

Public attitudes towards climate change and the impact of transport: 2006, 2007, 2008 and 2009 (January 2010 report)

1. Introduction

- 1.1 This report summarises people's attitudes towards climate change in relation to transport, and to what extent attitudes have changed over time.
- 1.2 The report is based on a survey module included in the Office for National Statistics' Opinions (Omnibus) survey in August 2006, April 2007, August 2007, February 2008, August 2008 and August 2009. It covers the following issues:
 - levels of concern about the environment and climate change;
 - knowledge about the causes of climate change, including the contribution of transport;
 - knowledge about the consequences of climate change and views on the potential for behavioural change to reduce the impacts;
 - levels of support for a range of policy options to reduce transport emissions and the extent to which concern about climate change has the potential to influence travel behaviour.
- 1.3 Detailed tables are available in Annex A and Annex B.
- 1.4 The survey module will be included in the Opinions Survey again in August 2010. A report of the findings will be published in early 2011.

Survey design details

The **National Statistics Opinions (Omnibus) Survey** is a random probability survey of adults aged 16 and over living in private households in Great Britain. The August 2006 Opinions Survey interviewed 1,238 adults face-to-face in their own homes (response rate = 67%). The April 2007 survey covered 1,083 adults (response rate = 62%), the August 2007 survey covered 1,170 adults (response rate = 64%), the February 2008 survey covered 1,095 adults (response rate = 60%), the August 2008 survey covered 1,102 adults (response rate = 60%) and the August 2009 survey covered 1007 adults (response rate = 54%). The socio-demographic and travel patterns of respondents are similar in each survey (see Table AA.1). The questions asked can be found at Annex C. Significant differences over time or between groups which are referred to in the text are statistically significant at the 5% level (i.e. it is 95 per cent certain that the difference exists in the population).

This report was prepared by Nathaniel Eleini (Transport Statistics).

Key Findings

Levels of concern and knowledge about climate change

- Overall, the findings from the 2009 Opinions climate change survey suggest little change from last year, indicating that people's attitudes towards climate change in relation to transport have essentially remained unchanged.
- In 2009, 76% of adults said that they were very or fairly concerned about climate change, with about a quarter being very concerned.
- The proportion of adults considering climate change one of the top three most important issues facing Britain was about a quarter (24%) in 2009.
- In each year about 10% of adults said that they knew a lot about climate change; in 2009 a further 43% said they knew a fair amount. Just over one in ten said that they knew hardly anything or nothing.
- The vast majority of adults believed that the world and UK climate was being affected. Just over one in ten adults indicated that they were not convinced or were unsure whether the UK climate was being affected.
- Although the majority (about 60%) of adults felt that climate change would have little or no effect on them personally, in 2009 85% thought the affect on future generations would be a great deal or quite a lot.
- The majority of respondents believed that transport emissions contribute to climate change, with 65% spontaneously selecting emissions from road transport as a cause of climate change, although this proportion has fallen significantly since 2006.
- When asked which modes of transport contribute most the public were most likely to choose cars or aeroplanes.
- The public were most likely to trust independent scientists to provide correct information about climate change, although this has fallen significantly since 2006. Correspondingly, the proportion not trusting any source has increased significantly over time, from 6% in 2006 to 12% in 2009.

Potential for behaviour change

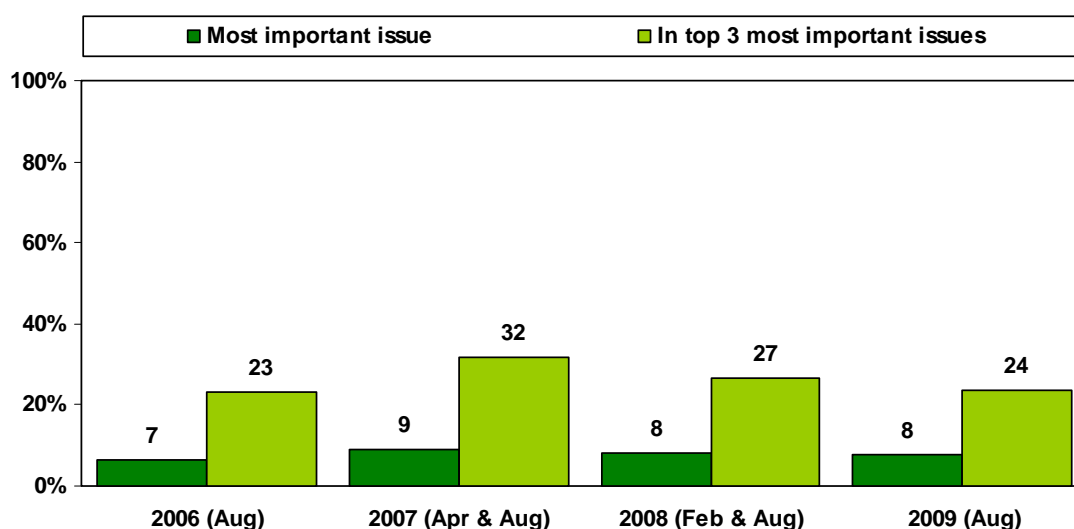
- Two thirds of adults (66%) felt that they themselves could have some or a little influence on limiting climate change, with around three-quarters (74%) saying that they would be prepared to change their behaviour in some way to help limit climate change.
- In 2009, around a quarter (24%) thought there was no point in changing their behaviour because the consequences of climate change are too uncertain, while a similar proportion (22%) believed the consequences to be too far in the future to worry about.
- Just under 60% of adults believed that *'Individuals should try to limit their car use for the sake of the environment'*.
- Support for policies on 'soft' measures to encourage alternative modes, such as improved public transport, was far higher than measures that would increase the cost of car travel. Support for both increasing tax on petrol and higher taxes on less environmentally friendly cars (the most popular pricing measure chosen by 37% of adults) decreased between 2006 and 2009.
- The vast majority of adults supported the Government persuading people to purchase less environmentally damaging vehicles, although the proportion supporting has reduced over time from 87% in 2006 to 81% in 2009.
- In 2009, 45% of adults believed *'Air travel should be limited for the sake of the environment'*.
- Around a fifth (21%) of adults supported increasing the cost of air travel to help reduce transport emissions.

2. General concerns about the environment and climate change

2.1 Survey respondents were first asked which issue (from a list) they felt was the most important facing Britain today. They were then asked to select the second and third most important issue. Views on the importance of climate change are, of course, highly dependent on how the question is framed and the other issues that are listed alongside climate change (Figure 1, Tables A.1 and A.2).

