Department for Regional Development
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AN ROINN Forbartha Réigiúnaí
MÄNNYSTRIE FUR Kintra Pairts Fordèrin

Public Perceptions on Car Emissions

February 2011

Northern Ireland Statistics & Research Agency

CONTENTS

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.

Multiple response questions - Respondents can give more than one response to these types of questions if they wish and therefore if individual percentages are summed they may add to more than 100%. These types of questions have been highlighted with the footnote "Percentages may add to more than 100% due to multiple responses".

The following symbols have been used throughout:
0 = less than 0.5 (including nil)

Only differences which are 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 results and the difference is not simply explained by random chance or sample error.

For further information, there is a User Information section on page 3 and Technical Notes on page 15.

User Information

In keeping with government policy, no hard copies of this report have been published, but are available on request. Requests or enquiries concerning this publication should be directed to.

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Background

The Department for Regional Development (DRD) has a commitment under the Sustainable Development Strategy to examine the issues facing Northern Ireland in tackling green house gas emissions from the transport sector. An area identified for study was behavioural attitudes to transport. Previously DRD commissioned questions in the Northern Ireland Omnibus Survey January 2009 to gauge public opinion on car/van emissions. These questions were repeated in the Northern Ireland Omnibus Survey February 2011, with the findings reported in this publication.

Uses of the data

Questions assessed the potential for behavioural change to reduce car/van emissions and the reason that influenced this change. The level of support for a range of transport policies/actions to reduce car/van emissions was also

asked. A copy of the questionnaire and the individual question result tables are present in Appendix A and B, respectively.

Background to the February 2011 Omnibus Survey methodology

The Northern Ireland Omnibus Survey is conducted several times each year by the Central Survey Unit of the Northern Ireland Statistics and Research Agency (NISRA) and is designed to provide a snapshot of the behaviour, lifestyle and views of a representative sample of people aged 16 and over in Northern Ireland. The survey comprises two distinct parts: core questions about the respondents and their individual circumstances, and a variety of questions commissioned by clients, which seek information on a range of issues.

Sample design

The sample for this survey consisted of a systematic random sample of addresses selected from the Land and Property Service list of private addresses. This is the most up-to-date listing of private households in Northern Ireland and is available to NISRA for research purposes. A total of 2,200 addresses were selected for interview. At each address, one person aged 16 or over was selected to participate in the survey. From an eligible sample of 1,919 households, 1,109 interviews were achieved, giving a response rate of 58%. Interviews were conducted between 14 February and 19 March 2011.

The interviewers list all members of the household living at the address who are aged 16 or over. From this listing of eligible adults the interviewer's computer randomly selects one adult who is then asked to complete the interview. As only one person is selected for interview, the data are weighted to adjust the results to those that would have been achieved if the sample had been drawn as a random sample of adults rather than addresses. Weighting

is based on household size with higher weights given to individuals in larger households as they have a lower chance of being selected for interview.

Weight = Number of adults aged 16 and over in household * (Total number interviewed)

(Total number of adults aged 16 and over in sample)

Sampling error

No sample is likely to precisely mirror the characteristics of the population it is drawn from due to sampling and non-sampling errors. An estimate of the amount of error from the sampling process can be calculated. The absence of design effects in the survey means that standard statistical tests of significance can be applied. For simple random sample design, the sampling error for any percentage p can be calculated by the formula:

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

A 95% confidence interval for the population percentage can be calculated using the following formula. This means that if 100 similar, independent samples were chosen from the population, 95 of them would yield a percentage within this range of values.

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

Data quality assessment

Very good – data are collected by the Central Survey Unit (CSU) and the sample is selected to be representative of the Northern Ireland population. Data undergo various validation checks 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 the Northern Ireland Statistics and Research Agency (NISRA), an Agency within the Department of Finance and Personnel.

The Unit has a long track record and a wealth of experience in the design, management and analysis of behavioural and attitude surveys in the context of a wide range of social policy issues. CSU procedures are consistent with the Official Statistics Code of Practice (http://www.statisticsauthority.gov.uk/assessment/code-of-practice/code-of-practice-for-official-statistics.pdf).

