## National Travel Survey

## Statistical Release

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Key Findings ..... 1
Trends in personal ..... 2
travel
How people travel ..... 3
Why people travel ..... 7
Travel by age, gender ..... 9and income
Background notes ..... 15
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## National Travel Survey: 2011

This Statistical Release presents information on personal travel in Great Britain during 2011.

The 2011 National Travel Survey (NTS) is the latest in an established series of household surveys of personal travel in Great Britain. The survey is primarily designed to track long-term development of trends in travel, although short-term changes can also be detected.

NTS data is collected via two main sources - interviews with people in their homes, and a diary that they keep for a week to record their travel. The NTS covers travel by all age groups, including children. In 2011, diary data was collected from 7,700 households, covering over 18,000 individuals. This is slightly less than in previous years due to a small subsample being used for an experiment to collect data using a GPS device.

## The key findings from the 2011 NTS include:

- In 2011, residents of Great Britain made an average of 958 trips per person and travelled 6,826 miles. The average trip length was 7.1 miles.
- Between 1995/97 and 2011, overall trips rates fell by 12\%. Trips by private modes of transport fell by $13 \%$ while public transport modes increased by $3 \%$. Walking trips saw the largest decrease.
- By purpose, most of the decline in overall trips rates between 1995/97 and 2011 can be accounted for by a fall in shopping and visiting friends.
- Trips by car (as a driver or passenger) accounted for $64 \%$ of all trips made and 79\% of distance travelled in 2011.
- On average, females make more trips than males, but males travel much further each year.
- In 2011, $79 \%$ of males and $65 \%$ of females had a full driving licence.
- Since 1995/97 the average number of car driver trips by men has fallen by $18 \%$ and average distance travelled fell by $16 \%$, while car driver trips and distance travelled by women increased by $11 \%$ and $23 \%$ respectively. Men still drive nearly twice as many miles per year than women.
- Concessionary travel pass take-up in 2011 was $79 \%$ of those eligible ( $82 \%$ of females and $76 \%$ of males).


## 1. Trends in personal travel

The basic unit of travel in the National Travel Survey is a trip, defined as a one-way course of travel with a single main purpose.

Since the early 1970s, the average distance people travel per year has increased by $53 \%$. Most of this growth occurred during the 1970s and 1980s and was largely due to an increase in average trip lengths, which have risen by $52 \%$ since the early 1970s. Trip rates increased until the mid1990s, but have since fallen back to close to the 1970s level. Since the late 1990s, the average distance travelled and average trip lengths have generally levelled off.

Trips and distance travelled - index: Great Britain, 1972/73 to 2011
(NTS web table NTS0101)


Note: NTS data from 1995 onwards are weighted, causing a one-off uplift in trips and distance travelled between 1992/1994 and 1995/97. Time series comparisons in the rest of this Statistical Release will mainly be based on 1995/97 to 2011.

Between 1995/97 and 2011 there was a steady falling trend in trip rates. In 2011 the average person made 958 trips per year compared to 1,086 in 1995/97 - a fall of 12\%.

The average distance travelled per person per year is only $2 \%$ lower in 2011 than in 1995/97, 6,826 miles compared to 6,981 . Distance travelled peaked in 2005 at 7,208 miles.

The average trip length increased by $11 \%$ from 6.4 miles in $1995 / 97$ to 7.1 miles in 2011.
Time spent travelling remained fairly static over the last 15 years at around an hour a day. In 2011, residents of Great Britain spent an average of 364 hours per year travelling compared to 369 hours in 1995/97. Average trip time has increased by 12\% over the period, from 20.4 minutes to 22.8 minutes.

Detailed statistics (tables and charts) on "trends in travel patterns" can be found on the National Travel Survey 2011 web page at: https://www.gov.uk/government/publications/national-travel-survey-2011, table numbers NTS0101 to NTS0108

## 2. How people travel

This section presents statistics on how residents of Great Britain travelled in 2011. The statistics include a breakdown of trips and distance travelled by private and public transport modes.