- In each survey crime, immigration and health were the issues that the public were most likely to consider to be the most important facing the country. Around 8% of adults said that climate change was the most important issue facing Britain (a similar proportion selected education and poverty).
- The proportion of adults considering climate change to be one of the top three most important issues was about a quarter (24%) in 2009.

Figure 1 Percentage considering climate change to be most important/in top three most important issues facing Britain



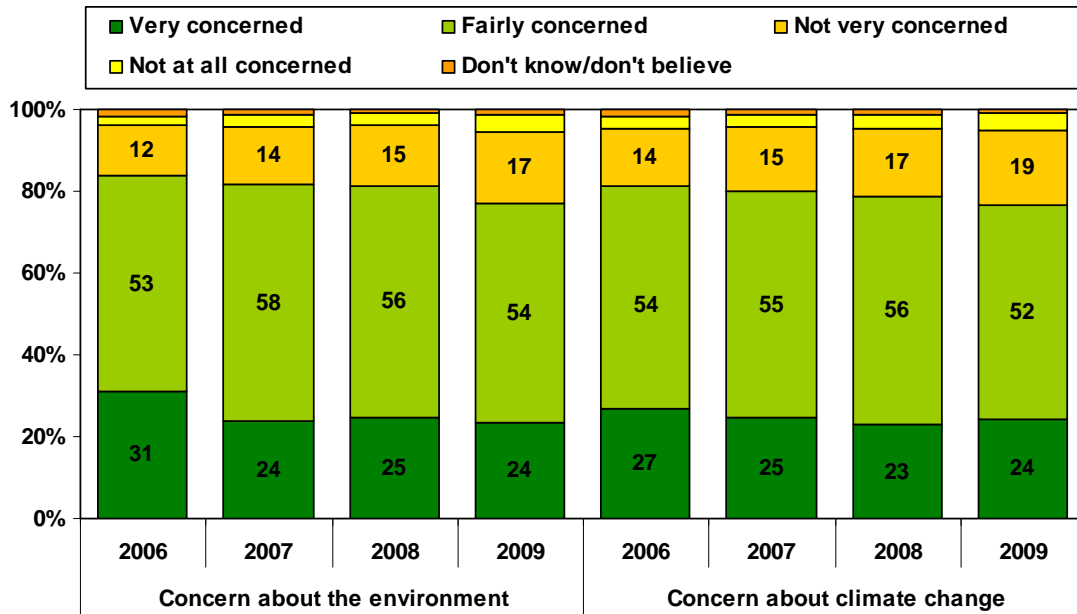
Source: Opinions Surveys - 2006, 2007, 2008 and 2009.
Base number: 1238; 2245; 2191; 1006.

2.2 Respondents were also asked how concerned they were about environmental issues in general and climate change specifically. Levels of concern about climate change and the general environment have both fallen slightly over time (Tables A.3 and A.4).

- In 2009, 76% of adults said that they were very or fairly concerned about climate change, with a quarter being very concerned. Less than 5% of respondents either said that they were not at all concerned or did not believe climate change was happening.

- A similar proportion said that they were very or fairly concerned about environmental issues; this has remained fairly stable over the last 3 years.

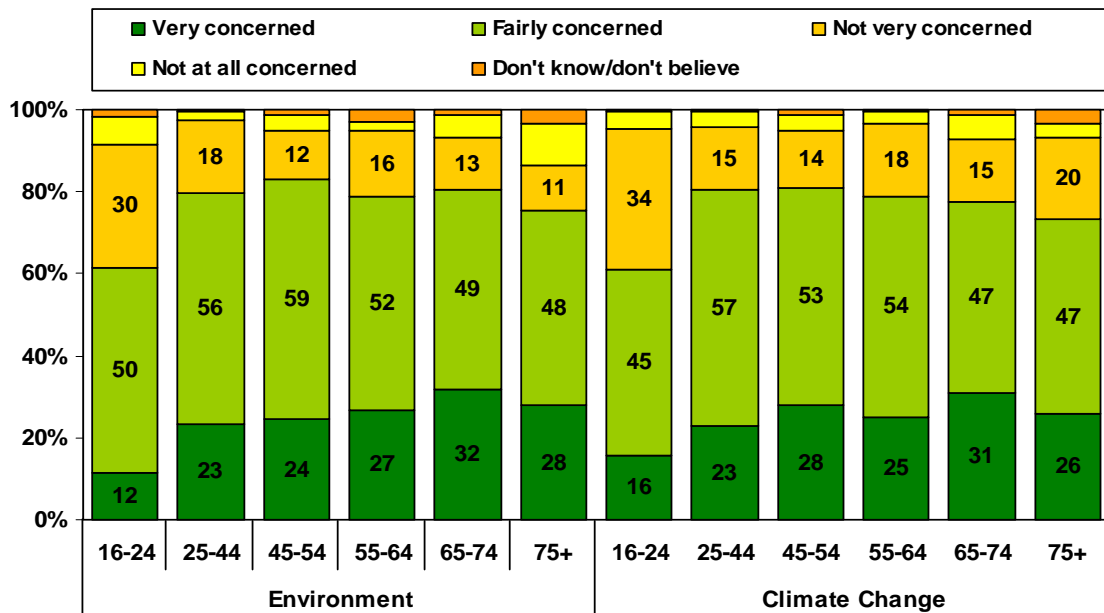
Figure 2 How concerned are you about environmental issues in general/climate change



Source: Opinions Surveys - 2006, 2007, 2008, 2009.
Base number: 1237; 2245; 2192; 1006.

2.3 In each survey young people aged 16 to 24 have expressed lower levels of concern than older people. Figure 3 shows levels of concern by age group. This is based on the 2009 survey only.

Figure 3 Levels of concern about environmental issues in general and climate change, by age group



Source: Opinions Surveys - 2009.
Base number: 16-24= 71; 25-44=321; 45-54=175; 55-64=174; 65-74=155; 75+=110.

2.4 There were also some differences in levels of concern across various socio-demographic groups. Table 1 lists some of the groups who were most and least concerned about environmental issues and climate change. Further details are in Tables B.1 and B.2.

