155 | 356 |
| Escort education | 86 | 16 | 100 | 45 | 69 | 53 | 281 | 23 | 165 | 120 | 112 |
| Shopping | 495 | 495 | 799 | 1018 | 780 | 902 | 1208 | 892 | 1060 | 930 | 823 |
| Other escort | 331 | 227 | 536 | 293 | 411 | 329 | 629 | 138 | 437 | 425 | 402 |
| Personal business | 442 | 406 | 865 | 1039 | 801 | 553 | 855 | 623 | 728 | 762 | 683 |
| Visit friends at private home | 700 | 692 | 744 | 727 | 728 | 906 | 905 | 727 | 860 | 799 | 774 |
| Visit friends elsewhere | 87 | 209 | 188 | 113 | 176 | 199 | 158 | 106 | 154 | 164 | 145 |
| Entertainment/ public social activities | 262 | 416 | 292 | 229 | 306 | 424 | 270 | 182 | 282 | 293 | 285 |
| Sport participate | 148 | 267 | 218 | 91 | 200 | 74 | 53 | 30 | 52 | 121 | 127 |
| Holiday base | 206 | 199 | 170 | 153 | 173 | 139 | 191 | 150 | 169 | 171 | 180 |
| Day trip | 240 | 185 | 290 | 344 | 278 | 176 | 304 | 295 | 273 | 275 | 266 |
| Other including just walk | 21 | 39 | 56 | 46 | 50 | 74 | 53 | 26 | 51 | 51 | 43 |
| Undefined purpose | 68 | 309 | 207 | 183 | 224 | 242 | 143 | 95 | 153 | 186 | 157 |
| All modes | 4069 | 7404 | 8817 | 5131 | 7661 | 6469 | 6523 | 3414 | 5721 | 6619 | 5985 |

## Travel to work (table 4.4)

- In addition to filling in a diary of their actual travel, respondents are asked their 'usual' mode of travel to work. Around four fifths of workers travelled to work by car or van and around one tenth usually walked to work.

Table 4.4 Method of travel to work: 1999-2001

## Percentage of workers (excluding those who worked at home)

| Car/van (includes minibus \& works |  |
| :--- | :---: |
| van) | 80 |
| Motorbike/moped/scooter | 1 |
| Bicycle | 1 |
| Bus | 5 |
| NIR train | 1 |
| Walk | 11 |
| Other | 2 |

## Section 5: Other factors affecting travel

This section gives details of vehicle mileage, the availability of various modes of public transport and access to bus and train services.

## Annual vehicle mileage and reason for vehicle use (table 5.1)

- Thirty seven per cent of annual vehicle mileage was between 9,000 and 15,000 miles, with nearly three quarters of the vehicles surveyed having an annual mileage between 5,000 and 18,000 miles.
- Households containing one or more school-aged child were asked if their vehicles were used to take someone to school. In 1999-2001, two in five vehicles in these households were used to take someone in the household to school.
- Over one half ( $53 \%$ ) of all vehicles in the survey were used to take someone in the household to work. Of the vehicles that were used for work journeys, more than half of these (55\%) were parked in a "private or firm's car park" during work hours, with 41\% parked "in a non-payment area" and $4 \%$ in public car parks.
- Just over one quarter ( $27 \%$ ) of vehicles were used in the course of work by someone in the household.

Table 5.1: Annual vehicle mileage: 1999-2001

| Miles per year | Frequency | Percentage of Vehicles |
| :--- | :---: | :---: |
| $\mathbf{0 - 4 9 9}$ | 22 | 1 |
| $\mathbf{5 0 0 - 9 9 9}$ | 22 | 1 |
| $\mathbf{1 , 0 0 0 - 1 , 9 9 9}$ | 66 | 2 |
| $\mathbf{2 , 0 0 0 - 2 , 9 9 9}$ | 70 | 2 |
| $\mathbf{3 , 0 0 0 - 3 , 9 9 9}$ | 115 | 4 |
| $\mathbf{4 , 0 0 0 - 4 , 9 9 9}$ | 104 | 3 |
| $\mathbf{5 , 0 0 0 - 6 , 9 9 9}$ | 426 | 14 |
| $\mathbf{7 , 0 0 0 - 8 , 9 9 9}$ | 347 | 11 |
| $\mathbf{9 , 0 0 0} \mathbf{- 1 \mathbf { 1 } , 9 9 9}$ | 621 | 20 |
| $\mathbf{1 2 , 0 0 0} \mathbf{- 1 4 , 9 9 9}$ | 533 | 17 |
| $\mathbf{1 5 , 0 0 0 - 1 7 , 9 9 9}$ | 335 | 11 |
| $\mathbf{1 8 , 0 0 0 - 2 0 , 9 9 9}$ | 243 | 8 |
| $\mathbf{2 1 , 0 0 0 - 2 9 , 9 9 9}$ | 117 | 4 |
| $\mathbf{3 0 , 0 0 0}$ or over | 112 | 4 |
| Total | 3133 | 100 |