Mode share: Great Britain, 2011
(NTS web tables NTS0301 and NTS0302)

## Average number of trips



Average distance travelled


The mode share chart on the left shows the proportion of all trips taken by different modes of transport. In 2011, 64\% of all trips were made by car (as a driver or a passenger), the same proportion as in 2010.

Car travel again forms the largest proportion when the mode share chart as presented in terms of distance travelled. In 2011, 79\% of total distance travelled was by car.

In 2011, 25\% of households in Great Britain did not have access to a car, while 43\% had one car and the remaining $32 \%$ has two or more cars. This influences mode choice and travel patterns.

Buses (both local and non-local) account for a greater proportion of all trips than rail (both surface rail and London Underground) at $7 \%$ and $3 \%$ respectively. However, as bus trips on average are shorter in length, they account for only 5\% of total distance travelled whereas rail accounts for $8 \%$.

Private modes of transport
In 2011, 89\% of all trips were by private transport modes. Trips by private transport modes have made the largest downward contribution to the decline in overall trip rates since 1995/97 with a $13 \%$ fall, with walking trips in particular falling significantly. In 2011, the average number of walking trips was 222 trips per person per year compared with 292 trips in 1995/97, a decrease of $24 \%$. However, $79 \%$ of all trips less than one mile in length were walking trips.

Presenting trip rate data as indices means that the change in the number of walking trips since 1995/97 can be compared with the change in other private transport modes such as car/van travel (as a driver or passenger) and cycling.

Average number of trips by selected private transport modes - index:
Great Britain, 1995/97 to 2011
(NTS web table NTS0103)


The index chart shows that between 1995/97 and 2011 the average number of car/van driver and passenger trips has fallen by $7 \%$ and $12 \%$ respectively. In terms of distance travelled, the number of car/van driver miles per person per year has decreased by 5\% between 1995/97 and 2011. Across the same period, the average trip length for car/van drivers has remained constant at around 8.5 miles along with an average trip time at around 21 minutes.

There is annual volatility in the cycling data because of the relatively small number of cyclists in the NTS sample. The volatility reflects the difficulty in measuring this relatively uncommon mode of transport. In 2011, only 2\% of all trips were made by bicycle.

There has been a small drop in the number of bicycle trips per person per year from 18 trips in 1995/97 to 16 trips in 2011. In terms of the number of stages ${ }^{1}$, a similar sized decrease can be observed, from 19 stages per person per year in 1995/97 to 16 stages in 2011. However, in terms of distance travelled, the average number of bicycle miles has increased by $14 \%$ from 43 miles in 1995/97 to 49 miles in 2011. The decrease in the average number of bicycle trips and the corresponding increase in the average number of bicycle miles has resulted in the average bicycle trip length increasing from 2.3 miles in 1995/97 to 3.0 miles in 2011.

## Public modes of transport

Public transport's share of all trips has increased slightly from 9\% in 1995/97 to 11\% in 2011. Total trips by public transport modes increased by 3\% over the period.

Average number of trips by selected public transport modes - index:
Great Britain, 1995/97 to 2011
(NTS web table NTS0104)


The largest upward contribution to the increase in public transport's share of all trips comes from London buses and surface rail. The index chart above shows that the average number of London bus and surface rail trips has increased by $40 \%$ and $47 \%$ between 1995/97 and 2011 respectively. Across the same period, other local bus (buses outside of London) trips have decreased by 15\%.

[^0]Although, in terms of average distance travelled, other local bus travel in 2011 is at a similar level to 1995/97.

Related statistics
In addition to National Travel Survey statistics presented here, DfT publishes a range of statistics related to modes of transport. Detailed comparisons between the NTS and other sources are not always possible because of differences in collection, coverage and measurement. However, where the NTS and other DfT statistics refer to the same phenomenon, a degree of coherence between different sources can be observed over time, although year-on-year changes can vary. For example, the NTS results for London bus and surface rail trips show a fall between 2010 and 2011, which is different to that observed in other data sources. However, longer-term upward trends in London bus and surface rail usage are clearly shown in the NTS and other mode specific data sources.