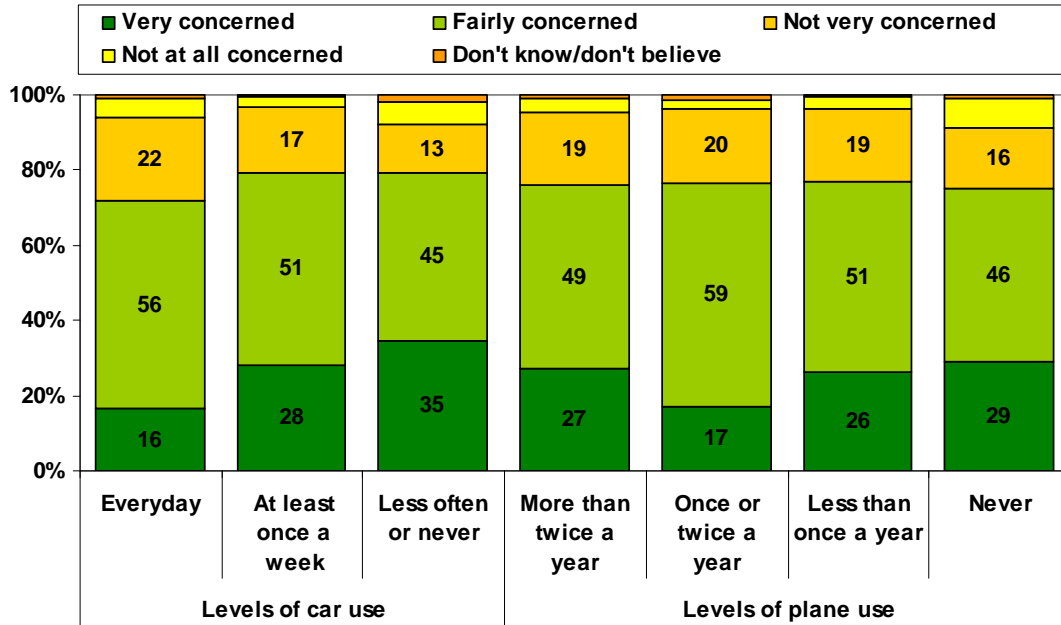
Table 1 **Groups with relatively high and low levels of concern about environmental issues and climate change**

	% very/fairly concerned about...	
	Environmental issues	Climate change
Groups with high percentages of concern		
Aged 45-54	83%	81%
Degree level or equivalent education	86%	83%
Those who travel by plane more than twice a year	83%	76%
Annual gross income of £26,000 or more	85%	83%
Groups with low percentages of concern		
Living in South East	71%	71%
National average		
All adults	77%	76%

Source: Opinions Surveys - 2009.
Base number: 1006 (Environmental issues); 1005 (Climate Change).

2.5 People who used a car every day (whether as driver or passenger) were less likely to say they were very concerned about climate change (16%) than those who used a car less often or never (35%). There was no consistent pattern according to frequency of flying (Figure 4).

Figure 4 Levels of concern about climate change, by levels of car and plane use



Source: Opinions Surveys - 2009.

Base number: Car use - everyday=404; at least once a week=454; less often/never=98.

Plane use - more than twice a year=98; once or twice a year=303; less than once a year=335; never=266.

3. Perceptions of the causes and consequences of climate change

- 3.1 The Opinions survey included questions to assess levels of public awareness about the causes of climate change, including the role of transport, and to identify to what extent people believe climate change will impact upon themselves and others.

Perceived levels of knowledge

- 3.2 In 2009 around 10% of respondents said that they knew a lot about climate change, with a further 43% believing that they knew a fair amount. Just over a third said they knew a little, while 11% said that they knew hardly anything or nothing. Levels of knowledge have remained relatively stable over time. (Table A.5).
- 3.3 There was some variation in levels of knowledge across groups. For example, around a fifth of people in the following groups said they knew nothing or hardly anything: people aged 75 or over; those on low levels of income (£6,240 - £10,399); and those with no cars in their household (Table B.3).
- 3.4 People who didn't drive or who never flew had relatively low levels of knowledge on climate change.

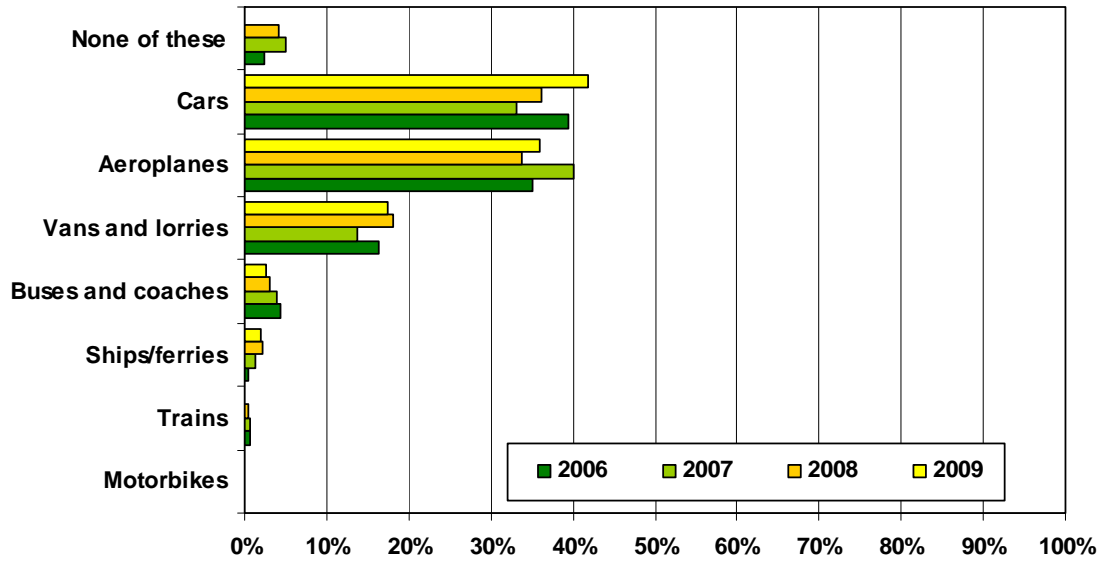
Perceived causes of climate change

- 3.5 Respondents (with the exception of those who knew nothing about climate change) were then asked what factors they thought contributed to climate change.¹ Full results are given in Table A.6.
- The most commonly cited cause of climate change, by far, was road transport emissions, mentioned by 65% in 2009. This was followed by emissions from planes, mentioned by around 40%. Emissions from power stations, 'other CO₂ emissions', and the burning of fossil fuels for energy were each selected by around 30% of respondents.
 - The proportion saying road transport emissions as a contributor has fallen from 72% in 2006 to 65% in 2009, a significant difference. Those mentioning natural causes fluctuated over the time period – 10% in 2006, 16% in 2007, 14% in 2008 and 11% in 2009.
- 3.6 Respondents were also asked which forms of transport (from a list) they considered to be major contributors to climate change and the one mode of transport that they felt contributed most (Figure 5, Tables A.21 and A.22).
- Vans/lorries, cars, and aeroplanes were each mentioned by about three-quarters of adults as being major contributors. However, the number saying cars, buses/coaches and vans/lorries has fallen significantly over the time period.

