



Department for Transport

# National Travel Survey: England 2017

## About this release

The National Travel Survey is a household survey of personal travel by residents of England travelling within Great Britain, from data collected via interviews and a one week travel diary.

The NTS is part of a continuous survey that began in 1988, following ad-hoc surveys from the 1960s, which enables analysis of patterns and trends.

Some key uses of the data include describing patterns, for example how different groups of people travel, monitoring trends in travel, including sustainable modes; assessing the potential equality impacts of transport policies on different groups; and contributing to evaluation of the impact of policies.

**Next Published: July 2019**

**Following a trend of steady decreases in trip rates and miles travelled since the late-1990s, there was an increase in the average number of trips and the average miles travelled per person in the two years from 2015 to 2017.**

People made 975 trips on average in 2017, around 19 trips per week. This was a 2% increase on the level in 2016. While trip rates for most modes of transport remained similar between 2016 and 2017, there was an increase in the number of short walks recorded.

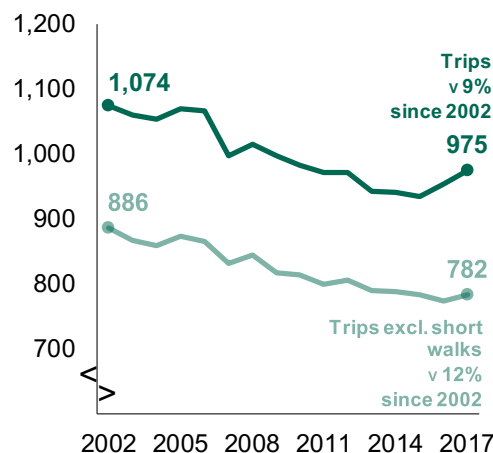
However, the trip rate in 2017 was 11% lower than the highest recorded in both 1978/79 and 1996/98 of 1,097; the average of 6,580 miles travelled in 2017 was 9% lower than the high of 7,211 recorded in 2003.

On average, people spent about an hour a day travelling in 2017, including 36 minutes by car on average, and 12 minutes walking.

### Recent trends in trips and miles travelled: England 2002-2017

#### Trips

Average trips per person per year



#### Distance

Average miles travelled per person per year



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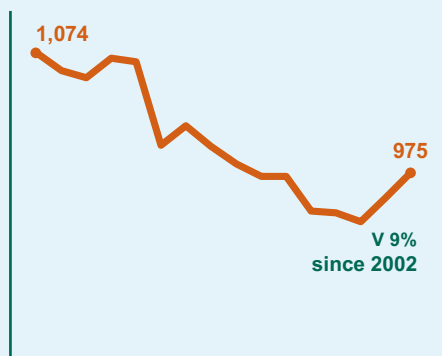
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## Trips [NTS0101]

Average trips per person per year



2002

2017

## Distance [NTS0101]

Average distance travelled per year



2002

2017

## Time [NTS0101]

Average time travelled per year



2002

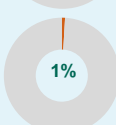
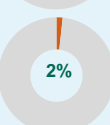
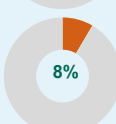
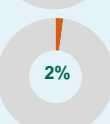
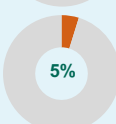
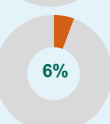
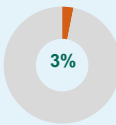
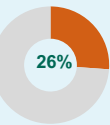
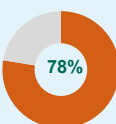
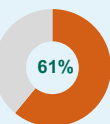
2017

## How we travelled [NTS0303]

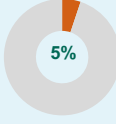
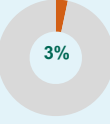
Modal share

Trips

Distance



Other



## Why we travelled [NTS0409]

The most common trip purposes were:



Leisure **26%**



Shopping **19%**

## Gender [NTS0601, 0605]



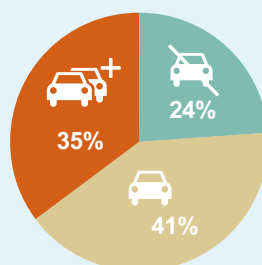
Trips per year

**948** **1,000**

Distance (miles)