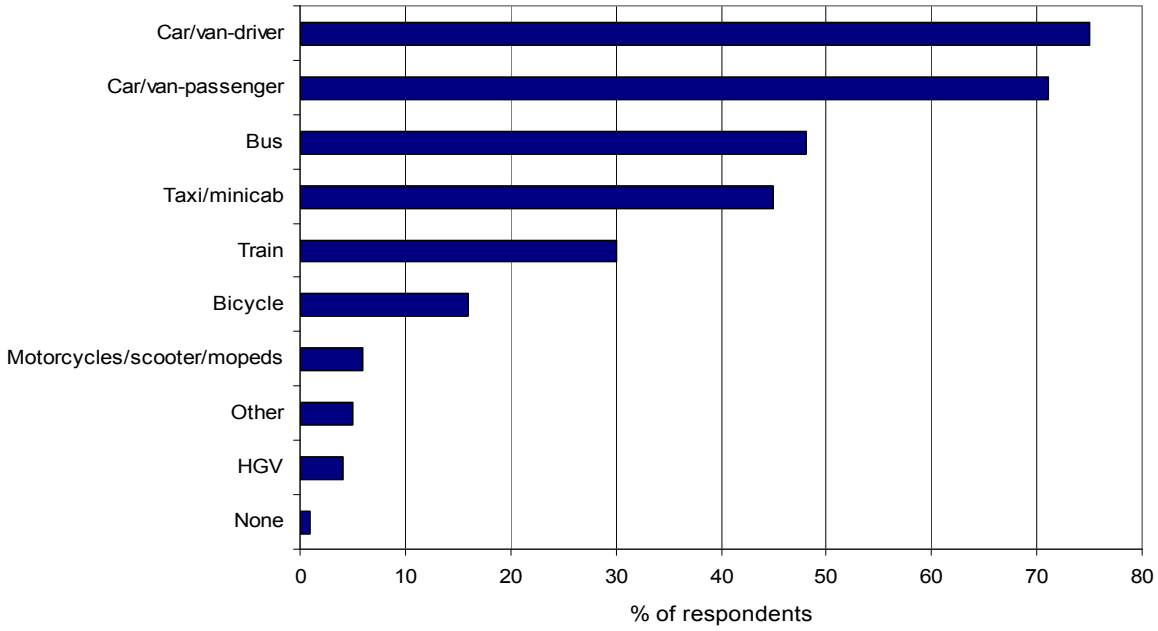
Note that all survey estimates are subject to a degree of error and this must be taken account of when considering results (see notes on sampling error above). This error will be reasonably small for the majority of Northern Ireland level results but care should be taken when looking at results based on smaller breakdowns.

Key points

1. Method of travel

1.1. To provide context, respondents were asked what methods of travel they had used in the last 12 months. Travelling by car or van was the most popular method, with the majority of respondents having travelled in a car or van as driver (75%), or as a passenger (71%). In total, 94% of the respondents had used a car or van as either a driver or passenger. Bus and taxi were the next most popular means of transportation, with just under half the respondents having used a bus (48%) or taxi (45%) in the last year. While significantly more respondents travelled in a car or van as a passenger (66%) than recorded in the 2009 survey, all other responses were comparable.

Figure 1. Methods of travel by respondents in the last 12 months: 2010-2011



Base=1,109
Percentages may add to more than 100% due to multiple responses

1.2. Male respondents (81%) were more likely than females (71%) to drive a car or van, with female (74%) more inclined than males (67%) respondents to be a passenger. These findings are comparable with the 2009 survey.

Male and female respondents were equally as likely to use the bus (48%), whereas in the 2009 survey, female respondents (53%) were more likely than male respondents (43%) to use the bus. Significantly more male (23%) than females (10%) respondents were likely to cycle.

1.3. Surveyed respondents living in Belfast were more inclined than respondents living in the East or West of Northern Ireland to use buses (65%) and taxis (64%). These responses show a similar trend as reported in 2009 survey.

In contrast, respondents living in rural areas were more likely to drive their car (88%) than those living in urban areas (68%). More urban than rural respondents answered they were likely to use a bus (54% and 39%, respectively). These findings are comparable with the 2009 survey.

2. Potential for behavioural change

2.1. Respondents were asked which of two statements regarding individual responsibility to limit car use for the sake of the environment best reflected their viewpoint. The greater proportion of respondents (53%) believed that individuals should try to limit their car use, with most of the remaining respondents (46%) believing there was no point, as not enough individuals would participate in order for it to make a difference. Respondents answered similarly in the 2009 survey.

