

Trends in Great Britain's Modal Shift

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The RAC Foundation has commissioned a number of external experts to write a series of think pieces and occasional papers throughout the course of 2010/11. This paper is about *Trends in Great Britain's Modal Shift* and is report number 10/09b.

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Executive Summary

The British Social Attitudes survey provides a long term picture of how frequently adults in Britain use different forms of transport. In July 2007 the RAC Foundation for Motoring published a paper "Trends in Modal shift: An analysis of the British Social Attitudes Survey" which concentrated on comparing the changes in behaviour in London with the rest of Great Britain using data up to 2005. It showed that there was some evidence that by 2004/5 there was a switch from private car to public transport in London, with existing bus users using buses more frequently. There was also evidence that the increase in use of trains nationally was attributable to more people using trains occasionally, probably at the expense of the car or short flights.

The patterns first identified in 2007 have become quite clear. While the trends in car, bus and train usage in Britain outside London are similar (increased use of car and less use of bus but more occasional use of train) there has been a very distinct shift in travel patterns in London since 2004. Ten percent fewer Londoners are driving at all these days and there has been the same reduction in the proportion using their car two or more times a week. Bus use has shown an even more marked shift with 15% more people in London using the bus at least twice a week and a corresponding proportion fewer never using the bus. Regular train usage however has declined slightly. The increase in bus usage can be ascribed to improvements to the frequency and coverage of service and reduction in fares combined with an increase in population in inner London where there is a higher propensity to use buses. There are signs however that the trend to increased bus usage is slowing and may have reached a peak.

The increased occasional usage of the train nationally is reflected in other data such as the increased market share of rail over plane for longer inter-city journeys.

1. Introduction

In July 2007 the RAC Foundation for Motoring published a paper “Trends in Modal shift: An analysis of the British Social Attitudes Survey” which concentrated on comparing the changes in behaviour in London with the rest of Great Britain using data up to 2005.

This study updates the earlier work with data up to 2008 and looks at changes in behaviour by age and by area of the country, again with particular emphasis on the difference in behaviour in London.

2. British Social Attitudes Survey

The British Social Attitudes (BSA) survey is the leading social research survey in Britain and has been run by the National Centre for Social Research since 1983.

Each year around 3,300 randomly selected adults are asked to give their views on an extensive range of topics in a face-to-face interview. New areas of questioning are added each year to reflect policy changes and current affairs, but all questions are designed with a view to repeating them periodically to chart changes over time.

Questions have been asked on a number of aspects of transport, often sponsored by the Department for Transport. The Centre for Comparative European Survey Data at the London Metropolitan University has the data available online and has helped with additional analysis for this report, focusing on Greater London. Their help and that of the staff at NatGen are gratefully acknowledged

The questions which are used in this study have been asked consistently since 1993:

- Do you drive a car at all these days?
- How often nowadays do you usually travel by car as a driver? (drivers only)
- How often nowadays do you usually travel...
 - By car as a passenger?
 - By local bus?
 - By train¹

Until 2003 respondents were also asked about cycling.

Around a third of the total sample (1,100) is asked the transport questions which means that variations of 5% or more are significant; the London sample is around 100-110 people and therefore the reliability is much lower. However the long trend since 1993 adds an additional level of confidence in the data.

¹ In 2006 the question was altered to exclude underground, tram or light rail. This may introduce a slight degree of discontinuity amongst respondents in London. Although most Londoners would probably not consider travelling by underground was travelling by train, there may have been some who would have included underground journeys in their response to the train question.

Respondents are asked to estimate their frequency of use in the following categories:

- Daily/almost daily
- 2-5 days a week
- Once a week
- At least monthly
- Less often
- Never nowadays

There is also a very small number of “don’t knows” or “no answers”.

The first two categories have been combined to represent “frequent users” who are then compared with “never” as non-users.

Because of the relatively small size of the sample, the BSA survey is only analysed by six regions:

- Scotland
- North
- Midlands
- Wales
- South
- Greater London

and seven 10-year age bands.

3. National Travel Survey

The National Travel Survey (NTS), which is a diary based survey of travel behaviour in Great Britain, also undertaken by NatCen on behalf of the Department of Transport, covers 15,000 respondents each year. The questions asked in the NTS are similar to the BSA survey:

- How frequently do you travel by private car? (no distinction between driver and passenger)
- How frequently do you use local buses?
- How frequently do you use a train, not including underground, tram or light rail?

Questions are also asked about coaches, taxicabs, plane, walking (over 20 minutes) and cycling, but not motorcycling.

As in the BSA survey, respondents are asked to estimate their frequency of use but the categories are different which makes comparison difficult:

- 3 or more times a week
- Once or twice a week

- Less than that but more than twice a month
- Once or twice a month
- Less than that but more than twice a year
- Once or twice a year
- Less than that or never

The NTS is analysed by the eight English regions, Scotland and Wales and by eight 10-year age bands but slightly different from the BSA survey. Frequency of use data are only available for the period 2003 to 2009.

The main analysis that follows is based on the British Social Attitudes survey but reference is made to National Travel Survey data where relevant.

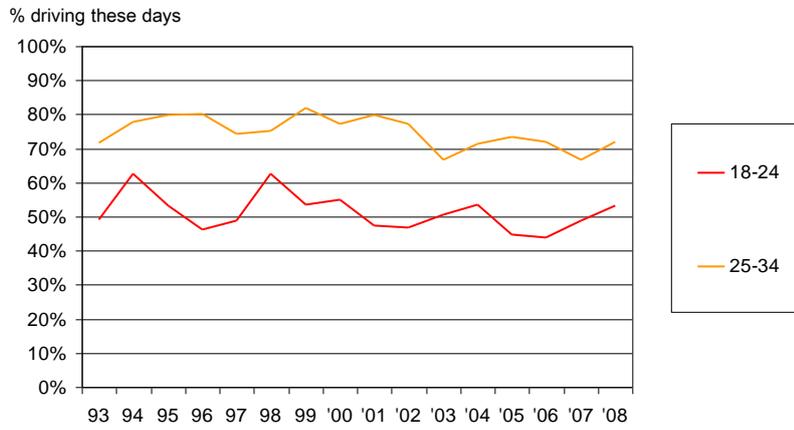
4. Frequency of driving

Nationally for all ages, around 70% of the adult population drive at all these days, compared with 60% in 1993. The increase has been most marked in the over 60s where the number driving has risen by over 50%, which is mainly among women where a generation who never learned to drive in the 1950s and earlier is being replaced by a generation who learned from the 1960s. The proportion of 18-24 year olds is 20 points lower than the average, as not everyone learns to drive at 17 and even if they do they may not have regular access to a car. Car usage by this age group has fluctuated as there was a distinct drop in those taking their driving test in the early 2000s attributed to the introduction of university fees.