¹ These questions were asked unprompted. Respondents were not given a card listing possible options.

- The public were most likely to choose cars or aeroplanes as contributing most to climate change. In 2006, 39% selected cars, this fell to 33% in 2007, rose to 36% in 2008 and again to 42% in 2009. There have been fluctuations in the proportion selecting aeroplanes over time too, with the highest proportion choosing aeroplanes in 2007 (40%).
- In 2009, 62% of adults selected some form of road transport as contributing most to climate change.

Figure 5 Mode of transport considered to contribute most to climate change

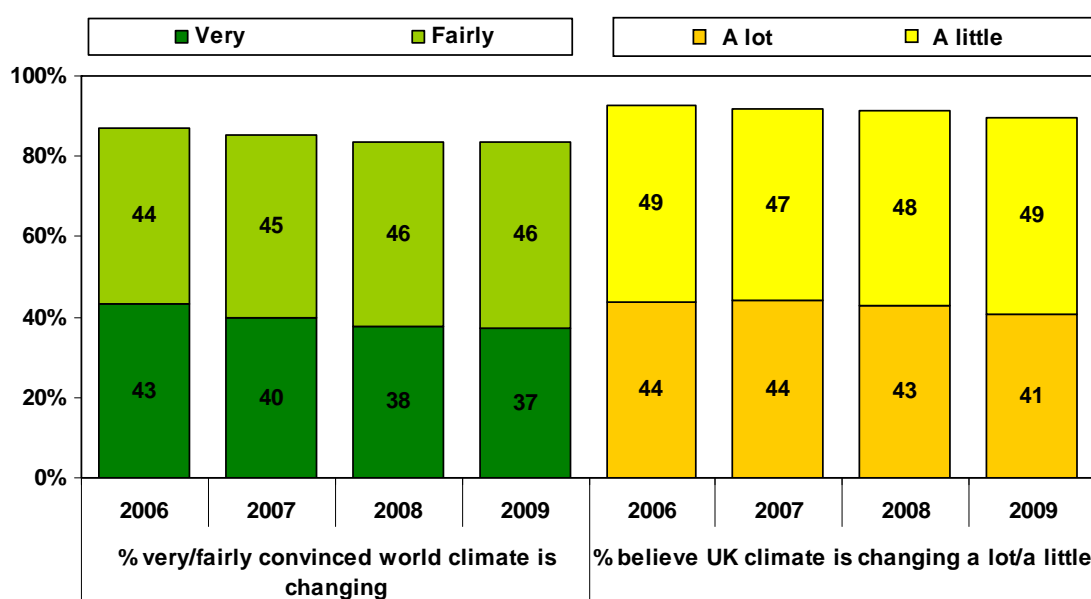


Source: Opinions Surveys - 2006, 2007, 2008, 2009.
Base number: 1216; 2236; 2176, 810.

Perceived consequences of climate change

3.7 In each survey the vast majority of respondents were either very convinced or fairly convinced that the world's climate was changing, with a similar proportion believing that the UK climate was being affected a lot or a little. In 2009, 17% of respondents were not convinced or unsure that the world's climate was being affected, with this figure standing at 11% for the UK. (Figure 6, Table A.8 and A.9).

Figure 6 Views about changes to the world and UK climate



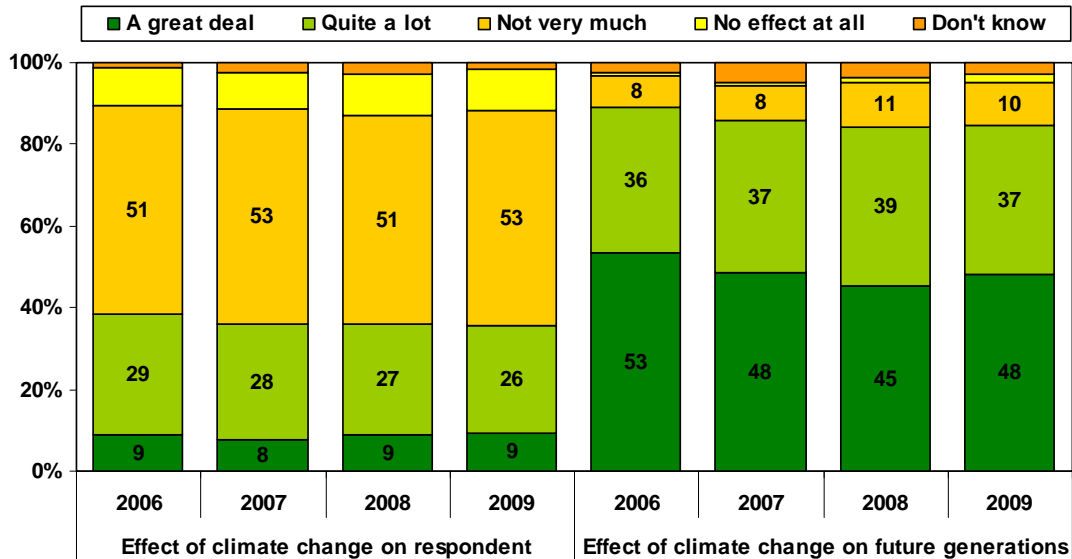
Source: Opinions Surveys - 2006, 2007, 2008, 2009.
Base number: 1215; 2236; 2178, 999.

3.8 More specifically, respondents were asked what they thought the consequences of climate change would be. The most commonly cited consequences of climate change in each survey were changes relating to the global climate or weather conditions, mentioned by just over 60% of respondents. Although, those adults mentioning changing global climate significantly decreased from 50% in 2006 to 41% in 2009. (Table A.7).

3.9 In each survey over a third of adults (35% in 2009) said that they believed that climate change would have a great deal or quite a lot of impact on them personally. So although the majority of adults express concern about climate change and believe that there is already some impact on the UK's climate, a far lower proportion believe that this will have an impact on them personally (Table A.10).