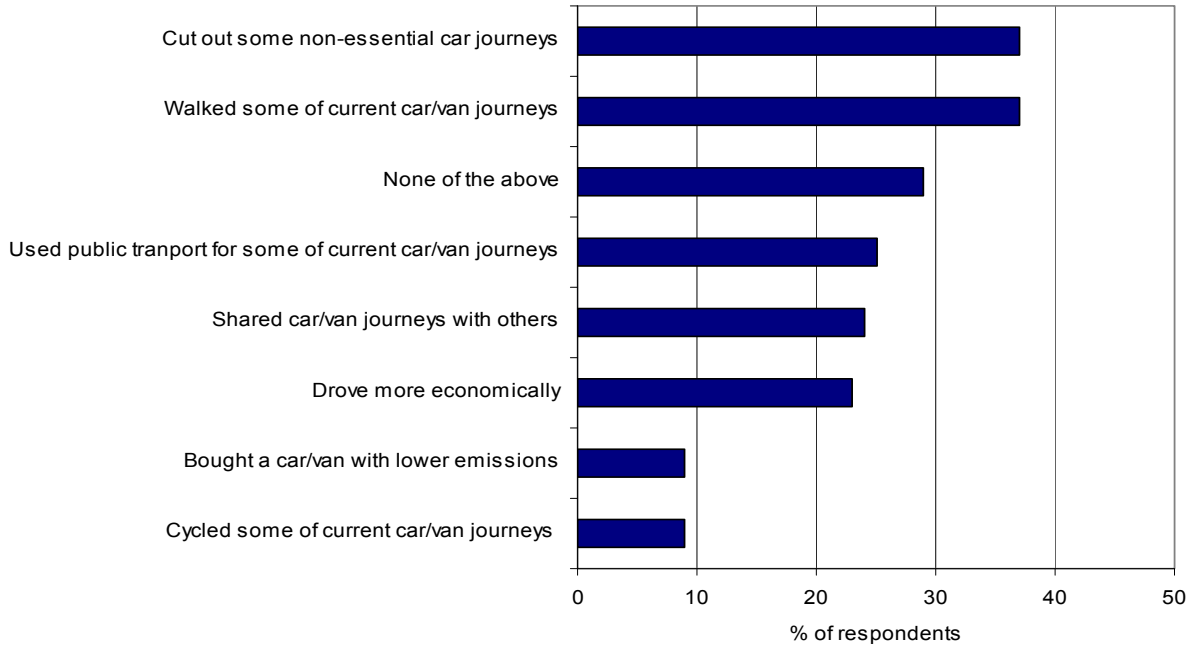
In the 2009 survey more Catholic (60%) than Protestant respondents (48%) were likely to state that individuals should try to limit their car use. In the current survey a similar proportion of Catholic and Protestant respondents (55% and 51%, respectively) answered that individuals should try to limit their car use.

Similar to the 2009 survey results, respondents with degree level, or higher qualifications, were also more likely to agree with this statement (69%) than respondents with no qualifications (47%).

2.2. Only respondents who had access to a car/van were asked the following questions in Sections 2.2-2.4 and 3.1-3.2 of this publication. Respondents were asked what measures they had taken to reduce their car emissions in the last 12 months. Cutting out some non-essential car journeys and walking some of the short car/van journeys currently made by respondents were the joint most popular response (37%). These were also the most popular responses in the 2009 survey.

Similar to the 2009 survey, a quarter of respondents favoured using public transport for some of the short car/van journeys currently made by respondents (25%). Nearly 3 out of 10 surveyed respondents (29%) had taken no measures to reduce their car emissions in the last 12 months. Again this is comparable with the sampled response in the 2009 survey.

Figure 2. Measures taken by respondents who had access to a car or van to reduce their car emissions in the last 12 months: 2010-2011