The increase in the number of drivers has been strongest in Scotland and the North and less so in the south. However, the decline in London first noted in 2005 in the earlier study has become quite marked; car driving had been static from 1993 to 2004 but fell by 10 points from 2004 to 2008 although there may be some sign of a slight upturn. This appears to be a real change in behaviour as the question and sample size have not changed. The situation in London is reviewed in more detail in section 8

Chart 1a Use of car – by age under 35

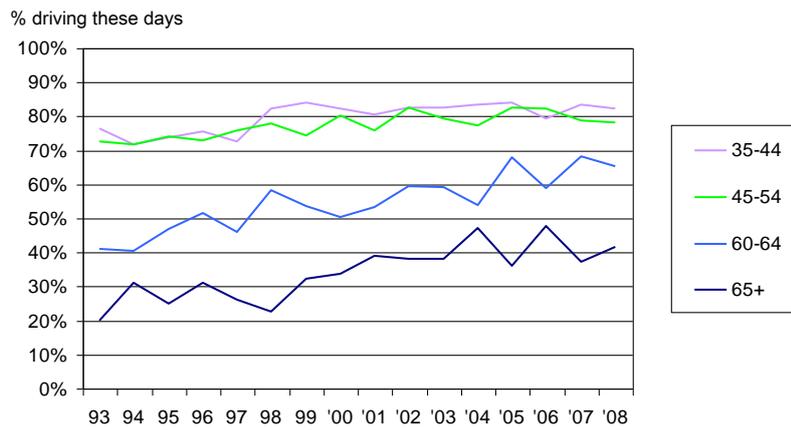
Question : Do you drive a car at all these days



Source: British Social Attitudes surveys

Chart 1b Use of car – by age over 35

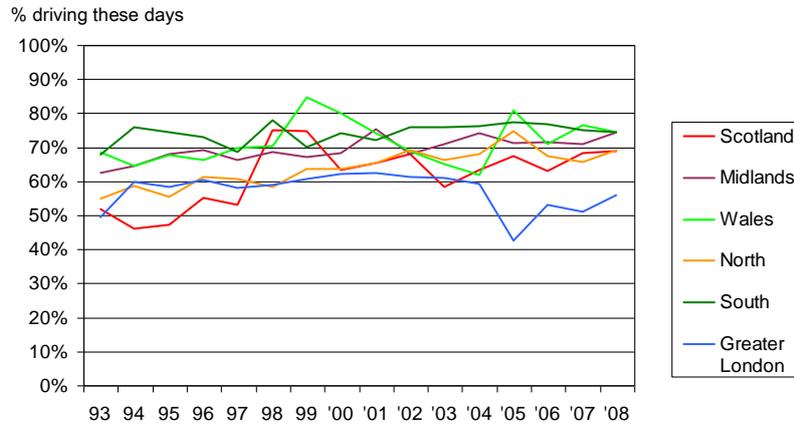
Question : Do you drive a car at all these days



Source: British Social Attitudes surveys

Chart 2 Use of car- by region

Question : Do you drive a car at all these days



Source: British Social Attitudes surveys

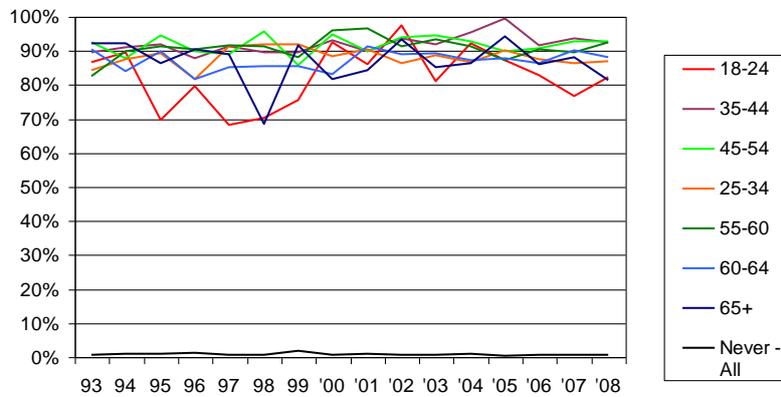
Nearly all (90%) of those who drive at all use their car nearly every day. This applies to all age groups so for example old drivers are just as likely to be using their car every day as younger people.

Regionally the picture is the same with little variation between regions with the exception of London where the decline in the number of people driving at all since 2005 is mirrored in a 10 point decline in the number using their car at least at least two days a week.

Chart 3 Frequency of driving by age

Question : How often do you usually travel as a driver
(those who said they drive a car at all these days)

% driving at least 2 days a week/Never



Source: British Social Attitudes surveys

Chart 4 Frequency of driving – by region

Question : How often do you usually travel as a driver
(those who said they drive a car at all these days)