**7,064** **6,110**

## Car ownership [NTS0205]



**76%**

of households owned at least one car

## Licence holding [NTS0201]



**74%** of residents (17+) held a driving licence

**32.9 million** licence holders



**80%** of males



**69%** of females

## Cycling [NTS0608, NTS0303, NTS0305]

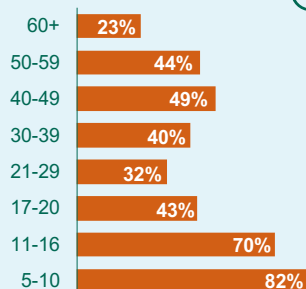
Average cycling trips and distance per year



2002

2017

People with access to a bicycle, by age (2015-2017)



## For further information:



Search 'National Travel Survey' on GOV.UK



[national.travelsurvey@dft.gov.uk](mailto:national.travelsurvey@dft.gov.uk)



020 7344 3097

# Introduction to the 2017 publication

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The 2017 National Travel Survey (NTS) is the latest in a series of household surveys designed to provide a consistent source of data on personal travel behaviour across England.

This annual statistical release has a number of new chapters to help users understand the data and the overall management and administration of the NTS.

The additional information includes:

- Further detail on the revision to short walks data in the NTS (as described in previous documents), and the reasons why the revisions were delayed until July 2018.
- More information on user engagement undertaken by the NTS team, including the results of a feedback exercise on removing, changing or alternating some questions for the 2019 survey.
- More information on uses of the NTS.
- Details of planned improvements to the NTS

We always welcome feedback to help ensure that the survey meets the needs of users, and any feedback provided will help inform the future design and development of the survey.

## Thank you

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The 2017 survey fieldwork, data input, coding and some analysis was carried out by the National Centre for Social Research. Special thanks are due to the project team, the coders and to all the interviewers at NatCen.

The help of the members of the public who gave their time to respond is gratefully acknowledged.

### What travel is included in the NTS?

The NTS only includes personal travel within Great Britain, by residents of private households in England, along the public highway, by rail or by air. Travel off-road, or for commercial purposes (to deliver goods or to convey a vehicle or passengers) is not included.

### What is a trip?

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

### What is a stage?

Trips consist of one or more stages. A new stage is defined when there is a change in the mode of transport.

## Presentation of results

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For this statistical release, we have acted on user feedback and undertaken the following:

- We have produced a complete suite of tables, and merged some together to reduce the number of spreadsheets that users have to navigate on the website. An example of this is table NTS0303 that now additionally includes data for table NTS0304, NTS0305, NTS0306 and NTS0307 along with a drop down option to allow users to select metrics they are interested in.
- We have updated the back series of tables to incorporate the revised short walks data. **For more information on the revisions to the data, please see page 35 of this document.**
- We have reorganised the layout of the tables on GOV.UK so they are in a more intuitive order (for example, all of the tables on different modes of transport are now grouped together). This will hopefully help users find the tables they need more easily. We have not changed the table identifiers though.
- For tables that are disaggregated by mode of transport, we have used the same categories for each table as much as possible to provide consistency for users. While this means that there will be more missing values, users will be able to compare specific modes of transport more easily between tables.
- Similarly, for tables showing different trip purposes, we have used the same categories for each table as much as possible to provide consistency for users.
- Users should note that we often make comparisons with data from 2002. This is the first year that we have a complete set of data in a format that allows detailed analysis of the NTS.

## Accessing micro-level NTS data for analysis

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In addition to the published statistics described in this document together with accompanying statistical tables, the underlying dataset and guidance in analysing it can be accessed from the [UK Data Service](#) or the Office for National Statistics Secure Research Service for users who wish to explore the data for themselves.

# Uses of the NTS

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The NTS is one of DfT's main sources of data on personal travel patterns. Data from the NTS is used extensively by DfT to monitor changes in travel behaviours and to inform the development of policy. The findings and data are also used by a variety of other organisations including: other government departments, university academics and students; transport consultants; local authorities and voluntary sector organisations representing a wide range of interests including motorists, cyclists, public transport passengers, the elderly, rural communities and children.