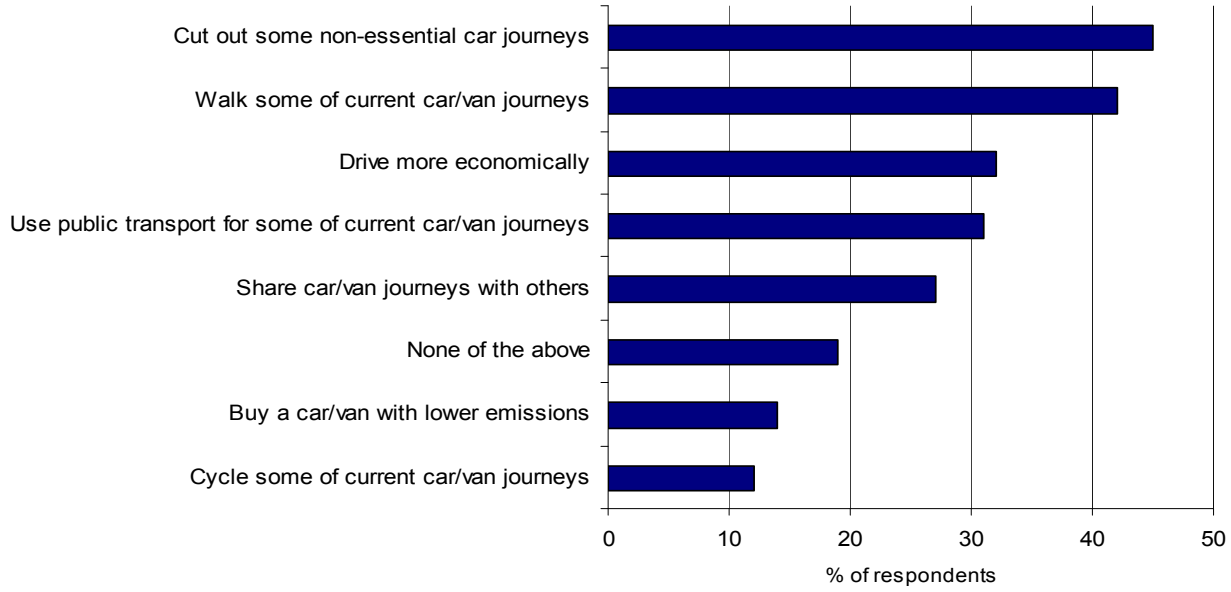
Base = 1,028
Percentages may add to more than 100% due to multiple responses

2.3. Nearly three in ten (29%) male respondents compared to 19% of females said they drove more economically in the last 12 months. Respondents with disabilities (41%) were more likely to have taken no measures to reduce their car emissions than respondents with no disabilities (27%). More urban than rural respondents were likely to have walked (44% and 26%, respectively) to reduce their car emissions. The above results are similar to those reported in the 2009 survey.

2.4. Respondents were asked what measures they would be prepared to take to reduce car emissions in the next 12 months. Cutting out non-essential car journeys was the most popular answer (45%), which was also the most popular response in the 2009 survey. Just over four in ten respondents (42%) said they would be prepared to walk some of the short car/van journeys they currently made. Nearly a third of respondents (32%) would be prepared to drive more economically.

Similar to the 2009 survey, more female (45%) than male (39%) respondents said they would be prepared to walk short journeys, with more surveyed males (18%) than females (10%) saying they would be prepared to buy a car with lower emissions. Males (18%) were more likely than females (8%) to be prepared to cycle some of the short car/van journeys they currently make.

Figure 3. Measures that respondents are prepared to take to reduce their car emissions in the next 12 months: 2010-2011