3.10 Respondents were more likely to believe climate change would have an impact on future generations, with 85% believing it would impact on future generations a great deal or quite a lot. The overall proportion has remained fairly similar over the last 3 years. (Figure 7 and Table A.11).

Figure 7 Perceived impact of climate change on respondent and future generations



Source: Opinions Surveys - 2006, 2007, 2008, 2009.
Base number: 1215; 2235; 2178; 999.

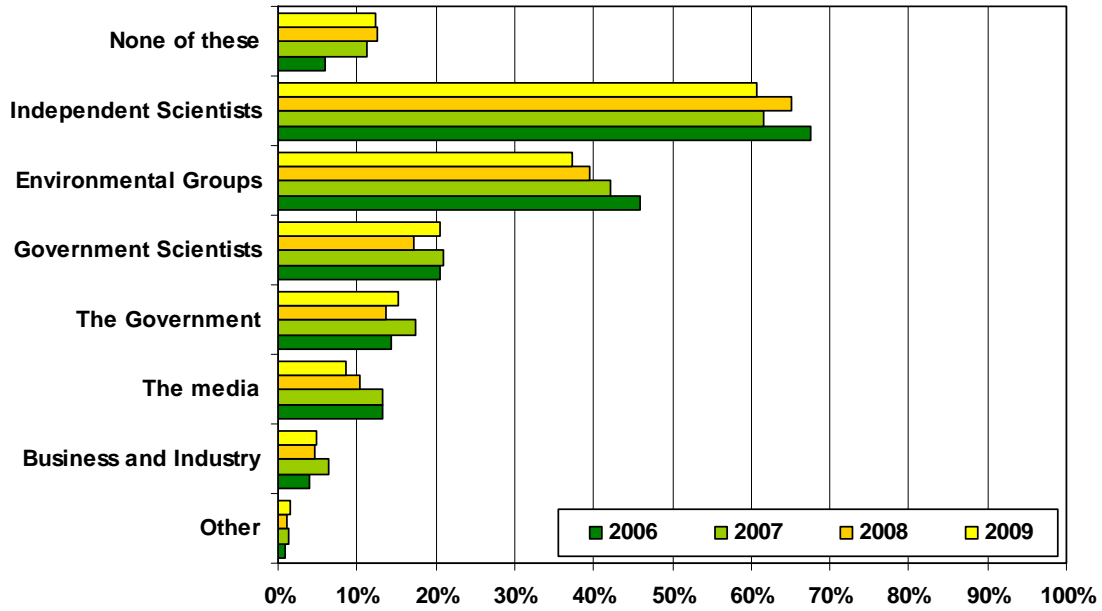
Source of information

3.11 Questions were asked addressing public trust in sources of information about climate change (Table A.12).

- In each survey the public were most likely to say that they trusted independent scientists (e.g. university research centres) to provide correct information about climate change (61% in 2009).
- Environmental groups were trusted by 37% of adults in 2009, which was significantly lower than in 2006 (46%).
- Government scientists and the Government more generally commanded lower levels of trust (20% and 15% respectively) than either independent scientists or environmental groups.
- The media commanded the trust of 9% of adults in 2009, down from 13% in 2006, a significant fall.

- The proportion of respondents not trusting any of the sources has increased significantly over time, from 6% in 2006 to 12% in 2009 (Figure 8, Table A.12).

Figure 8 Sources of information on climate change that are trusted to give correct information



Source: Opinions Surveys - 2006, 2007, 2008, 2009.
 Respondents could choose more than one answer.
 Base number: 1198; 2223; 2158; 995.

4. Attitudes towards reducing the impacts of climate change

- 4.1 Respondents to the survey were asked about the impact that different groups could potentially have on reducing the impacts of climate change and their views on their own personal contributions.

Potential to limit climate change

- 4.2 Respondents were asked to what extent climate change could be limited by the UK Government, industry and business, local communities and themselves as individuals (Tables A.13 to A.16).

- In each survey about twice as many respondents believed that industry and businesses could have a large influence in reducing climate change as believed that the UK Government could have a large influence. This was despite a significant fall in the proportion of adults believing industry and business could have a large influence between 2006 and 2009 (56% to 46%).
- Only a small proportion of respondents felt that their local communities (10%) or they themselves (6%) could have a large influence.
- Around two-thirds believed that they personally could have some or a little influence on climate change, while about a quarter said they could have no influence.

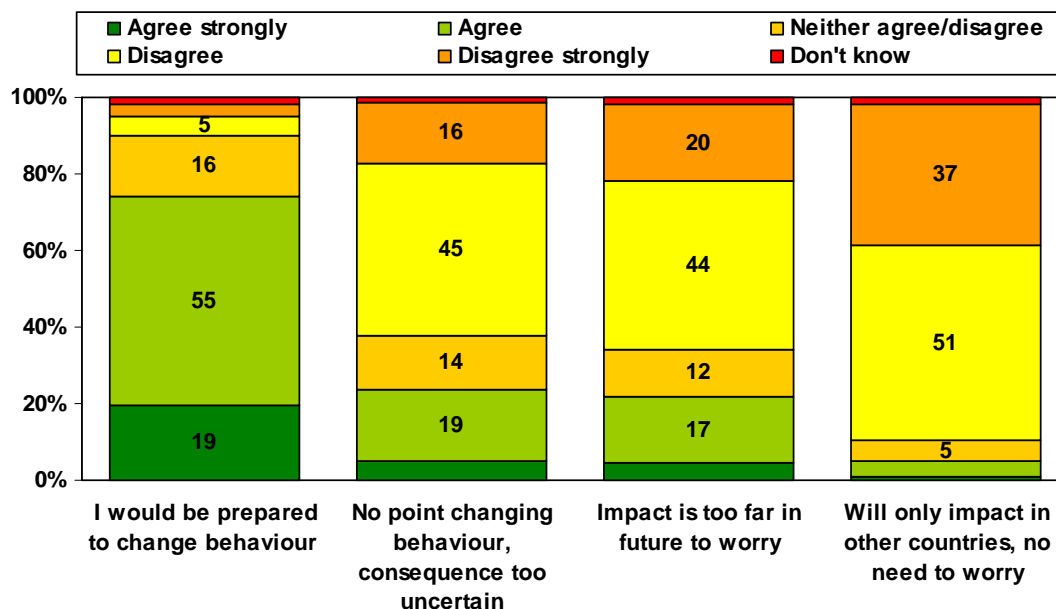
Potential for individual behavioural change

- 4.3 Respondents were asked whether they agreed or disagreed with the following statements:

- (A) *I would be prepared to change my behaviour to help limit climate change*
- (B) *There is no point in individuals changing their behaviour because the consequences of climate change are too uncertain*
- (C) *The impact of climate change is too far in the future for me to worry*
- (D) *Climate change will only have an impact in other countries so there is no need for me to worry*

4.4 Figure 9 presents the latest results from 2009. The results are generally similar in the earlier surveys (see Tables A.17 to A.20).