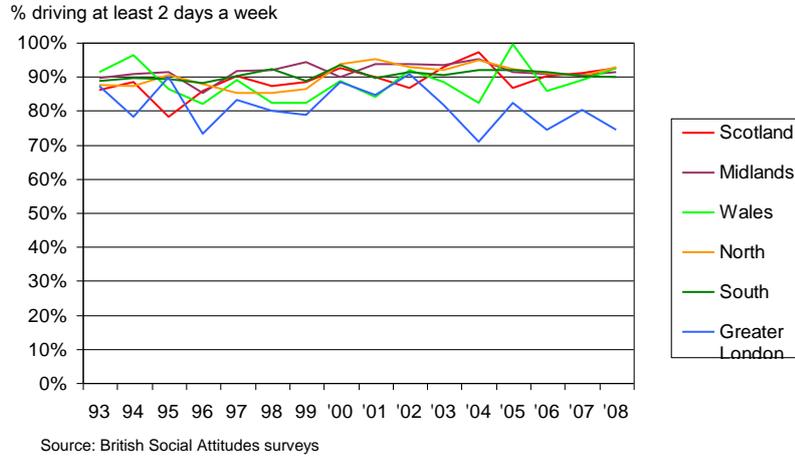
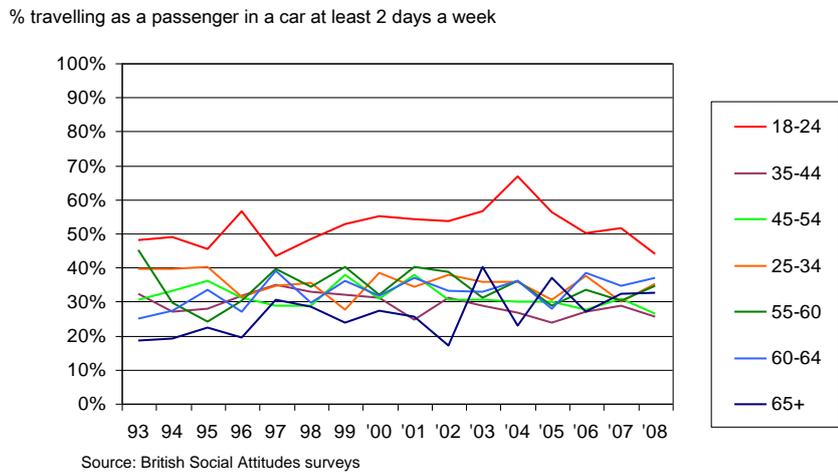


Chart 5 Frequency as car passenger - by age - 1

Question : How often do you usually travel as a passenger in a car

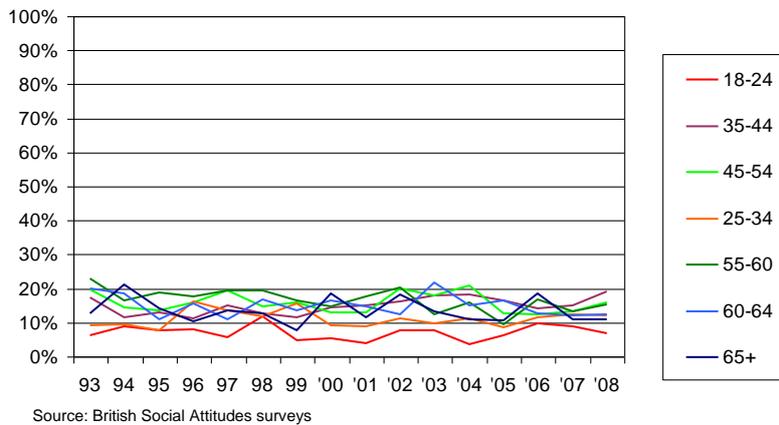


5. Use of the car as a passenger

Around a third of the population is a passenger in a car at least two days a week and only 10-15% never travels as a car passenger. As noted in section 4, the proportion of 18-24 year olds who drive regularly is below average so they are more likely to be frequent passengers and less likely never to travel as a passenger.

Chart 6
Frequency as car passenger - by age - 2
 Question : How often do you usually travel as a passenger in a car

% never travelling as a passenger in a car



Regionally there is no difference in the pattern of travelling as a passenger, with little variation over time or between regions with the exception of London since 2004 where there has been a decline but not as marked as that for drivers.

Chart 7
Frequency as car passenger - by region 1
 Question : How often do you usually travel as a passenger in a car

% travelling as a passenger in a car at least 2 days a week

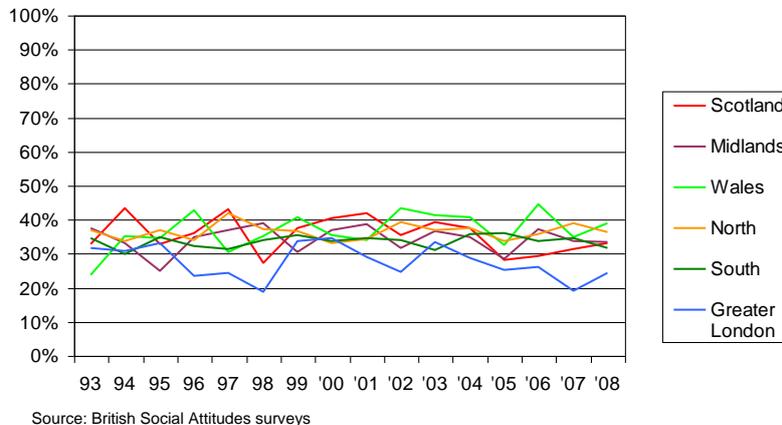
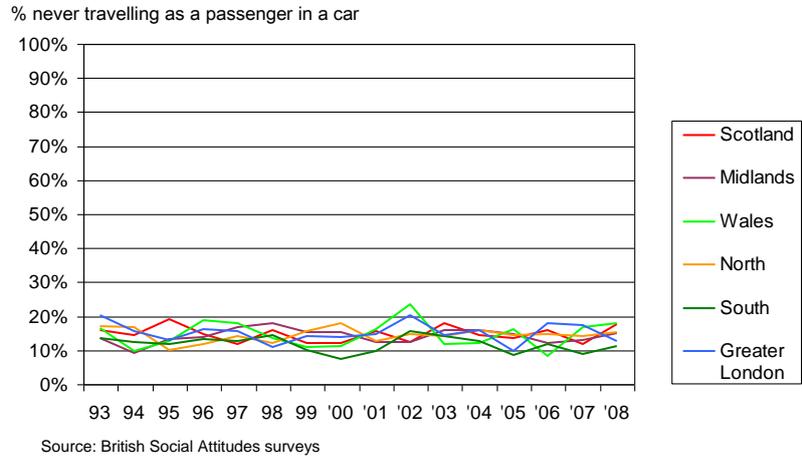