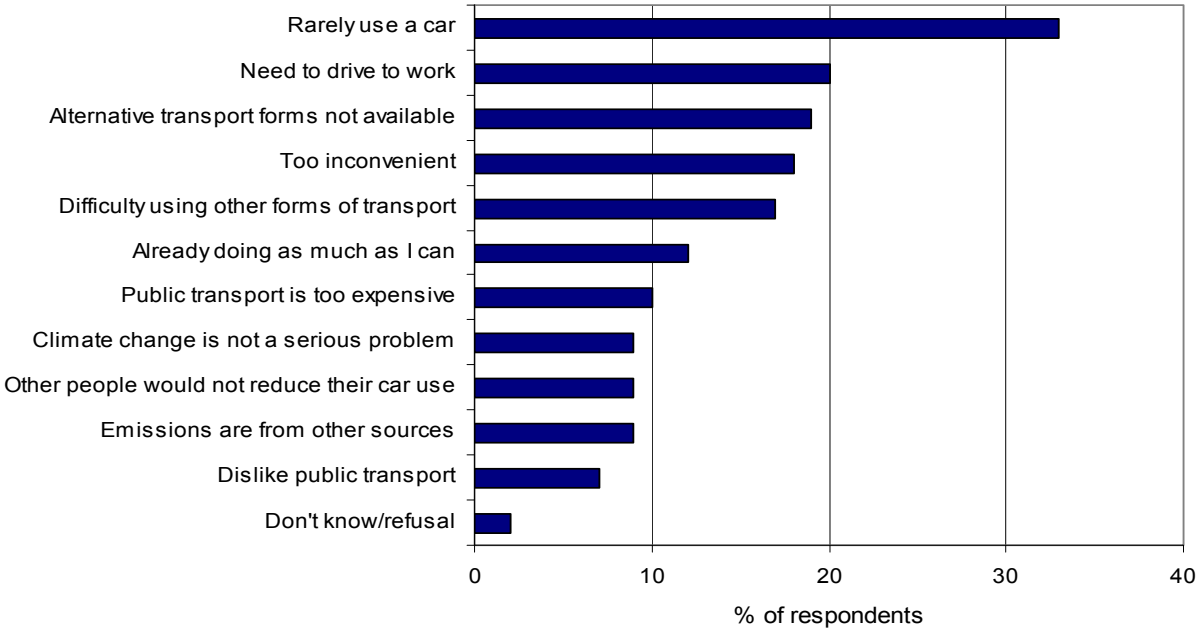


Base = 1,028
Percentages may add to more than 100% due to multiple responses

3. Reasons for increasing/decreasing car/van emissions

3.1. Respondents who had stated that they were not prepared to take measures to reduce their car emissions were asked why. A third of respondents (33%) said they rarely use a car, with one in five responding that they need to drive to work (20%). The lack of alternative transport forms or that it would be too inconvenient were cited by 19% and 18% of the respondents, respectively.

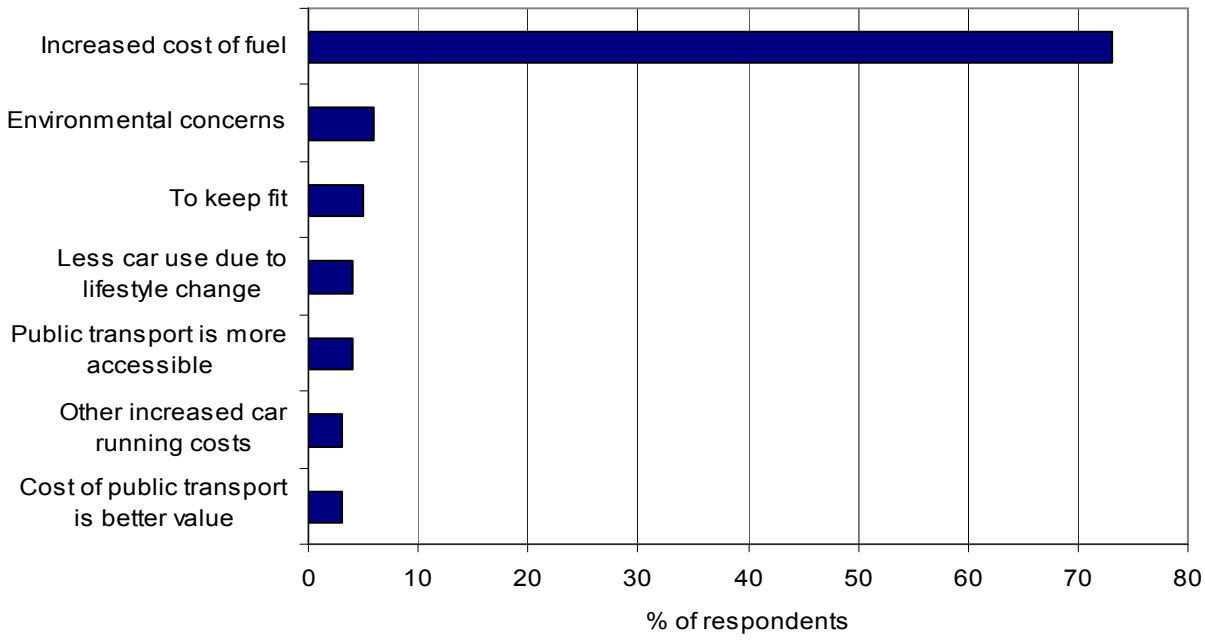
Figure 4. Main reasons why individuals who had access to a car or van are unlikely to reduce their car emissions: 2010-2011



Base = 214
Percentages may not add to 100% due to multiple responses

3.2. Respondents who had stated that they were prepared to take measures to reduce their car emissions were asked to rank their main reasons for doing so. Nearly three quarters of respondents asked (73%) said their main reason was the increased cost of fuel. Significantly more respondents cited this as their main reason in the current survey (73%), than in the 2009 (52%) survey. Environmental concern was the main reason for just over one in twenty (6%), with one in twenty respondents wanting to improve fitness as their reason (5%).