Figure 9 Attitudes to climate change and behaviour change



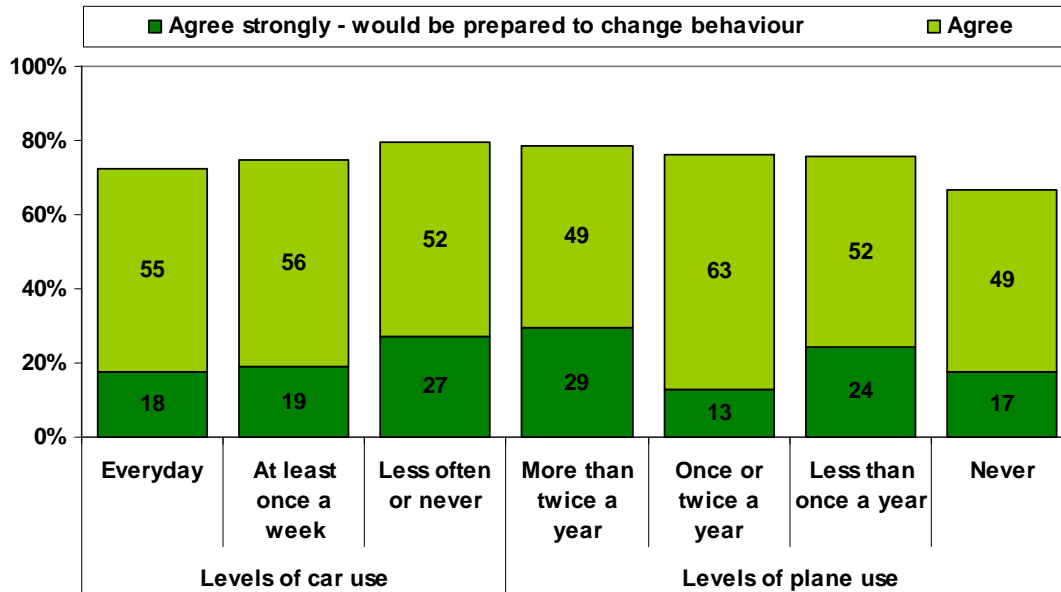
Source: Opinions Surveys - 2009.
Base number: 999

- Overall, in 2009 just under three-quarters of respondents (74%) agreed that they would be prepared to change their behaviour to help limit climate change. 8% disagreed while a further 18% indicated that they neither agreed nor disagreed or were unsure whether they would change their behaviour (Table A.17).
- Almost a quarter of respondents (24%) felt that there was no point in individuals changing their behaviour because of uncertainty about the consequences, while a similar proportion (22%) said that climate change was too far in the future to worry about. Very few respondents thought climate change would only impact on other countries (Tables A.18 to A.20).

4.5 The majority of adults across all socio-demographic groups said that they would be prepared to change their behaviour to limit climate change, although there was variation in levels of willingness across groups. Those aged 45-54, those earning £26,000 or more, those with degree or equivalent level qualifications or in managerial/professional groups, were particularly likely to agree that they would be willing to change their behaviour, while those aged 75 or over were most resistant to change (Table B.4 to B.7).

4.6 People who travelled by car less often were slightly more likely to agree that they were *prepared to change behaviour to help limit climate change* than those who used the car more frequently (Figure 10).

Figure 10 Willingness to change behaviour by travel patterns



Source: Opinions Surveys - 2009.

Base number: Car use - everyday=402; at least once a week=451; at least once a month/less often/never=97.

Plane use - more than twice a year=97; once or twice a year=301; less than once a year=334; never=264.

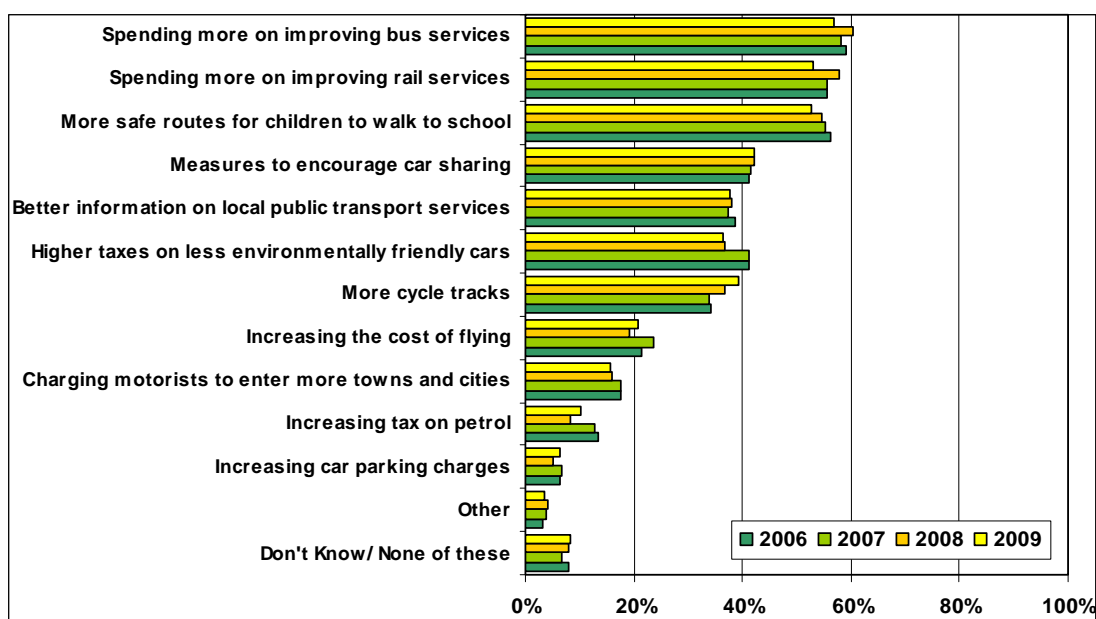
5. Support for policies to reduce transport emissions

5.1 Respondents were informed that the UK had signed an international agreement (Kyoto Protocol) committing the country to reduce emissions thought to cause climate change, including those from cars and domestic air travel. Respondents were then presented with a list of policies that could reduce emissions and asked which, if any, of these policies they would support.