Chart 8 Frequency as car passenger - by region - 2

Question : How often do you usually travel as a passenger in a car



6. Use of buses

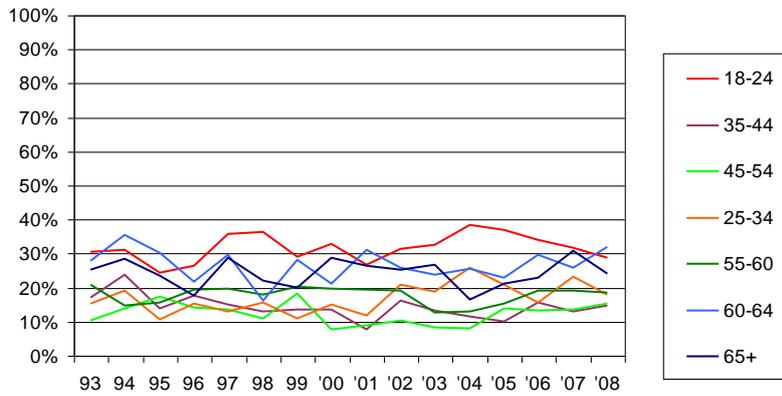
About 20% of the population uses the bus regularly, about the same as in 1993 but a recovery from the low of 17% in around 2000. As Charts 11 and 12 shows this is due to a significant increase in bus use in London. Middle aged people use the bus the least; young people use it because they do not have access to cars. Those over 60 use the bus more (around 25%) but there has been an increase to nearly 30% reflecting the availability of free bus travel for this age group. However, this is not at the expense of car use as noted in section 4 where more older people are becoming regular car users.

NTS data show a similar pattern with those aged 17-20 using a bus less frequently – 42% used a bus three or more times a week in 2003 which fell to 32% in 2009 compared with a rise in those never using a bus from 22% to 27%. At the other end of the age spectrum, frequent usage by those over 60 rose from 16% to 22% and those never using the bus dropped from 46% to 31%

Chart 9 Frequency of bus use - by age - 1

Question : How often do you usually travel by bus

% travelling by bus at least 2 days a week

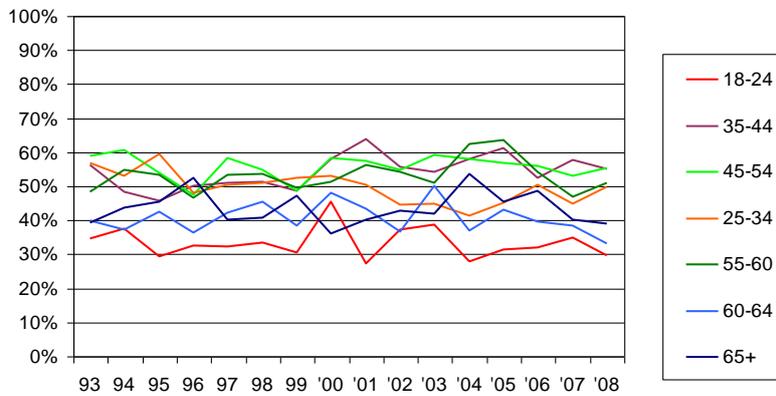


Source: British Social Attitudes surveys

Chart 10 Frequency of bus use - by age - 2

Question : How often do you usually travel by bus

% never travelling by bus



Source: British Social Attitudes surveys

Between 10 and 20% of people use the bus at least two days a week. Those in Wales and the south are least likely to use the bus – the former because the geography makes bus services difficult to provide while in the south there is greater car ownership. Over the past 15 years, there has been a small and nationwide reduction in those using the bus frequently with the notable exception of London. Even in the 1990s 35% of the London population was using buses regularly but this has risen to 50% since 2001, with a sharp increase in usage since 2003 offset by a similar sharp decline in those never using the bus. The NTS show a similar pattern:

Table 1: Usage of buses in London

% using the bus	2003	2008(BSA) 2009(NTS)
At least two days a week (BSA)	36	49
At least once a week (NTS)	40	58
Never (BSA)	29	15
Never (NTS)	23	13

Travel in London is analysed in more detail in section 8.

Chart 11
Frequency of bus use - by region - 1

Question : How often do you usually travel by bus

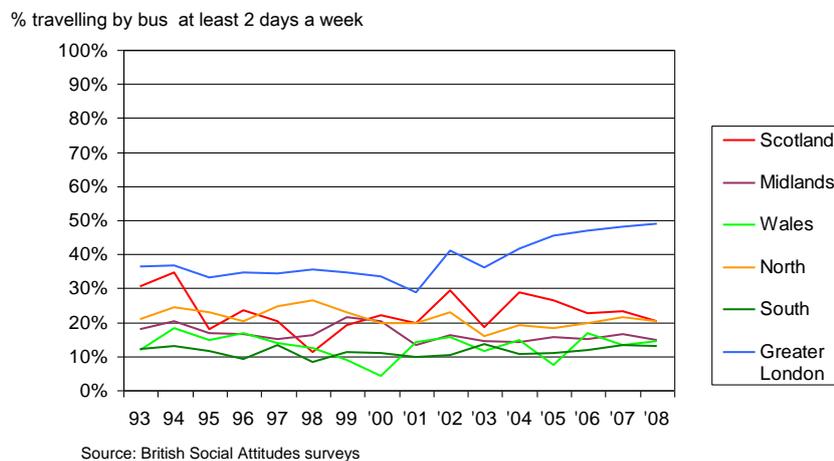
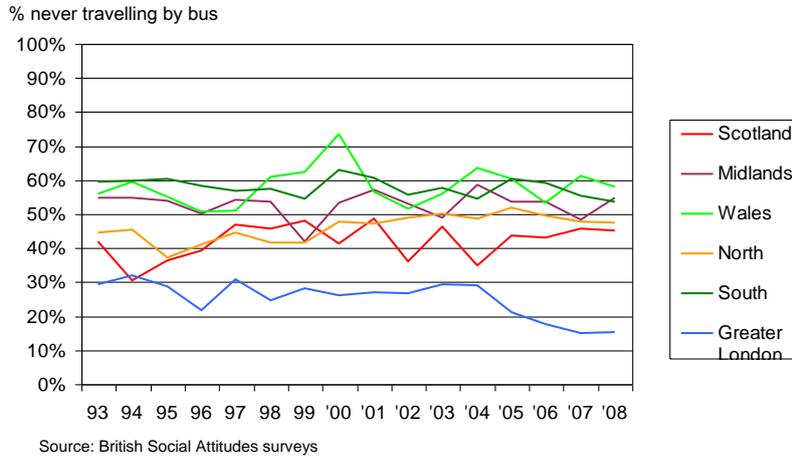


Chart 12
Frequency of bus use - by region - 2

Question : How often do you usually travel by bus



7. Use of the train

Only 5% of the population uses trains regularly, with young people using them slightly more and older people less. This reflects working patterns as most regular users will be commuters, with fewer people using the train regularly for other activities such as shopping (52% of all rail and underground journeys are for commuting²). This pattern has remained unchanged since 1993. The proportion never using the train however has fallen from over 50% in the 1990s to around 42% in 2008. It would appear that the growth in train usage has come primarily from infrequent users using the train more and non-users starting to use the train, probably substituting longer car journeys and short haul internal air flights. According to the Association of Train Operating companies, between 2006 and 2009, total journeys by rail on the 10 most popular domestic air routes rose by 31 per cent, while over the same period, numbers using domestic aviation fell by 20%³.