NTS data has or will be used:

- To help forecast future trends in road traffic as part of the National Transport Model.
- To monitor the number of cycle stages per person per year for an indicator in the Department's Single Departmental Plan.
- As an input into the Cycling and Walking Investment Strategy.
- To answer Parliamentary Questions and other Ministerial Correspondence.
- As a possible supplement to rail demand forecasting models in DfT.
- In the development of the National Cycling Propensity Tool for DfT.
- For monitoring road accident rates among different road users, especially pedestrians.
- To assess the take-up of concessionary passes and the impact on bus use and help develop concessionary travel reimbursement guidance for DfT.
- To understand how people travel to the shops and the impact of home deliveries.
- To understand how travel patterns vary according to area type, e.g. in urban or rural areas.
- To examine travel among different groups, such as elderly people and people with mobility difficulties.
- To get information about users of different modes of transport.
- To produce free annual reports that allow analysis of changes in personal travel over time.
- To study how children travel to school and how this has changed over time.
- By academics and consultants to produce research reports by accessing data via the UK Data Archive and the ONS Secure Research Service.
- To provide analysis and advice for 350 requests to NTS team each year.

## Future plans

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The NTS team, along with NatCen and others are currently embarking on an ambitious programme of work to develop the NTS over the next few years in order to maintain the reputation of the survey as a world-leading diary-based travel survey. Some of these developments include:

### Digital diaries

- Previous reports published by DfT have shown that it is possible to use a digital solution to capture travel data. In summer 2018 we are starting a project to develop a digital solution for the NTS. As we will need to complete the development and carry out full-scale testing, it is likely to be at least 2 to 3 years before it is rolled out fully as the method of data capture for the NTS. Depending on the solution, the benefits could be numerous including less respondent burden, better quality data (more accurate distance measurements, for example), and data captured on trips not currently collected by the survey (for example, those off the public highway). However, we will need to work carefully through the technical and data security issues, and also be mindful of our users desire for a long-term consistent time series.

### NTS panel

- We will be developing a panel from NTS respondents in 2018 in order to carry out short, timely surveys to get evidence more quickly than would be possible by putting questions on the main NTS. We are currently developing how the panel would be run in conjunction with NatCen, but to start with we will move questions from the British Social Attitudes Survey to a panel survey in summer 2018, with results published in 2019.

### Incentive and advance letter experiments

- Through 2018 we are running two experiments in the field. One is an experiment to test a new version of the advance letter that is sent to respondents, and the second is to test two new levels of unconditional incentive. The purpose of these experiments is to try and improve response rates that have been decreasing on the NTS over the last two years. The experiments will report at the end of 2018 and will inform the incentive and advance letter strategy for 2019.

### Interactive online analysis tool

- We are developing an online analysis tool for our users that could allow them to do some bespoke analysis of NTS data and hopefully bridge the gap between the standard tables that

we publish online, and the microdata that is published on the UK Data Service and the ONS Secure Research Service.

## **Development of the survey**

- Through user feedback, either on a bespoke basis, or through more formal consultations, we are continuing to review and develop the content of the survey to ensure it remains fit for purpose and the questions asked of respondents are relevant.

## **Standard errors project and new quality indicators**

- We have commissioned a project to produce new standard errors for the NTS. Related to this, we will develop a new report that brings together a set of quality indicators in one place, drawing on the work to update the standard errors, and information in NatCen's technical report. We will aim to publish this in Winter 2018.

## **Publish ad hoc queries**

- At the end of 2018, we will develop a process to publish the ad hoc queries that we produce for external customers in order to increase the information available to other users.

## **User engagement**

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The National Travel Survey team carries out user engagement throughout the year with a variety of internal and external users and we will continue to do so, including on some of the future plans mentioned above. Our methods of engagement include, but are not limited to:

- Regular discussions with internal policy colleagues to discuss the addition of new questions, or changes to existing questions.
- Regular discussions with colleagues in external organisations on changes to existing questions or new questions via email, or through forums like the Transport Statistics User Group.
- Through more formal consultations or requests for feedback. In recent years, these have included a user feedback exercise on removing questions from the NTS (a report on the results of this feedback has been published alongside this statistical bulletin) and a consultation on the collection of short walk data in the NTS.
- Through engagement by NatCen via their social media and other channels.
- By reviewing ad hoc requests from internal and external customers.