5.2 Figure 11 presents the results from surveys in 2006, 2007, 2008 and 2009 (Table A.23).

- Over half the respondents supported each of the following: increased spending on bus and rail services and safer walking to school routes for children.
- Pricing measures aimed at reducing car and plane use were far less popular. Increasing tax on petrol was supported by 10% of respondents in 2009, lower than in 2006 (14%). Higher taxes on less environmentally friendly cars was the most popular pricing measure, although the level of support has decreased from 41% in 2006 to 37% in 2009. Increasing the cost of flying received support from about a fifth of respondents.

Figure 11 Policies respondents support to reduce transport emissions



Source: Opinions Surveys – 2006, 2007, 2008, 2009.
 Respondents could choose more than one answer.
 Base number: 1234; 2243; 2190, 1005.

5.3 There were also some differences in support for policies across various socio-demographic groups. Those on lower incomes were generally less likely to support pricing measures. Those people in the youngest age groups were most likely to support more cycle tracks (Table B.12).

Views on reducing car emissions

5.4 Respondents were asked a set of questions to assess their views on the role of individuals and the Government in reducing car use. Respondents were shown the following two statements and asked to select the one closest to their own views (Table A.24):

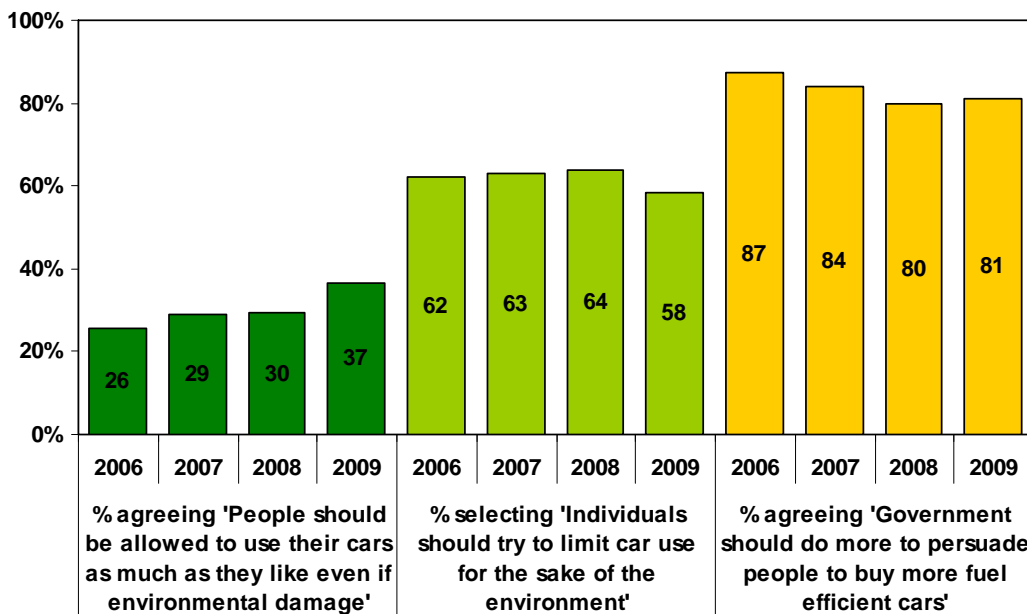
- a) *Individuals should try to limit their car use for the sake of the environment*
- b) *There is no point in individuals trying to limit their car use because not enough people will do it to make any difference.*

5.5 They were also asked whether they agreed or disagreed with the following statements (Tables A.25 and A.26):

1. *People should be allowed to use their cars as much as they like, even if it causes damage to the environment*
2. *Government should do more to persuade people to buy more fuel efficient, environmentally friendly cars.*

- Eight in ten adults supported the Government persuading people to purchase less environmentally damaging vehicles, although the proportion supporting has reduced from 87% in 2006 to 81% in 2009.
- 58% favoured individuals trying to limit their car use for the sake of the environment, a significant fall from 2008 at 64%.
- 37% agreed that *people should be allowed to use their cars as much as they like, even if it causes damage to the environment*, with almost exactly the same proportion disagreeing with this (the remainder were neutral). The proportion of adults who agreed was significantly higher in 2009 (37%) than in 2006 (26%) (Tables A.24 to A.26).

Figure 12 Attitudes towards measures to reduce car emissions



Source: Opinions Surveys – 2006, 2007, 2008, 2009.
 Base number: Statement 1 = 1235; 2244; 2191; 1005; Statement 2 = 1210; 2212; 2157; 988; Statement 3 = 1236; 2243; 2191; 1005.

5.6 Although levels of support for the Government persuading people to purchase more environmentally friendly cars were consistently high across all socio-demographic groups, there were some variations in attitudes towards unrestricted car use across groups (Tables B.8 to B10).

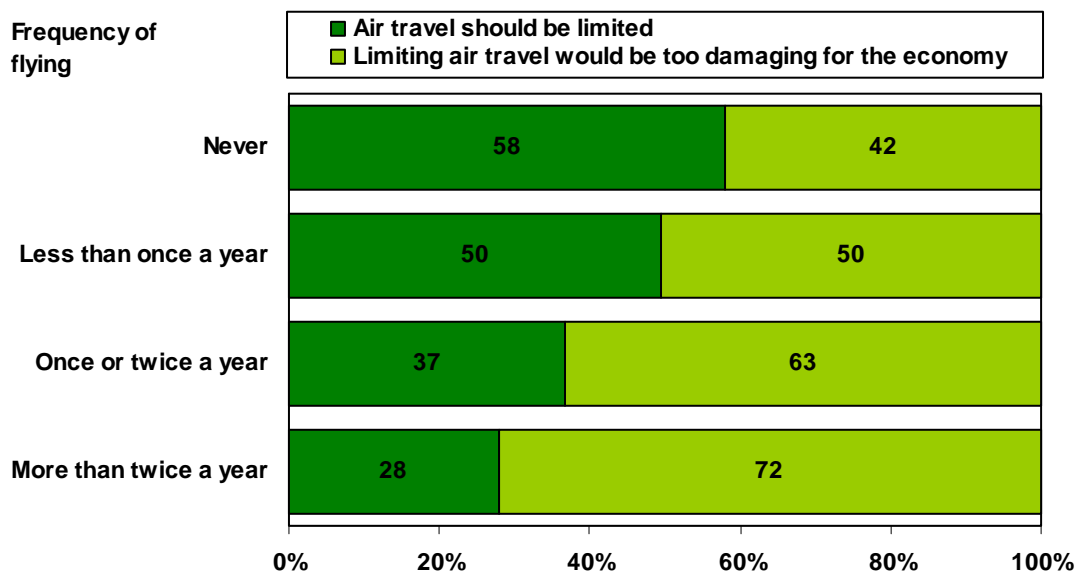
Views on reducing emissions from air travel