² Source NTS. The Labour Force Survey of how people travel to work shows a very slight increase in the number using national rail to get to work over the period. The Office of Rail Regulation data for the number of rail journeys shows the biggest percentage increase since 2003 has been in long distance operators (45%), compared with a 24% increase in London and the south east operators which will be largely commuters. However the largest absolute increase in passengers has been in London and the South East. See appendix 1 for more detail

³ Source: Association of Train Operating Companies Sept 2010.

Chart 13 Frequency of train use - by age - 1

Question : How often do you usually travel by train

% travelling by train at least 2 days a week

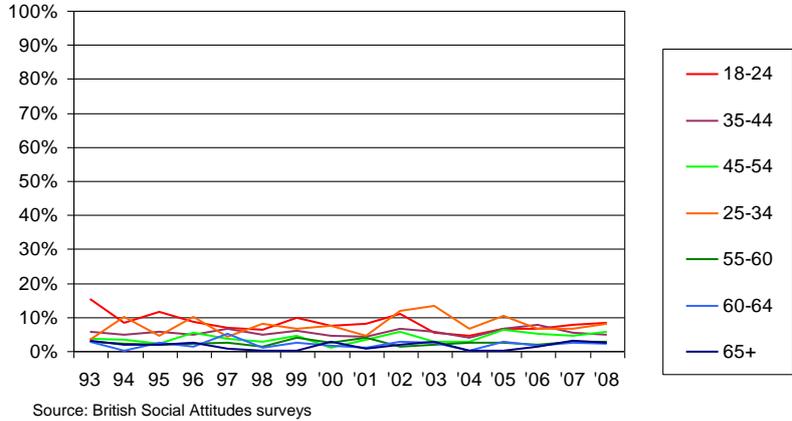
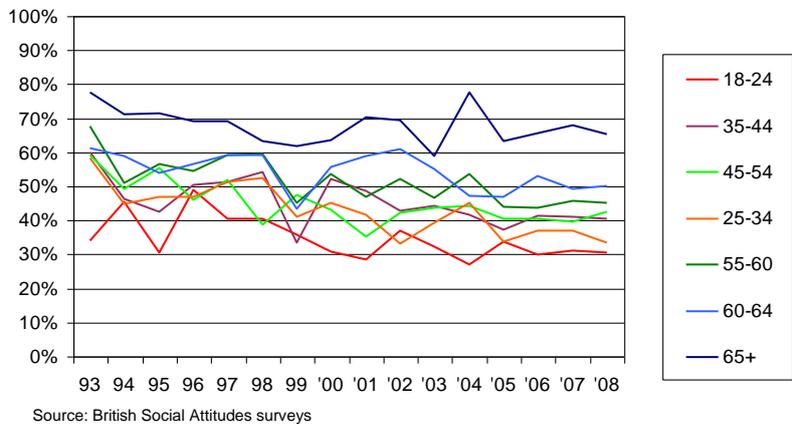


Chart 14 Frequency of train use - by age - 2

Question : How often do you usually travel by train

% never travelling by train

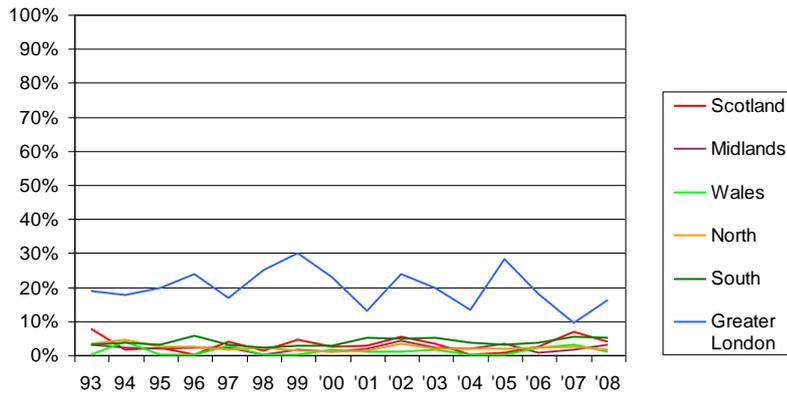


Geographically, Londoners are four times more likely to use the train regularly as it is a primary method of commuting particularly from south London. However there does appear to be a slight decline in regular train use in London possibly as people switch to the buses which have become more frequent and more reliable while the trains have become more crowded. This may also reflect a large number of people working occasionally from home and therefore travelling less regularly, as there has been an increase in those travelling by train more than once a month but less that travel two days per week.