## Bicycle ownership (table 5.2)

- $38 \%$ of households in Northern Ireland owned one or more bicycles. A total of $14 \%$ had only one bicycle, $12 \%$ two bicycles and a further $12 \%$ had 3 or more bicycles.
- $62 \%$ of the households surveyed did not have a bicycle that could be used by an adult or child aged 6 or over.

Figure 5.1: Household bicycle access: 1999-2001


Table 5.2: Household bicycle access: 1999-2001

| Number of bicycles | Number of households | Percentage of <br> Households |
| :---: | :---: | :---: |
| 0 | 1779 | 62 |
| 1 | 396 | 14 |
| 2 | 332 | 12 |
| 3 | 167 | 6 |
| 4 | 115 | 4 |
| 5 | 43 | 2 |
| 6 | 13 | - |
| 7 | 2 | - |

## Access to public transport (tables 5.3 \& 5.4)

- Nearly 7 in 10 households ( $69 \%$ ) lived within 6 minutes walk of a bus stop or place where they could get on a bus.
- When a member of each household was asked how often could they get a bus from their nearest stop every day, $27 \%$ did not know how often. $7 \%$ of households could get a bus every 15 minutes during the day, while $22 \%$ could get a bus every half-hour and a further $22 \%$ every hour.
- Relatively few households had access to a train station. One member of each household was asked how long it would take them to walk to their nearest NIR station. Nearly two thirds $(63 \%)$ said it would take them 44 or more minutes or it was not feasible to walk. Overall only $25 \%$ of households lived within 26 minutes walk and only $11 \%$ lived within 13 minutes walk of an NIR station.
- Of those households who lived within 44 minutes walk, $76 \%$ stated that their nearest station had a frequent service of at least once an hour throughout the day. $12 \%$ stated that they did not know what the level of service is.
Figure 5.2: Time taken to walk to nearest bus stop: 1999-2001


Table 5.3: Bus service frequency: 1999-2001

| Frequency of Service | Percentage of <br> Households |
| :--- | :---: |
| At least once every quarter-hour | 7 |
| At least once every half-hour | 22 |
| At least once an hour | 22 |
| About $\mathbf{3}$ times a day | 16 |
| At least once a day | 5 |
| Less than once a day | 1 |
| Don't know | 27 |

Figure 5.3: Time taken to walk to nearest NIR station: 1999-2001


Table 5.4: Rail service frequency: 1999-2001

| Frequency of Service (For those households within 44 <br> minutes walk from nearest station) | Percentage of <br> households |
| :--- | :---: |
| Frequent service throughout day (at least once per hour) | 76 |
| Frequent service during rush hour (at least once per hour) | 5 |
| Less frequent service | 4 |
| Not applicable | 3 |
| Don't know | 12 |

## Appendix A: Definitions and Survey Notes

## Personal Travel

The Northern Ireland Travel Survey is concerned with all personal travel within Northern Ireland provided the main reason for the journey is for the person themselves to reach the destination.

## Geographical Coverage

Only travel within Northern Ireland (and inshore islands) is included. This means for a journey to Dublin for example, only the portion of the journey to the border is included.

## Journeys

A journey is defined as a one-way course of travel having a single main purpose. Outward and return portions of a return journey are treated as two separate journeys. A journey cannot have two separate purposes. A brief call is a relatively incidental stop for a subsidiary purpose e.g. stopping for petrol. If a brief call is made the journey is not broken up into smaller journeys.

## Stages

A journey consists of one or more stages. A new stage is defined when there is a change in the form of transport or when there is a change of vehicle requiring a separate ticket.