Figure 5. Main reason why individuals who had access to a car or van are likely to reduce their car emissions: 2010-2011

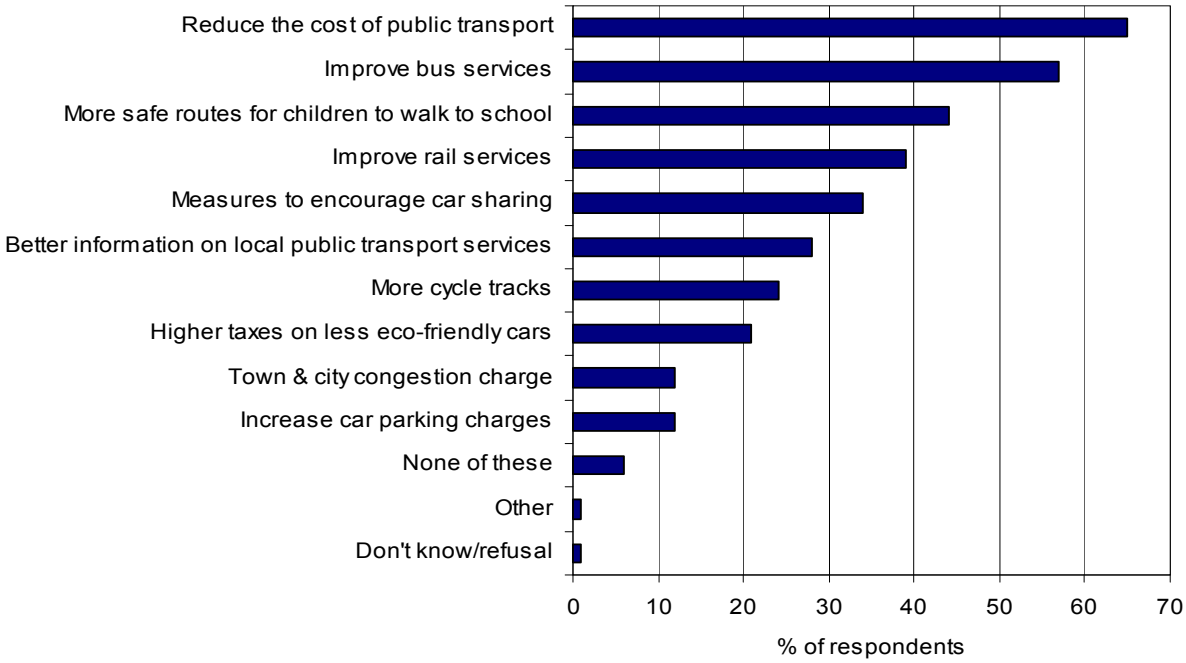


Base = 812
Percentages may add to more than 100% due to multiple responses

4. Policies to reduce transport emissions

4.1. All respondents were asked what local actions or policies taken by the government would encourage people to reduce their car emissions. The dominant responses included reducing the cost of public transport (65%) and spending more on improving bus services (57%). Significantly more female (70%) than male (59%) respondents and more urban (69%) than rural (57%) respondents cited reducing the cost of public transport as a way of encouraging people to reduce car emissions. These were also the top responses in the 2009 survey. Just over four in ten respondents (44%) were in favour of more safe routes for children to walk to school, with this action more favoured by female (49%) than male (40%) respondents.

Figure 6. Government actions and policies which would encourage people to reduce their car emissions: 2010-2011



Base = 1,109

Percentages may add to more than 100% due to multiple responses

Technical Notes

1. Significance tests – comparison by various characteristics

Significance tests (see definition below) were carried out to compare the following groups to see if there was a difference in answers given:

- Gender of respondent
- Age group of respondent (16-34, 35-59, 60+)
- Religion of respondent
- Area in NI where respondent lives- This is a recode of District Council into Belfast, East of the province and West of the province.
- Area where respondent lives (urban areas and rural areas) – see point 2 for definition
- Whether the respondent has a disability or not – see point 3 for definition

For example, the proportion of males giving a particular answer was compared to the proportion of females giving that answer. A result falling outside of a given range (which varies according to the significance level of the test) would be considered significant and show there is very likely to be a difference between male attitudes and female attitudes.

Significance tests were carried out at 5% significance level (range = -1.96 to +1.96). This means that there is at least a 95% probability that there is a genuine difference between responses given by, for example, males and females and the difference between the two genders is not simply explained by random chance or sample error. Sample error is produced when the figures are derived from a sample of the population rather than from the entire population. The NISRA Omnibus survey provides a representative sample of the population of Northern Ireland. People living in institutions (though not in private households in such institutions) are excluded from the survey.