Chart 15 Frequency of train use - by region - 1

Question : How often do you usually travel by train

% travelling by train at least 2 days a week

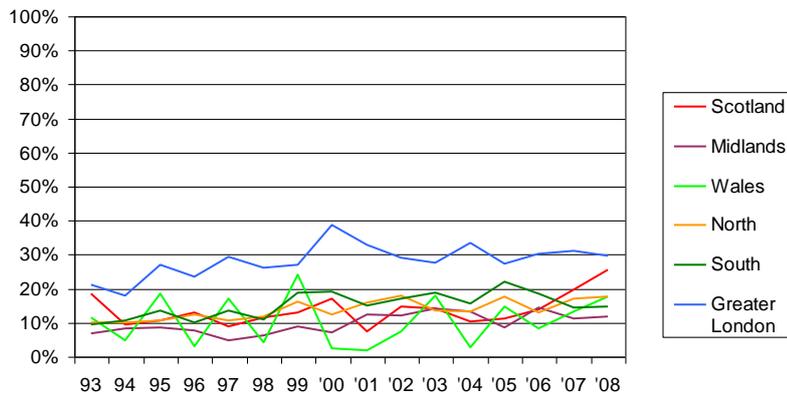


Source: British Social Attitudes surveys

Chart 16 Frequency of train use - by region - 2

Question : How often do you usually travel by train

% occasionally travelling by train – at least monthly

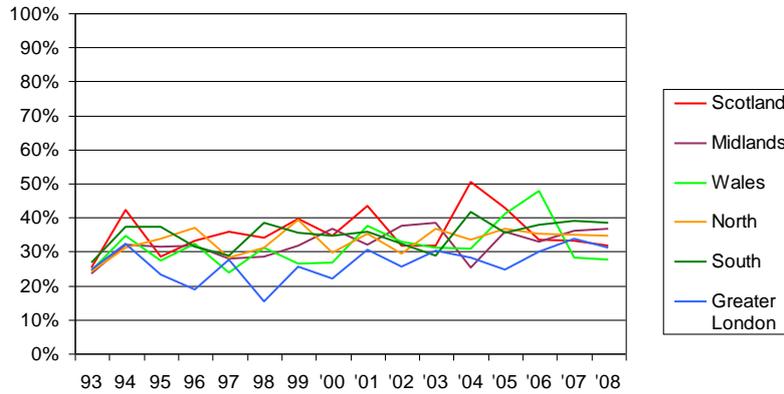


Source: British Social Attitudes surveys

Chart 17
Frequency of train use - by region - 3

Question : How often do you usually travel by train

% occasionally travelling by train – less than once a month

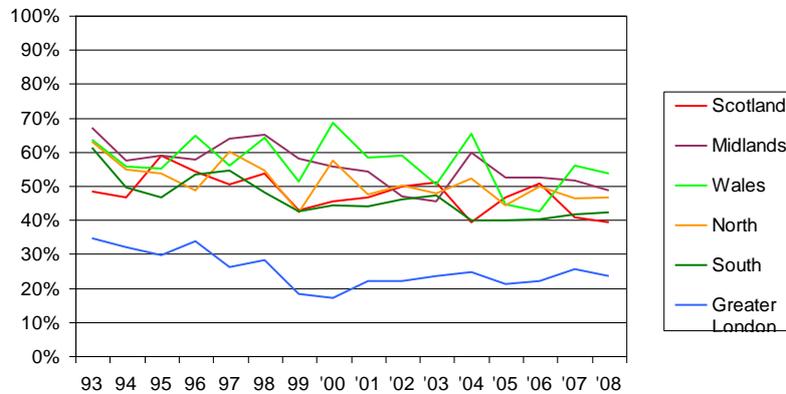


Source: British Social Attitudes surveys

Chart 18
Frequency of train use - by region - 4

Question : How often do you usually travel by train

% never travelling by train



Source: British Social Attitudes surveys

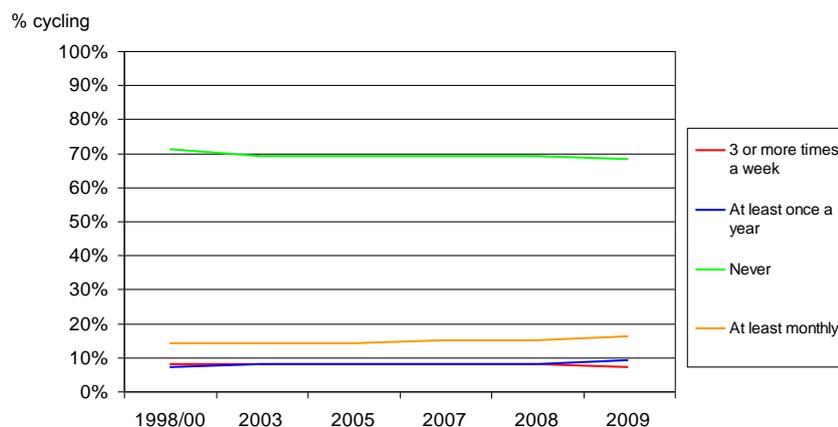
NTS data mirrors the BSA data with an increase from 41% to 46% from 1998/2000 to 2008 in the number using the railways occasionally (more than once a year but less than twice a month) and a decline in those never using the train from 51% to 44% over the same period.

8. Cycling

The British Social Attitudes survey stopped asking questions on cycling in 2003 but the National Travel Survey has asked questions periodically on cycling. Nationally around 14% of the population cycles at least once a week, almost constant since 1998/2000 although the number who cycle occasionally has risen from about 15% to 18% with a corresponding drop in those who never cycle from 71% to 68%. However, the proportion who cycle regularly or never varies considerably by region with those in the south being the most regular (19% cycle once or more times a week) and those in London and Scotland being the least likely to cycle regularly (14%). Those in Greater London show the greatest propensity not to cycle at all - 71% never cycle compared with only 59% in the south. The high usage in the south is quite surprising given the high car ownership but this may reflect more recreational and social cycling than use of the bicycle as a mode of transport. In Scotland the climate and terrain probably inhibit cycling while in London the traffic and the good public transport may be the reasons. The figures are based on the average for 2003-2009 but there has been an upward trend in cycling in London following active promotional campaigns by Transport for London. The highest use of bicycles tends to be in the inner boroughs usually by young people who use their cycles in lieu of walking or public transport for commuting. See chart 22 for more details.