## Households

A household consists of one or more people who have the sampled address as their only or main residence and who either share at least one main meal a day or share the living accommodation.

## Mode and Main Mode

Mode is the form of transport used for a stage of a journey. The main mode is the form of transport used for the greatest length of the journey.

## Distance travelled

The length of any journey stage is the distance actually covered by the traveller and not the distance "as the crow flies".

## Series of calls journeys

Travel involving a number of stops for the same main purpose and using the same form of transport are treated as one continuous series of calls. Series of calls can only be used for shopping and in course of work journeys. A doctor's round for example would therefore consist of one journey to visit the first patient, one series of calls journey to all the other patients, and one journey from the last call back to the surgery or home.

## Journeys excluded

The survey is only concerned with travel involving a person moving from one place to another in order to reach that destination. Travel involving the movement of freight and for people paid to walk (e.g. policemen, postmen, etc.) is excluded.
In course of work travel for certain occupational groups is therefore excluded (e.g. bus drivers, conductors, taxi drivers, crew of public transport vehicles, crew of public vehicles such as fire engines, or ambulances; travel in industrial or agricultural equipment (cranes, bulldozers, tractors, etc.); travel in specially equipped vehicles used in the course of a person's work (police patrol cars, $\mathrm{AA} / \mathrm{RAC}$ repair vehicles, Post Office vans, etc.).

Leisure travel which is not competitive to public transport is also excluded (e.g. a boat trip for pleasure).

Generally travel off the public highway by mechanical transport is excluded.
Walking or cycling is included even if off the public highway unless it takes place on private land. An exception to this is cross-country walking, running, hiking or mountain climbing even if on private land.

Children's play is excluded.

## Journey purpose

The purpose of a journey is governed by what the person did at the end of the journey. However, for journeys 'home' the purpose is governed by the start of the journey. This means for example the purpose of a journey from the shops to home is 'shopping'. Detailed information on journey purposes can be obtained by consulting the definition manual.

## Types of journey purpose

Commuting journeys include journeys to a usual place of work from home, or from work to home.

Business journeys are journeys in course of work i.e. journeys made as part of a person's paid job to or from a place other then the usual place of work. Business journeys include a journey in course of work back to the work base. This category includes all work journeys by people with no usual place of work (e.g. site workers) and those who work at or from home.

Education journeys include journeys to or from school or college, etc. by full time students, students on day-release and part time students following vocational courses.

An escort code is used when the traveller has no purpose of his or her own, other than to escort or accompany another person e.g. a mother taking a child to school. Escort commuting for example is escorting or accompanying someone from home to work or from work to home. Escort education journeys are presented separately for the purposes of this report

Shopping includes all journeys to shops or from shops to home, even if there was no intention to buy.

Personal business journeys include visits to services, e.g. hairdressers, laundrettes, dry-cleaners, betting shops, solicitors, banks, estate agents, libraries, churches; or for medical consultations or treatment. This category also includes journeys for eating and drinking when the respondent is alone or at work.

The visit friends elsewhere code includes journeys where the main purpose was to eat or drink other than when the respondent is alone or at work. It also includes journeys to meet friends other than in private home but where the main purpose is still to socialise with particular persons rather than visit a particular place.
The entertainment/public social activities category includes journeys for all types of entertainment, public social activities and unpaid voluntary work. Examples include cinemas, political meetings, non-vocational evening classes.

The sport participate category includes journeys to take part in all outdoor activities. It also includes squash, badminton, swimming, boxing, wrestling, weight training, judo and karate.

Holiday base journeys include journeys within NI to or from any holiday base (includes stays of 4 or more nights with friends or relatives).

Day trip journeys include journeys for pleasure (not otherwise classified as social or entertainment) within a single day.

Just walk journeys are walking trips made just for pleasure.

## Modes of travel

Walks of 50 metres or more are collected on day 1 and walks of 1 mile or more on days 2-7.

The bicycle category includes travel on all forms of bicycle or tricycle not mechanically propelled. Purposive travel on children's bicycles is included under 'walk'.

In general, for the purpose of this report 'car' travel includes travel in all 3 or 4wheeled cars.

The motorcycle category covers all two wheeled motorised vehicles used for private transport.

For this report generally van and lorries are included in the other private category. (Vans with rear windows to the side of the drivers seat are coded as cars.) Also included are land rovers and jeeps, invalid carriages, motorised wheelchairs, caravans, dormobiles, minibuses, private aircraft, etc.