# Long-term trends in the National Travel Survey

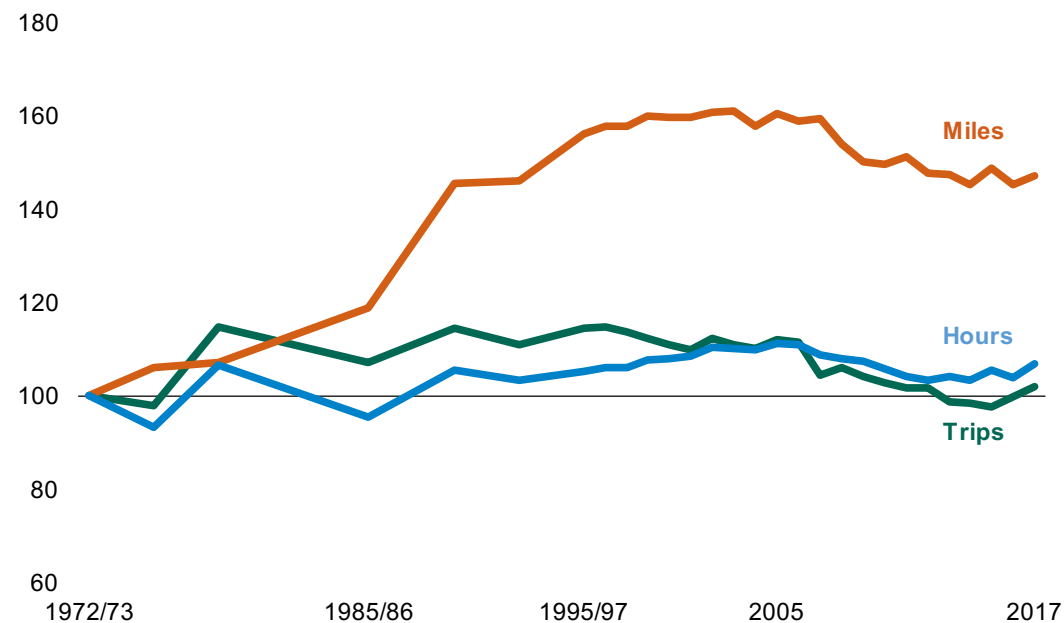
Over the last 45 years, the average distances people have travelled have increased, but the number of trips and time spent travelling have stayed broadly the same.

The average number of trips per person and total hours spent travelling have remained broadly stable since the 1970s. For example the number of trips have increased by 2% over that time period with a high of 1,097 trips per person per year in both 1978/79 and 1996/98. The average number of hours spent travelling has increased by 7% (Chart 1). People spent 377 hours travelling per person in 2017, or about an hour a day on average.

What has changed over this period is the average miles travelled, which have grown by 47% over this time period, largely as the result of increased average trip lengths due to changes in how we travel, in particular increasing car availability, driving licence holding and use of cars.

**Chart 1: Trends in trips, miles travelled and hours spent travelling: England 1972/73-2017 [NTS0101]**

Index 1972/73 = 100



**1972/73 (GB)**

**4,476 miles**

**353 hours**

**956 trips**

travelled per person  
per year on average

**2017 (England)**

**6,580 miles (+47%)**

**377 hours (+7%)**

**975 trips (+2%)**

## Further information

The statistical datasets published alongside this release provide a series of tables containing further data. [NTS01](#) presents trends in travel over time, and [NTS02](#) covers driving licence holding and vehicle availability. Section [NTS09](#) provides further data relating to household vehicles mileage

In addition, the NTS dataset contains a wide range of further details which facilitate more in-depth study.

## Household car access

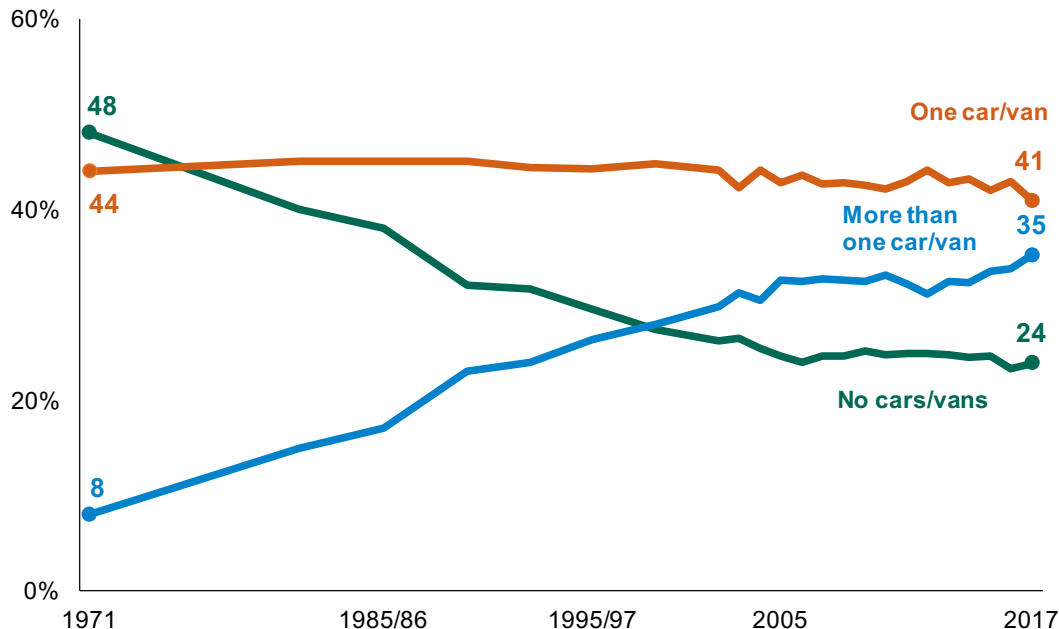
There have been significant long-term increases in the proportion of households with access to a car or van.