Chart 19
Frequency of cycling nationally

Question : How often do you cycle



Source: National Travel Survey – note uneven scale of years

Table 2: Frequency of cycling by region 2003-2009 average

%	Once a week or more	Occasionally	Never
North	16	17	68
Midlands	18	21	62
South	19	23	59
Greater London	14	14	71
Wales	16	17	68
Scotland	14	17	68

Source: National Travel Survey, special analysis

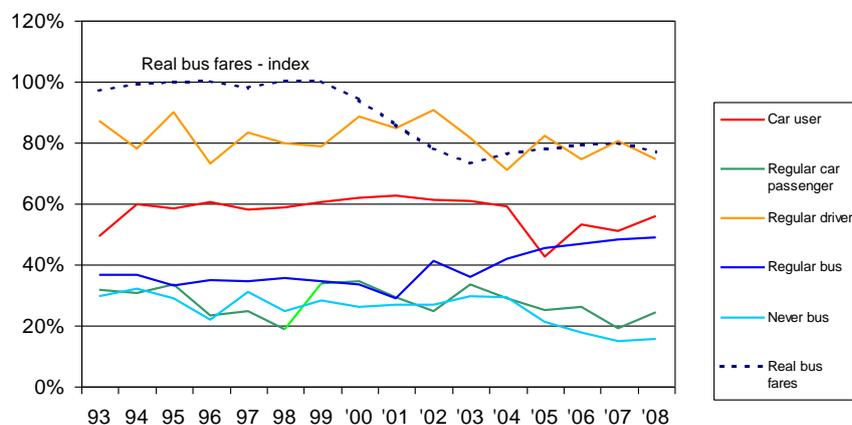
9. Travel in London

The following charts focus on changing patterns in London. As already noted, there has been a shift in travel patterns in London since around 2004 which was just beginning to be observable at the time of the original study but which has become clearer with the extra data to 2008. Those using the car at all have declined by 10 points while fewer of those who do drive are using the car frequently, and fewer people are regular car passengers. The number of regular bus users has gone up by 13 points offset by a 10 point decline in those who never use the bus. Train usage however has gone down slightly.

The increase in bus usage follows (by about two years) the 20% decline in real bus fares which was accompanied by a massive increase in frequency and coverage of bus routes in London, paid for by a large increase in the government grant to

Chart 20

Behaviour in London Buses



Real bus fares from Transport in London Report 2 – TfL 1999/00 =100

Source: British Social Attitudes surveys

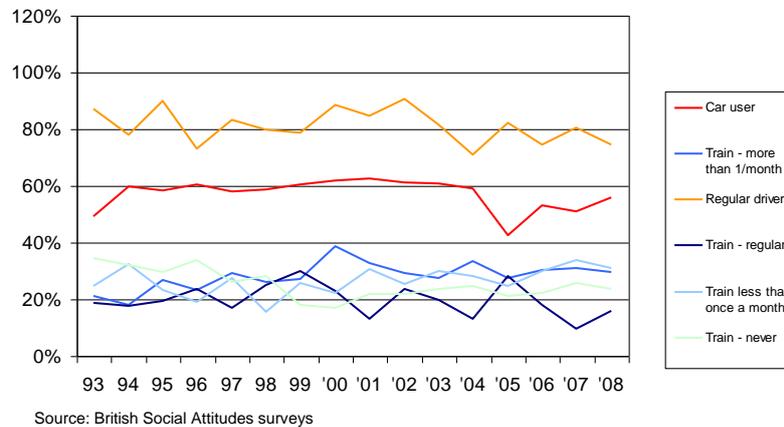
London. The number of bus journeys has risen by 73% between 1999 and 2008 while the distances travelled per person by car as a driver and as a passenger have fallen by 27% and 20% respectively⁴.

Table 3: Travel in London

% of adult population	1999-2002	2005-2008
Car driver at all	61%	51%
Regular driver	86%	78%
Regular car passenger	30%	24%
Never travel as car passenger	16%	14%
Regular bus user	34%	47%
Never travel by bus	27%	17%
Regular train user	22%	18%
Occasional train user	32%	29%
Use train less than once a month	26%	30%
Never use train	20%	23%

Source: British Social Attitudes Survey

Chart 21
Behaviour in London
Trains

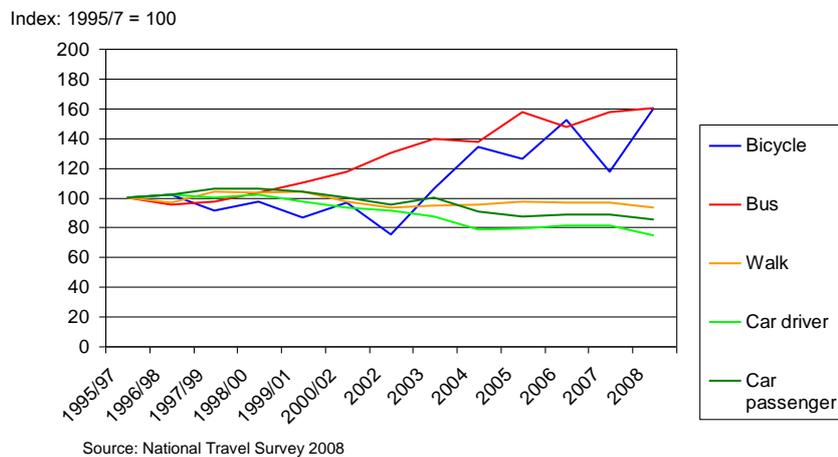


⁴ Travel In London Report 2 Table 2.4 TfL

Table 4: Usage of trains in London

% using the train	2003	2008(BSA) 2009(NTS)
Daily/some days a week ((BSA)	20	16
At least once a week (NTS)	9	8
Never (BSA)	23	23
Never (NTS)	38	30

Chart 22
Distance travelled in London



This chart shows the rise in bus usage from NTS data which shows an increasing trend from 2000/02 the same time as the BSA data shows (Chart 20) with distance travelled by bus in 2008 being 60% higher than in 1995/97. The decline in car usage either as a driver or passenger is about 20%, rather less the BSA data show. This chart also shows how the distance cycled hardly varied from 1995/97 to 2003 but since then it has risen by 60%. Counts of cyclists on main roads in London suggest an even greater increase, up to 90%.⁵

⁵ Travel in London Report 2 Fig 13.4

Table 5: Average number of daily trips by main mode in London (millions)

	Average 1993-1996	Average 1999-2002	Average 2005-2008	Increase 1993 to 2008
Car driver	6.7	6.8	6.4	-0.4
Walk	5.2	5.5	5.7	0.2
Car pax	3.6	3.6	3.6	0.0
Bus	2.2	2.5	3.3	0.8
Underground	1.5	1.9	2.0	0.1
Rail	1.3	1.7	2.0	0.3
Cycle	0.3	0.3	0.5	0.2
Taxi	0.3	0.3	0.3	0.0
M/c	0.2	0.2	0.2	0.0
Total	21.2	22.8	24.0	1.2

Source: Travel in London Report 2 Table 2.1– TfL

Overall during the period 1993 to 2008 the number of trips in London increased by 17% of which 11% is increase in population and 6% increase in usage.