Citybus covers all those regular bus services, which provide short distance travel within urban or suburban areas e.g. the Belfast City Zone.

Unless specified, the Ulsterbus category includes regular Ulsterbus services and express services.
The other bus category includes private hire buses, 'coaches', excursion tour buses, and any other buses not classified above.

The NIR category includes all travel by train. Non-purposive train travel (e.g. at fun fairs) is irrelevant to the survey.

Black taxis include taxis, which operate like minibus e.g. to the University of Ulster Jordanstown. Private hire taxis are included in the taxi category.

Public transport not specified elsewhere e.g. by aircraft is included under other public transport.

## Area

Belfast

East of Northern Ireland

West of Northern Ireland

## District Council

Belfast

Antrim, Ards, Ballymena, Banbridge, Carrick, Castlereagh, Craigavon, Down, Larne, Lisburn, Newtownabbey, North Down

Armagh, Ballymoney, Coleraine, Cookstown, Dungannon, Fermanagh, Limavady, Derry, Magherafelt, Moyle, Newry \& Mourne, Omagh, Strabane

# APPENDIX B: Technical Information on Survey Methodology 

## Sequence of work on the TSNI

The sequence of tasks carried out in the travel survey is summarised below. The survey collects information using two methods: a Computer Aided Personal Interview and a seven-day travel diary.

Details of the individual procedures are set out in the remainder of this report.
Figure B 1 Sequence of the TSNI

## Refinement of questionnaire

## Sample Selection



Allocation of addresses
to interviewers


Data Collection
(The CAPI Interview \&
Travel diary)


Data input by CSU staff


Report Writing

## Sample Selection

The Travel Survey for Northern Ireland is required to provide a comprehensive picture of personal travel behaviour by people living in private households in Northern Ireland. The sample is therefore designed to provide a representative sample of households in Northern Ireland. Each member of each household is asked to provide information about journeys made in a pre-selected seven-day period, known as the Travel Week. As travel behaviour varies considerably depending on the month of the year or the day of the week, interviewing and travel record keeping is spread out evenly over the year.

A sample of approximately 435 addresses is drawn from the Valuation and Lands Agency (VLA) list of addresses every three months (approximately 145 for each month). The VLA list is the most up to date listing of private households. People living in institutions (though not private households in such institutions) are excluded.

The complete VLA list of private addresses is stratified into 3 regions - Belfast, East of Northern Ireland and West of Northern Ireland. The number of addresses drawn from each region is in proportion to the number of addresses in the region. The sample is therefore equivalent to a simple random sample of all private addresses in Northern Ireland.

The Valuation and Lands Agency provides a good sampling frame of addresses, but contains no information about the number of households living at an address. Further selection stages are therefore required to decide which household to interview.

Interviewers are instructed to call at each address issued in their assignments. If an interviewer comes across an address, which contains more than one household, then a decision must be made as to which household to select to take part in the interview. The interviewer then numbers each individual household and uses Table B. 1 to determine which one of the households to interview:

## Table B 1 Household Selection Table

| Number of households | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Household selected | 1 | 3 | 2 | 2 | 6 | 4 |

## Allocation of addresses to interviewers

Every month each interviewer is allocated around 8 households to survey. Each address has been given a random start date for the travel week to ensure that travel start days are spread evenly across days of the week and weeks of the year. This also avoids any bias that may occur if respondents are allowed to pick their own travel week.

## The Interview

The information for the survey is collected in the following stages:

- The placement call
- The reminder call (if necessary)
- The mid-week checking call (if necessary)
- The pick-up call

Figure B 2 Possible calls made by an interviewer to household


In advance of the interviewer's first call, the respondent receives an advance letter explaining the purpose of the study and that an interviewer will call.