5.7 Respondents were presented with two statements regarding air travel and asked to select the statement that came closest to their own views:

- a) *Air travel should be limited for the sake of the environment*
- b) *Limiting air travel would be too damaging to the economy*

- Responses are reasonably consistent from year to year. In 2009 45% said that '*Air travel should be limited for the sake of the environment*', while 55% said that '*Limiting air travel would be too damaging to the economy*' (Table A.27).
- Those who travelled by plane more frequently were more likely to see limiting air travel as too damaging to the economy than those who never travelled by plane (42%). (Figure 13, Table B.11)

Figure 13 Whether air travel should be limited for the sake of the environment, by frequency of flying



Source: Opinions Surveys - 2009.

Base number: Plane use - more than twice a year=93; once or twice a year=290; less than once a year=318; never=245.

6. Potential for concerns about the environment to influence travel behaviour

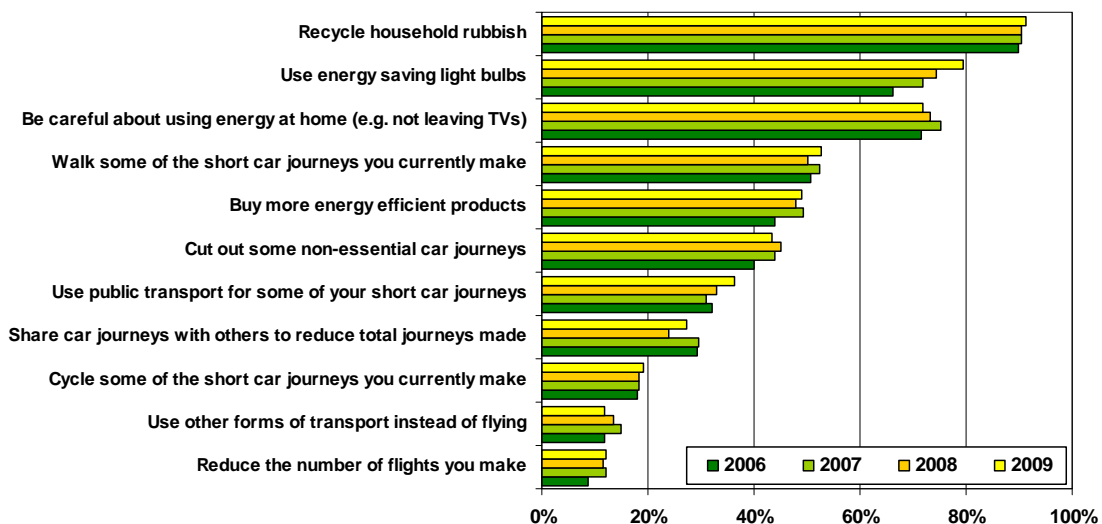
6.1 The Opinions Survey asked a range of questions to try and assess to what extent people were likely to change their travel behaviour due to concerns about climate change. The results are given below. It should be noted, however, that stated intentions may not necessarily translate into practice.

6.2 Respondents were asked what types of activities they were likely to undertake in the next 12 months due to concerns about climate change. The list of possible activities included transport-related activities and other types of activity. Figure 14 presents the results (Table A.28).

Further Analysis shows that:

- The activity that was most commonly mentioned was recycling, by around nine in ten.
- Three-quarters (77%) mentioned at least one activity related to reducing car journeys, most often walking some short journeys or reducing the number of non-essential journeys.
- Around a fifth mentioned reducing flights, including using other forms of transport instead of flying.

Figure 14 Activities likely to be undertaken in the next 12 months due to concerns about climate change



Source: Opinions Surveys - 2006, 2007, 2008, 2009.
 Respondents could choose more than one answer.
 Base number: 1223; 2216; 2181; 981.

6.3 There were some differences in the types of activities mentioned across various socio-demographic groups. Older people (65 to 74 year olds) were more likely to change to use public transport for some short journeys, while higher proportions of younger people were more likely to walk or cycle (Table B.13).

- 6.4 Respondents who mentioned that they were likely to reduce their car use or plane use due to concerns about climate change were asked to what extent they were likely to do so (Tables A.29 and A.30).
- Of those who mentioned reduced car use, around eight in ten said that they would travel by car a bit less, while under a sixth (16% in 2009) said they would reduce their car use a lot.
 - Of those who mentioned reduced flying, just over half said they would travel by plane a bit less (53%) and just over three in ten (31%) by a lot less.
- 6.5 Those who did not say they would reduce their car/plane use were asked the reasons for this.
- Car users who were not intending to reduce their car use often said a reason for this was the need to drive to work (23%) or inconvenience (12%). Many car users mentioned that they rarely used a car (13%) or did not own a car themselves (43%).
 - Among plane users who were not intending to reduce their number of flights, the most common reason for not reducing usage was the desire to go on holiday abroad (31%).
- 6.6 Survey respondents were also asked whether they would be prepared to pay more for a car that was less polluting than for an otherwise identical model if they were to buy a new car (Table A.32).
- In 2009, 11% of adults said they would be prepared to pay a lot more for a less polluting car, with a further 57% saying they would be prepared to pay a little more. A quarter said they would not be prepared to pay more, while 7% said they would not buy a new car.
 - The results were similar in 2008, however a higher proportion said they would be prepared to pay a lot more in 2006 (16%).
- 6.7 Table B.14 shows any differences across socio-demographic groups in willingness to pay more.

Links to further evidence:

In addition to the National Statistics Opinions (omnibus) Survey, the Department for Transport's understanding of public attitudes to climate change and travel choices is informed by a range of other evidence sources. This includes qualitative research evidence including findings from a major deliberative study entitled 'Exploring public attitudes to climate change and travel choices: deliberative research', which is available at <http://www.dft.gov.uk/pgr/scienceresearch/social/climatechange/>