- The volume of road traffic from DfT's Road Traffic Statistics can be compared with distance data from the NTS for selected modes of transport. These statistics are available at: https://www.gov.uk/government/organisations/department-for-transport/series/road-traffic-statistics
- Passenger journeys and passenger miles on local bus services from the DfT's Bus Statistics (Public Service Vehicle Survey and Transport for London (TfL) data), surface rail data from the Office of Rail Regulation (ORR) and London Underground data from TfL can all be compared with trip and distance data from the NTS. These statistics are available at:

DfT Bus Statistics: https://www.gov.uk/government/organisations/department-for-transport/series/bus-statistics
ORR: http://dataportal.orr.gov.uk/
TfL: http://www.tfl.gov.uk/corporate/about-tfl/publications/1482.aspx

Detailed statistics (tables and charts) on "how people travel" can be found on National Travel Survey 2011 web page at: https://www.gov.uk/government/publications/national-travel-survey2011, table numbers NTS0301 to NTS0317.

## 3. Why people travel

This section presents statistics on the reasons why residents of Great Britain travelled in 2011.

Purpose share: Great Britain, 2011
(NTS web tables NTS0401 and NTS0402)

Average number of trips


## Average distance travelled



On average, people in Great Britain made 192 shopping trips in 2011, which accounted for $20 \%$ of all trips. These trips tend to be shorter than average ( 4.4 miles in 2011) and therefore shopping only accounted for $12 \%$ of distance travelled.

Commuting (a trip from home to work, or from work to home) accounted for $15 \%$ of trips and business accounted for a further $3 \%$ in 2011. These trips tend to be longer than average, so accounted for a higher proportion of the average distance travelled, at $19 \%$ and $8 \%$ respectively.

Most of the decline in overall trips rates between 1995/97 and 2011 can be accounted for by a fall in shopping and visiting friends. On average people made $19 \%$ fewer shopping trips per year in 2011 than they did in 1995/97 (equivalent to 45 less trips per person per year). Trips to visit friends declined by $22 \%$ during this period, with the fall due to visiting at private homes rather than elsewhere. Trips for other leisure purposes (entertainment, sport, holiday, day trip and just walking), which currently make up $16 \%$ of all trips combined, saw the only increase between 1995/97 and 2011 (+10\%).

The trend of falling numbers of shopping trips over time is associated with a switch from more frequent, short shopping trips on foot, to longer, less frequent car trips. The average length of a shopping trip increased from 3.9 miles to 4.4 miles between $1995 / 97$ and 2011 , while the average trip duration remained steady at around 18 minutes. Over recent years there has been an increase in ordering goods online to be delivered.

Between 1995/97 and 2011 the number of commuting trips decreased by 16\%, from 174 to 147 trips per person per year. The average distance travelled for commuting fell by a lesser amount between 1995/97 and 2011, by $8 \%$ (from 1,425 to 1,308 miles per person per year), with the average length of a commuting trip increasing by $9 \%$ (from 8.2 to 8.9 miles).

Business trips have fallen since 2005, while the distance travelled fluctuates year to year. The average number of business trips and distance travelled are both around a quarter lower in 2011 than in 1995/97.

Trips by main mode and purpose: Great Britain, 2011
(NTS web table NTS0409)


In 2011, 69\% of commuting/business trips were made by car (driver or passenger). The 7\% of commuting/business trips made by rail represents the majority share of all rail trips at 53\%. Nearly four in ten (39\%) education trips were made by walking, however the car was the most frequently used mode ( $43 \%$ of trips). Walking accounted for $23 \%$ of shopping trips, $23 \%$ of personal business trips, and $16 \%$ of leisure trips.

In 2011, the main reason for a trip by local bus was for shopping (27\%).

Detailed statistics (tables and charts) on "why people travel" can be found on National Travel Survey 2011 web page at: https://www.gov.uk/government/publications/national-travel-survey2011, table numbers NTS0401 to NTS0410.

## 4. Travel by age, gender and income

This section highlights the differences in travel patterns by mode and purpose according to age, gender and income. Additionally, it contains information on driving licence holding, school travel and concessionary travel.