The initial interview with the household is termed the placement call. At this call the interviewer explains the purpose of the survey, ideally to the entire household, and gains the cooperation of the entire household. The interviewer then asks the head of the household or other responsible person questions about the household composition and some general background information. Figure B. 3 shows the contents of the placement questionnaire.
The interviewer then asks the other individuals of the household a set of questions. A reduced set of questions is asked to children under 16. Questions are also asked about each household vehicle from the person best able to give that information (usually the main driver). After each individual interview the interviewer gives each respondent a travel diary and explains that the main aim of the diary is to collect information about travel habits over a seven-day period. Interviewers explain in detail how to record journeys made during their allocated travel week on the diary and talk the respondents through some examples, explaining what to include and what not to include. They also describe the survey definitions, for example, usual place of work, in course of work, etc. Pocket size diaries are occasionally handed out to help respondents record details of their journeys. The interviewer also leaves a leaflet explaining the purpose of the survey with each household. In addition, a TSNI pen is left for each household.

The interviewer may make a reminder call (usually by telephone) to the household to remind them that the travel week is due to begin.

Sometimes the interviewer would also make an additional mid-week checking call on a household part way through the travel week to help with problems and encourage accurate record keeping. This call is made at the interviewer's discretion for example if the respondents are elderly or the household is particularly large and the interviewer was unable to get all the household together to explain the purpose of the study.
The interview returns to the household within six days after the end of the travel week to make the pick-up call. The interviewer collects the travel diary of each household member and checks the contents with the respondent. The interviewer also asks some additional questions e.g. has the respondent obtained a driving licence or any special tickets since placement.

Figure B 3 Information collected

| SECTIONS | SUBJECT |
| :---: | :---: |
| Household Section <br> (In CAPI Interview) | Placement and Travel Week dates <br> Household information, e.g. name, age, sex, marital status, ethnic group, etc. <br> Availability of public transport <br> Bicycle access <br> Number of household vehicles |
| Individual Section <br> (In CAPI Interview) | Disability section <br> Satisfaction with local public transport <br> Driving license holding <br> Employment, Occupation and Industry, Income <br> Place of work and travel to work <br> Types of public transport tickets held <br> Cycling <br> Religion |
| Vehicle Section <br> (In CAPI Interview) | Make and model <br> Year of registration <br> Engine size <br> Mileage <br> Car usage for school, work and in course of work journeys <br> Parking <br> Parking charges |
| Travel diary <br> (Filled in by respondent) | Details of all journeys by transport e.g. <br> Purpose of journey <br> Time left and arrived <br> Method of travel <br> Distance travelled <br> Travelling time <br> Ticket type (if applicable) <br> Driver or passenger <br> Has respondent obtained driving licence since placement? <br> Has respondent obtained special ticket since placement? |

## Fieldwork Control

Interviewers working on the travel survey return discs to the office every week with details of interviews carried out that week. Diaries are also returned to the office by post after each pick up call.

Systems have now been put in place to enable interviewers to use a modem to connect their computer to their telephone line, in order to send their weekly data in to the server and also to receive their next allocation (this is operational as of March 2002).

A member of staff in Central Survey Unit paper codes the travel diaries and then, to ensure consistency, a different staff member checks the coding and transfers the information from the diary to the computerised Journey Input System.

The office supervisor makes further checks on $10 \%$ of all diary coding and inputting to the Journey Input System. Every month, the office supervisor sends out a short questionnaire to some of the households that have been visited, to check the respondent's level of satisfaction with the way the survey was carried out.

## The Journey Input System

The information of the travel diary is input into the Journey Input System using 'Blaise'. Hard and soft data checks are written into the journey input system. Quality checks are also made in order to monitor the progress of the interviewers work and ensure diaries are being filled in correctly.

The data is then merged with the information from the CAPI interview and converted into the ASCII format. The data is imported into SPSS data files. Further quality checks are then made on the data in SPSS.

## Response

Households may be classified into the following levels of response:
A fully complete response has a fully completed computer interview i.e. every individual answering and the vehicle grid filled in for all cars. There is also a completed diary for every individual.

A Partial - level 1 response has a fully completed computer interview i.e. every individual has answered and the vehicle grid is filled in for all cars. There is a completed diary for some but not all persons in the household.
A Partial - level 2 response is where an interview has not been completed for all people but there is a matching individual interview and diary for at least one person in the household.

A Partial - unproductive response is where some information has been gathered but there is no matching individual interview or diary for anyone in the household.
Only information collected from households classified as fully complete, partial level 1 and 2 has been included in the calculations.

An Outright Refusal is when there is no chance of achieving an interview during the field period.
A Circumstantial Refusal is if circumstances prevent the respondent from participating in the survey e.g. they are genuinely too busy.