Car availability greatly influences personal travel patterns: people in households with cars, on average, make more trips, spend more time travelling and travel much further than those without cars.

The proportion of households without a car has fallen from 48% in 1971 (based on the Census) to 24% in 2017 while the proportion of households with more than one car increased over this period, from 8% to 35% (Chart 2).

Furthermore, the vehicle licensing statistics show that car ownership has been increasing. Part of the reason for this growth is an increasing employment rate and the ability to cover the costs of motoring. A further reason is the increased number of women and older people with a driving licence.

**Chart 2: % of households with access to a car: England 1971-2017**  
[NTS0205]



Over the long term, the cost of purchasing a motor vehicle has decreased, contributing to increases in car ownership. Estimates from the Consumer Prices Index show that between 1997 and 2017, the cost of motor vehicle purchase decreased by 13% in the UK.

### Cars and vans

The results presented here include household access to a van. The text refers to “car” only in some places simply for the purpose of readability.

### Related data sources

Household car availability is also collected by the Census.

<http://www.ons.gov.uk/ons/rel/census/2011-census/index.html>

The Department for Transport also publishes Vehicle Licensing Statistics:

<https://www.gov.uk/government/collections/vehicles-statistics>

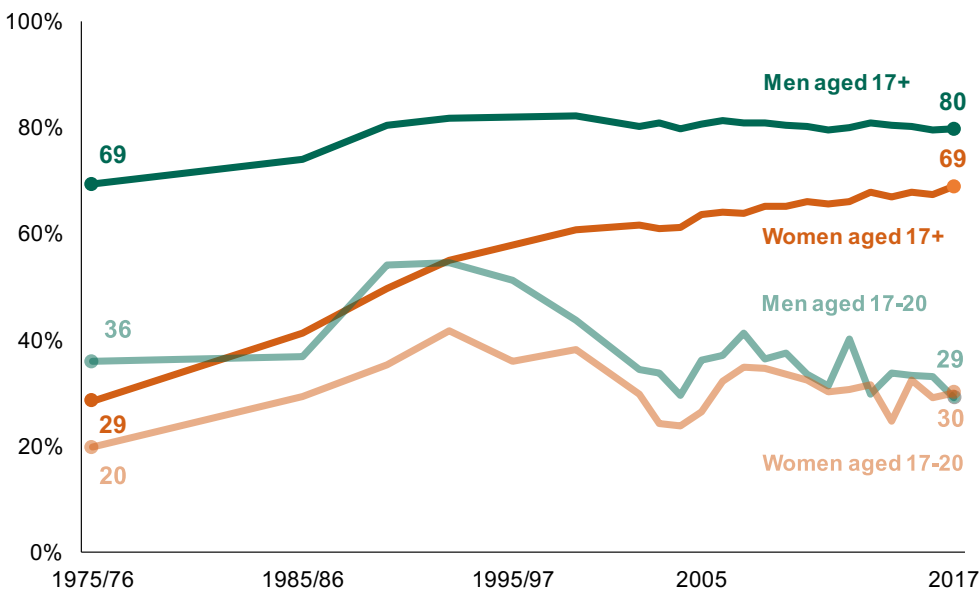
These statistics show the number of licensed road vehicles and new vehicle registrations derived from data held by the Driver and Vehicle Licensing Agency (DVLA).

# Driving licence owners

Over the last 40 years, the proportion of people owning a driving licence has increased, with the increases being greater for women than men.