## Driving licence holding by age and gender

The NTS estimates that 35 million residents in Great Britain held a full car driving licence in 2011. Of these, 19 million were men and 16 million were women.

Full car driving licence holders by age and gender: Great Britain, 1975/76 to 2011 (NTS web table NTS0201)


As the chart above shows, over the long term there has been an increase in the proportion of both males and females holding a full driving licence for most age groups. Overall in 1975/76, 69\% of males and $29 \%$ of females had a licence.

In 2011, $79 \%$ of males and $65 \%$ of females had a licence. While the proportion of males holding a full driving licence remained fairly stable since the early 1990s, the proportion of females with a licence continued to increase.

The proportion of young adults (aged 17-20) with a full driving licence has decreased since the early 1990s where driving licence ownership was at its highest, although the level does fluctuate
year-on-year. In 1995/97, 43\% of those aged 17-20 held a full licence, compared with a low of 27\% in 2004 and 31\% in 2011. The proportion in 2011 was the same for both males and females.

There has been a large increase in the number of older people holding a full driving licence. Between 1995/97 and 2011 the proportion of people aged 70+ holding a licence increased from $38 \%$ to $59 \%$. Over the same period, the proportion of people aged $60-69$ holding licences has increased from $63 \%$ to $79 \%$. The increase among older women is particularly notable: $69 \%$ of women aged $60-69$ and $44 \%$ aged $70+$ held a licence in 2011 compared with $45 \%$ and $21 \%$ in 1995/97 respectively. This is due to aging of existing licence holders rather than large numbers of newly qualified drivers in older age groups.

## Mode by age and gender

Children (aged 16 and under) made 54\% of their trips as car passengers, with most of the rest on foot. There was little difference in the proportion of usage of different modes by boys and girls.

The amount of trips broadly increases with age up to 40-49 and then decreases among older age groups.

Average number of trips (trip rates) by age and main mode: Great Britain, 2011 (NTS web table NTS0601)


In 2011, females made 5\% more trips than males (981 per year compared to 935), this difference is highest in the 30-39 age group where females make $22 \%$ more trips than males. However, males travelled $24 \%$ further than females, averaging 7,573 miles a year compared with 6,105 miles respectively.

Since 1995/97 the average number of car driver trips by men has fallen by $18 \%$ and average distance travelled fell by 16\%. This compares to an 11\% increase in car driver trips and a $23 \%$ increase in distance travelled by women. However, men still drive nearly twice as many miles per year than women (4,480 miles compared to 2,433 ).

Average trips and distance for car drivers by gender - index: Great Britain, 1995/97 to 2011 (NTS web tables NTS0602, NTS0603, NTS0606 and NTS0607)


Travelling by car forms a large proportion all individuals' personal travel, in 2011 it ranges from $47 \%$ for those aged $17-20$ years to $72 \%$ for 50-59 year olds, and these account for $61 \%$ and $85 \%$ of the distance travelled respectively. Males make more car driver trips overall than females (435 per year compared to 361); however this is not the case in all age groups. Females aged between 17 and 49, made more car driver trips than males, while males aged 50 and over made significantly more car driver trips than females. Differences in car usage are closely related to differences in licence holding.

Cycling is most prevalent among men than women (23 trips person per year compared to 8 trips). However, cycling only makes up $2 \%$ and $1 \%$ respectively of their total trips. Women make more bus trips on average then men ( 74 trips per person per year compared to 54 trips).

The proportion of trips made by bus was highest among those aged 17-20, accounting for $15 \%$ of all trips in this age group. Bus use was higher for those aged 60+ than in middle age groups, particularly among females, reflecting the availability of concessionary travel for older passengers and differences in driving licence holding across age groups. Women of all ages used buses more than rail, but men aged 30-39 used rail more than buses, reflecting the more widespread use of rail among commuters.

## Purpose by age and gender

Of all trips made by males, an average of 169 trips per year were for commuting with an additional 35 for business purposes, compared with 125 and 23 respectively for females. The highest proportion of commuting trips were amongst men aged 21-29 (33\%) and 50-59 for women (23\%).