An Office Refusal (or refusal to advance letter) applies when a refusal is received at HQ from a recipient of an advance letter.

A Refusal after promise to co-operate applies if, for example, an interviewer successfully makes an appointment, then calls back later and finds that the respondent has changed their mind.

A Non-Contact is if any of the following apply: respondent would not answer door, respondent rarely there/unconfirmed second residence, shift-worker/works odd hours, respondent away all survey period/on holiday, interviewer could not find address or ran out of field time.

A Non-eligible code is for premises which are wholly or partially residential, but in which no one is living. It is applicable for buildings under construction or under conversion if there is no household currently living there. It also applies to holiday accommodation and second residences. Derelict/demolished buildings are also included as are non-residential properties, Institutions and Halls of residences. This code should also be used if there is no trace of the address, or if the household is no longer resident at the address.

Tables B 2 - B 5 show the response rates received for data.
Table B 2 Response Rates: 1999

|  | Number | $\%$ Response Rate <br> (Eligible sample) |
| :--- | :---: | :---: |
| Issued addresses | 1,479 |  |
| Eligible sample | 1,359 | 67 |
| Completes* | 911 | 6 |
| Unproductive interviews | 81 | 20 |
| Refusals | 268 | 7 |
| Non contacts | 99 |  |

* Includes Fully Completes, Partial Level 1 and Partial Level 2 responses

Table B 3 Response Rates: 2000

## Number

1,726

| Issued addresses | 1,726 |  |
| :--- | :---: | :---: |
| Eligible sample | 1,554 | 64 |
| Completes* | 1,002 | 4 |
| Unproductive interviews | 69 | 20 |
| Refusals | 315 | 11 |
| Non contacts | 168 |  |

Table B 4 Response Rates: 2001

|  | Number | \% Response Rate <br> (Eligible sample) |
| :--- | :---: | :---: |
| Issued addresses | 1,717 |  |
| Eligible sample | 1,525 | 61 |
| Completes* | 934 | 4 |
| Unproductive interviews | 68 | 20 |
| Refusals | 307 | 14 |
| Non contacts | 216 |  |

Table B 5 Response Rates: 1999-2001

|  | Number | \% Response Rate <br> (Eligible sample) |
| :--- | :---: | :---: |
| Issued addresses | 4,922 |  |
| Eligible sample | 4,438 | 64 |
| Completes* | 2,847 | 5 |
| Unproductive interviews | 218 | 20 |
| Refusals | 890 | 11 |
| Non contacts | 483 |  |

## Data analysis

Data analysis is carried out using SPSS and Lotus Spreadsheets. Tables have been compiled so that the Northern Ireland Travel Survey data can be easily compared to the GB data.

Sample Profile (March 1999 - December 2001)
Table B 6 TSNI Sample profile by gender compared to census

|  | Number of <br> persons | Percentage | Census <br> percentage |
| :--- | :---: | :---: | :---: |
| Male | 3519 | 47 | 49 |
| Female | 3892 | 52 | 51 |
| Missing | 10 | 0 | 0 |
| Tofal | 7421 | 100 | 100 |

Table B 7 TSNI Sample profile by age

|  | Number of <br> persons | Percentage | Census <br> Percentage |
| :--- | :---: | :---: | :---: |
| $\mathbf{0 - 1 5}$ | 1833 | 25 | 24 |
| $\mathbf{1 6 - 2 4}$ | 815 | 11 | 13 |
| $\mathbf{2 5 - 4 4}$ | 2047 | 28 | 29 |
| $\mathbf{4 5 - 5 9}$ | 1368 | 18 | 17 |
| $\mathbf{6 0 - 7 4}$ | 893 | 12 | 12 |
| $\mathbf{7 5 +}$ | 455 | 6 | 6 |
| Missing | 10 | 0 | 0 |
| Total | 7421 | 100 | 100 |

Table B 8 TSNI Sample profile by area

|  | Number of <br> persons | Percentage | Census <br> Percentage |
| :--- | :---: | :---: | :---: |
| Belfast | 1107 | 15 | 17 |
| East | 3407 | 46 | 45 |
| West | 2907 | 39 | 38 |
| Total | 7421 | 100 | 100 |

Note: Some percentage totals may not total to $100 \%$ due to rounding error
Note: The census figures quoted above are based on mid year estimates for 1999 and 2000, and exact census figures for 2001.

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