Where there is only one main reason/most popular measure given, the other results are all significantly different from the highest proportion.

Where there is more than one main reason/most popular answer, one or more of the other results are not significantly different from the highest proportion. Any results that are not significantly different are grouped together.

2. Urban and rural areas

Area is based on where the respondent lives. These have been classified using the statistical classification of settlements defined by the Inter-Departmental Urban-Rural Definition Group.

- Urban areas: Bands A to E
  This includes Belfast Metropolitan Urban Area (BMUA): Band A, Derry Urban Area (Band B) and large, medium and small towns (Bands C-E with populations ranging from 4,500 or more to under 75,000).
- Rural areas: Bands F to H
  This includes intermediate settlements (Band F), villages (Band G) and small villages, hamlets and open countryside (Band H) with populations ranging from less than 1,000 to under 4,500 and including open countryside.

3. Disability status

Disability status is defined as whether the respondent has a disability or not.

The definition of disability is those answering yes to both of the following questions:

'Do you have a long-standing illness, disability or infirmity? By long-standing I mean anything that has troubled you over a period of time or that is likely to affect you over a period of time.' Yes/No

'Does this illness or disability limit your activities in any way?' Yes/No

4. Definition of "similar"/"no real difference"

Where the term "similar" or "no real difference" has been used when comparing results, it means that there is no significant difference (see definition in point 1 above) between the results being compared.

Car / Van Emissions Questionnaire

Ask all
Q1
Which methods of travel have you used in the last 12 months? Only include travel in Northern Ireland.

CODE ALL THAT APPLY
SHOWCARD A

1. Car/van – as driver
2. Car/van – as a passenger
3. Motorcycle/moped/scooter
4. Taxi/minicab
5. Bicycle
6. Bus (including coach/private bus)
7. Train
8. HGV
9. Other vehicles
10. Not been out in the last 12 months (Spontaneous only)

Ask all
Q2
Which of the following statements comes closest to your own views? Is it…

1. Individuals should try to limit their car use for the sake of the environment.
2. or, there is no point in individuals trying to limit their car use because not enough people will do it to make a difference?

If Q1 = 'Car/van – as driver' or Q1 = 'Car/van – as a passenger'
Q3
You have said that you use a [car or van as a driver/passenger] (insert from Q1), **what measures have you taken to reduce your car emissions in the last 12 months?**

CODE ALL THAT APPLY
SHOWCARD B

1. Cut out some non-essential car journeys
2. Shared car/van journeys with others to reduce total journeys made
3. Walked some of the short car/van journeys you currently make
4. Cycled some of the short car/van journeys you currently make
5. Used public transport for some of the short car/van journeys you currently make
6. Bought a car/van with lower emissions
7. Drove more economically – smarter driving or eco-driving
8. None of the above

If Q1 = 'Car/van – as driver' or Q1 = 'Car/van – as a passenger'

Q4

What [**other** (insert other if Q3=1-7)] **measures would you be prepared to take to reduce your car emissions in the next 12 months?**

CODE ALL THAT APPLY
SHOWCARD C

1. Cut out some non-essential car journeys
2. Share car/van journeys with others to reduce total journeys made
3. Walk some of the short car/van journeys you currently make
4. Cycle some of the short car/van journeys you currently make
5. Use public transport for some of the short car/van journeys you currently make
6. Buy a car/van with lower emissions
7. Drive more economically – smarter driving or eco-driving
8. None of the above

If Q4 = None of the above

Q5

Can I just check why you are unlikely to reduce your car emissions in the next 12 months?

CODE ALL THAT APPLY
SHOWCARD D

1. I rarely use a car
2. Too inconvenient
3. Need to drive for work
4. Alternative forms of transport not available
5. I would have difficulty using other forms of transport
6. I wouldn't like using public transport
7. Public transport is too expensive
8. No point as other people would not reduce their car use
9. No point as emissions are from other sources
10. I don't think climate change is a serious problem
11. Already doing as much as I can (spontaneous only)

If Q4 ~= None of the above

Q6

Rank in order (1 being the most significant concern) the main reasons you are likely to reduce your car emissions in the next 12 months?

1. Cost of fuel has increased
2. Other running costs of car have increased
3. Cost of public transport is better value
4. Public transport is more accessible
5. Now eligible for concessionary fares
6. Don't need to use the car as much because of a change in lifestyle
7. To keep fit
8. Concerns about the environment

Ask all

Q7

What local actions or policies taken by government here would encourage people to reduce their car emissions?