The average distance travelled for the purpose of commuting by males is just over twice that of females ( 1,788 and 846 miles respectively in 2011). Commuting accounts for $24 \%$ of distance travelled by males and is the most prevalent purpose, compared to $14 \%$ of distance travelled by females. The greatest distance travelled by females is for the purposes of visiting friends at home (17\%), followed by shopping and holiday/day trips both at $16 \%$. These differences in trip purposes are the main drivers to the differences in total distance travelled by gender.

On average females made 23\% more shopping trips each year than males (211 trips compared to 171). Females also made more escort education trips per year than males (64 compared to 27) and slightly more visiting friends at home trips (113 compared to 94).

Education was the most frequent trip purpose for children (aged 16 and under). Commuting accounted for the highest proportion of trips for those aged 21-49, and shopping for those aged 50+.

## School travel

In 2011, 49\% of trips to and from school by primary school children (aged 5-10) were made on foot. This was slightly lower than in 1995/97 when $53 \%$ of trips were made on foot. The proportion of trips by car for these children increased from 38\% to 43\% during the same period. Among secondary school children (aged 11-16) in 2011, $38 \%$ of school trips were on foot and $22 \%$ were by car, compared with $42 \%$ and $20 \%$ respectively in 1995/97. For secondary school children, the proportion of trips by bus (including school bus/coaches) was 33\% in 2011 and 3\% were by bicycle.

For trips to school under 1 mile in length, walking was the most prevalent mode of travel for both primary and secondary school children, accounting for $84 \%$ and $89 \%$ of trips respectively. For longer school trips, the most popular mode for primary school children is by car, with $76 \%$ of 2 to 5 mile trips, and $80 \%$ of trips over 5 miles made by this mode. For secondary school pupils $53 \%$ of all trips of 2 to 5 miles in length, and $66 \%$ of trips over 5 miles are made by bus (see chart below).

Trips to school by main mode, length and age: Great Britain, 2011
(NTS web table NTS0614)


The average length of a trip to school increased from 2.1 miles in 1995/97 to 2.5 miles in 2011. During this period, the average trip length for primary school children increased from 1.3 to 1.7 miles, and for secondary school pupils from 2.9 to 3.3 miles.

Concessionary travel by older people
The Transport Act 2000 required all local authorities in England to provide a minimum standard of a half fare for women aged 60+, men aged 65+ and disabled persons. From 1 April 2003, the eligible age for these schemes was equalised to 60+ for men and women. From 1 April 2006, free local concessionary bus travel was introduced in England for disabled passengers and those aged 60+ within their local area and from April 2008 this was extended to cover bus travel throughout England. From April 2010 the eligibility in England for men and women is equivalent to the pensionable age for women, therefore gradually increasing. In Scotland and Wales the eligibility remained at aged 60 for men and women.

The proportion of eligible older people with a concessionary travel pass in Great Britain increased following the introduction of the minimum standard of a half fare. From 1998/00 to 2002 take-up rates among men 65+ and women 60+ increased from 49\% to 58\%. There was a further increase in takeup rate in 2006, to $63 \%$, associated with the introduction of free local concessionary bus travel in England and this has continued to increase year-on-year to $79 \%$ in 2011 ( $82 \%$ of females and $76 \%$ of males).

There is considerable variation between area types with take-up ranging from 66\% in rural areas to $86 \%$ in London and Metropolitan areas in 2011. However, this gap has narrowed over time because take-up has increased more among rural residents than in other areas.

This increasing trend of take-up of concessionary travel is consistent with DfT's recently published report 'Concessionary Travel: 2011/12 and 2012/13'. This report also contains information on passes issued by each Travel Concession Authority, expenditure and reimbursement, and can be found online at: https://www.gov.uk/government/publications/concessionary-travel-statistics-england-2011-12-and-2012-13

Travel by income group

Average distance travelled by mode and household income: Great Britain, 2011 (NTS web table NTS0705)


Car travel accounts for the greatest proportion of trips and distance travelled in every income quintile group. Households with the lowest income have the smallest proportions, $48 \%$ of trips and $69 \%$ of distance, whilst the second highest quintile has the largest proportions, $71 \%$ of trips and $83 \%$ of distance. Households in the highest income quintile travel just over 3 times further by car than the lowest income quintile.