The change in car and bus usage is partly a change in individual behaviour and partly a change in demographics, both the size of the population and the areas where growth has occurred. Since 1993, the population in Greater London has increased by 11%⁶ but the increase has been much greater (approximately 18%) in inner London than in outer London (8%)⁷. Inner London residents are much more likely than outer London residents to use buses than cars. 15% of travel distance by inner London residents is by bus compared with 9% in outer London and 40% by car compared with 64%⁸ because of the greater availability of buses and lack of parking in inner London. This has contributed to the increased usage of buses overall.

There are signs however that the trend to increased bus usage is slowing and may have reached a peak.

10. Conclusions

The British Social Attitudes survey provides a valuable source of information about the frequency of travel by different modes in Britain and now has consistent data over nearly 20 years. The National Travel Survey provides complementary statistics based on travel diaries and responses to questionnaires with larger samples but travel frequency questions are not asked every year and do not include separate information about car drivers and passengers which are the two major modes of travel.

The BSA data show that travel patterns over the past 16 years have been remarkably consistent. There has been a steady increase in the number of people who drive at all, especially amongst those over 60. The reliance of car owners on

⁶ TfL Travel In London Report 1 Table 13.1

⁷ Based on GLA and ONS data

⁸ Travel in London Report 1 Table 9.10

their car is shown by the fact that nearly all (90%) of those who drive at all use their car nearly every day. This applies to all age groups with older drivers are just as likely to be using their car every day as younger ones. The number of regular bus users has declined steadily but there has been an increase in occasional use of the train where some long car and air journeys have been replaced by train journeys.

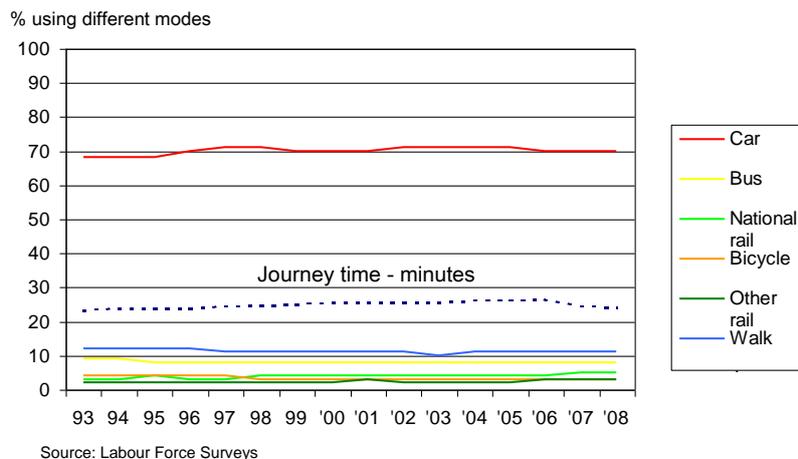
The pattern has not varied significantly across the country except in London where there has been a distinct change in behaviour since around 2003. Car usage has fallen, possibly because of congestion⁹, and bus usage has risen, driven by lower bus fares and increased service provision (more routes, more frequent buses) which has been made possibly by heavy subsidies. Bus fares in London for example cover about two thirds of the operating costs the rest (around £1 billion per year) being met by government grants. There appears to be a slowing down in the usage of buses in the last year or two, partly an effect of the recession and possibly saturation of the market. If a reduction in the government grant leads to a reduction in service levels then bus usage may decline more sharply.

⁹ The congestion charge in central and western London has led to a 15% - 20% reduction in traffic in these areas. However the reduction in car usage in these zones is less than 0.25% of the total traffic in London because most of the vehicle mileage is in outer London and only a very small number of people tend to drive in central London during the week.

Appendix: Travel to Work/Use of rail

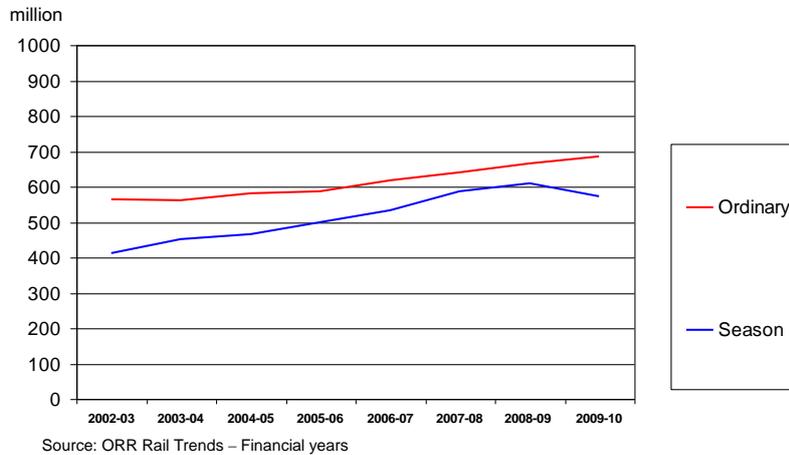
The Labour Force asks all those in employment how they normally travel to work. The vast majority travel by car (70%) with the next most frequent being walking (11%) and bus (8%). Rail is 5% and cycling and other train (including underground and trams) both 3%. Overall there has been very little shift in mode over the past 15 years although there has been a very slight increase in rail commuting.

Chart A1
Normal means of travel to work



The following two charts are based on data from the Office of the Rail Regulator and show the number of rail journeys on National Rail by type of ticket and by type of operator. They are only available for the past eight years. There has been an overall increase of 29% in rail journeys over this period – 21% in travel with ordinary tickets and 39% with season tickets although this has fallen in the past year as an effect of the recession.

Chart A2
Rail journeys by type of ticket



London and south east operators dominate rail travel with 67% of all journeys, followed by regional operators with 24% while long distance operators only take 9%. Long distance travel has increased by 45% in the past eight years, regional by 39% and London and the south east by only 29% although in terms of the absolute number of journeys, the increase in London and the south east is a third more than the other two combined. The recession-induced decline in season ticket usage in the last year is mirrored in the decline in London and the south east.

Chart A3
Rail journeys by type of operator