CODE ALL THAT APPLY
SHOWCARD E

1. Spending more on improving bus services
2. Spending more on improving rail services
3. Reducing the cost of public transport
4. Charging motorists to enter more towns and cities (like the congestion charge in London)
5. Increasing car parking charges
6. Measures to encourage car sharing
7. More cycle tracks
8. More safe routes for children to walk to school
9. Better information on local public transport services
10. Higher taxes on less environmentally friendly cars
11. Other – (specify)

12. None of these (spontaneous only)
13. Don't know (spontaneous only)

Appendix B

Table B1. Which methods of travel have you used in the last 12 months?

Travel Methods	% of respondents
Car/van - as driver	75
Car/van - as a passenger	71
Motorcycle/moped/scooter	6
Taxi/minicab	45
Bicycle	16
Bus (including coach/private bus)	48
Train	30
HGV	4
Other vehicles	5
Not been out in the last 12 months (Spontaneous only)	1
Base number *(All persons aged 16 and over)*	1,109

Percentages may add to more than 100% due to multiple responses

Table B2. Which of the following statements comes closest to your views?

Viewpoint	% of respondents
Individuals should try to limit their car use for the sake of the environement	53
There is no point in individuals trying to limit their car use because not enough people will do it to make a difference	46
Don't know/refusal	1
Base number (*All persons aged 16 and over*)	1,109

Table B3. What measures have you taken to reduce your car emissions in the last 12 months?

Measures	
Cut out some non-essential car journeys	37
Shared car/van journeys with others to reduce total journeys made	24
Walked some of the short car/van journeys you currently make	37
Cycled some of the short car/van journeys you currently make	9
Used public transport for some of the short car/van journeys you currently make	25
Bought a car/van with lower emissions	9
Drove more economically - smarter driving or eco-driving	23
None of the above	29
Don't know/refusal	0
Base number (*All persons who have access to a car or a van*)	1,028

Percentages may add to more than 100% due to multiple responses

Table B4. What other measures would you be prepared to take to reduce car emissions in in the next 12 months?

Measures	% of respondents
Cut out some non-essential car journeys	45
Share car/van journeys with others to reduce total journeys made	27
Walk some of the short car/van journeys you currently make	42
Cycle some of the short car/van journeys you currently make	12
Use public transport for some of the short car/van journeys you currently make	31
Buy a car/van with lower emissions	14
Drive more economically - smarter driving or eco-driving	32
None of the above	19
Base number (*All persons who have access to a car or a van*)	1,028

Percentages may add to more than 100% due to multiple responses

Table B5. Can I just check why you are unlikely to reduce your car emissions in the next 12 months?

Reasons	% of respondents
I rarely use a car	33
Too inconvenient	18
Need to drive for work	20
Alternative forms of transport not available	19
I would have difficulty using other forms of transport	17
I wouldn't like using public transport	7
Public transport is too expensive	10
No point as other people would not reduce their car use	9
No point as emissions are from other sources	9
I don't think climate change is a serious problem	9
Already doing as much as I can (spontaneous only)	12
Don't know/refusal	2
Base number (*All persons who answered 'none of the above' to question B4*)	214

Percentages may add to more than 100% due to multiple responses

Table B6. Please rank in order from the showcard the main reason you are likely to reduce your car emissions in the next 12 months.

Reasons	% of respondents
Cost of fuel has increased	73
Other running costs of car have increased	3
Cost of public transport is better value	3
Public transport is more accessible	4
Now eligible for concessionary fares	2
Don't need to use the car as much because of a change in lifestyle	4
To keep fit	5
Concerns about the environment	6
Don't know/refusal	1
Base number *(All persons who are prepared to reduce car emissions)*	812

Table B7. What local actions or policies taken by government here do you think would encourage people to reduce their car emissions?

Action or policy	% of respondents
Spending more on improving bus services	57
Spending more on improving rail services	39
Reducing the cost of public transport	65
Charging motorists to enter more towns and cities	12
Increasing car parking charges	12
Measures to encourage car sharing	34
More cycle tracks	24
More safe routes for children to walk to school	44
Better information on local public transport services	28
Higher taxes on less environmentally friendly cars	21
Other	1
None of these (spontaneous only)	6
Don't know/refusal	1
Base number (*All persons aged 16 and over*)	1,109

Percentages may add to more than 100% due to multiple responses