Use of public transport is also related to income. From the lowest to highest income quintile, the average number of trips by bus decreases (100 bus trips per person per year in the lowest income quintile compared with 32 bus trips in the highest). However, rail use is highest in the top income quintile with just over 3 times more rail trips and 3 and half more rail miles than the lowest quintile.

This is partly because commuters to London in the highest income band account for a considerable proportion of rail travel.

Detailed statistics (tables and charts) on "travel by age and gender" can be found on National Travel Survey 2011 web page at: https://www.gov.uk/government/publications/national-travel-survey-2011, table numbers NTS0601 to NTS0620.

## 5. Background notes

1. The National Travel Survey 2011 web page provides a set of results tables containing the key findings presented in this Statistical Release. This release is shorter and later than in previous years due to the transition of NTS data processing and analysis into a new database. There are 45 tables containing 2011 results, the other tables contain data up to 2010 only. The 2012 NTS results will be published in July 2013 (returning to the established publication schedule) and will contain an update of all 100+ tables with both 2011 and 2012 data. Due to ongoing database management tasks ad hoc analysis of some NTS variables will be limited until July 2013.
2. Since 2002, the Department for Transport has commissioned the National Centre for Social Research (NatCen) as the contractor for the NTS. Full guidance on the methods used to conduct the survey, response rates, weighting methodology and survey materials can be found in the National Travel Survey 2011 Technical Report at:
https://www.gov.uk/government/publications/national-travel-survey-2011
During 2012, NatCen were confirmed as the contractor to conduct the NTS from 2013 to 2017.
3. Details of ministers and officials who receive pre-release access to these statistics up to 24 hours before release can be found in the Pre-release access list at:
https://www.gov.uk/government/publications/national-travel-survey-2011
4. A Notes \& Definitions document which includes background to the NTS, response rates, sample size \& standard error information and a full list of definitions can be found at:
https://www.gov.uk/government/publications/national-travel-survey-2011
5. Sample sizes are included in all the individual web tables. As estimates made from a sample survey depend upon the particular sample chosen, they generally differ from the true values for the population. This is not usually a problem when considering large samples but may give misleading information when considering data from small samples, such as cyclists in a particular age group.

Tables of standard errors for selected key statistics derived from the 2009 NTS are published at: http://assets.dft.gov.uk/statistics/series/national-travel-survey/stderror2009.xIs

A note explaining the methodology used to calculate the 2009 NTS standard errors is published at:
http://assets.dft.gov.uk/statistics/series/national-travel-survey/stderror2009.pdf
6. The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods, and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

## Key Definitions

(A full list of definitions can be found in Appendix A of the Notes \& Definitions)
Travel: only includes personal travel by residents of Great Britain along the public highway, by rail or by air within Great Britain.

Trips: The basic unit of travel, a trip, is defined as a one-way course of travel with a single main purpose.
Stages: A trip 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.

Mode/main mode: Trips may include more than one mode of transport, and each mode is recorded as a stage within that trip. When 'main mode' is used in the title of a table or chart this allocates information for the whole trip to the stage used for the greatest length (in distance) of the trip. When 'mode' is used this refers to information for individual stages of trips.

Car and car/van: both include 4-wheeled and 3 -wheeled cars, $4 \times 4$ vehicles, light vans and lorries.
Rail: includes surface rail (National Rail) and London Underground, unless otherwise specified and excludes light rail and other rail systems (e.g. Tyne and Wear Metro), which are included under 'other public transport'.

Walks: Walks of less than 50 yards are excluded.
Adults: Normally persons aged 16+. For some tables (e.g. car driving licence holding and car ownership), analyses are restricted to those aged 17+.


[^0]:    ${ }^{1}$ A trip 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. For cycling (and walking), the number of stages is a better measure than the number of trips because this mode is often not the main mode when there is a multi-stage trip. Therefore, the number of cycling (or walking) trips would be lower than the corresponding number of stages.