Over the time period since 1975/76, there have been significant increases in the proportion of people with a driving licence (Chart 3). For women, there was an increase from 29% to 69% over this period. This represented an increase of 9.6 million women with a driving licence. There have also been significant increases in the proportion of older people with driving licences. Between 1975/76 and 2017, the proportion for people aged 70 and over rose from 15% to 64%.

The proportion of young adults (aged 17-20) with a licence has declined since a high in the mid-1990s. In recent years, the main reason for not learning to drive for people aged 17-20 has been the cost of learning. 26% of 17-20 year olds cited this as the main reason in 2017 (Table NTS0203). Around 8% of 17-20 year olds said they would “never” be interested in learning to drive.



**Chart 3: % of people owning a full driving licence: England 1975/76-2017 [NTS0201]**

Research published by DfT on young people’s travel looked to explain the reasons for a decline in the proportion of young people with a driving licence. Evidence suggests that a rise in motoring costs have discouraged young people from learning; the driving test has become more difficult; and there is some evidence of changes in the values and attitudes of young people - surveys and interviews have shown that many young people now accept not driving.

## Related data sources

DfT publishes statistics about [driving tests and instructors](#).

DVLA publishes a breakdown of licence holders by age and gender at <http://data.gov.uk/dataset/driving-licence-data>

## Further reading

A detailed research report on changes to young people’s travel behaviours, published by DfT is available at: <https://www.gov.uk/government/publications/young-peoples-travel-whats-changed-and-why>

# Recent trends in trips, miles and hours

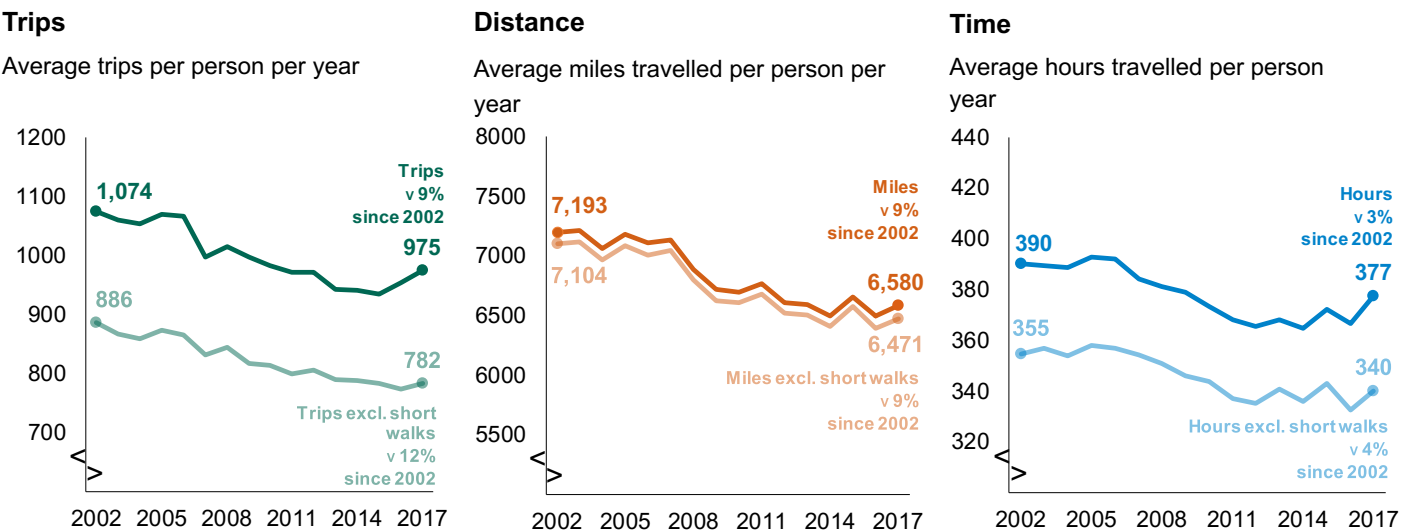
Following a trend of steady decreases in trip rates and miles travelled since the late-1990s, there was an increase in the average number of trips and the average miles travelled per person in the two years from 2015 to 2017.

People made 975 trips on average in 2017, around 19 trips per week. This was a 2% increase on the level in 2016. While trip rates for most modes of transport remained similar between 2016 and 2017, there was an increase in the number of short walks recorded.

However, the trip rate in 2017 was 11% lower than the highest recorded in both 1978/79 and 1996/98 of 1,097; the average of 6,580 miles travelled in 2017 was 9% lower than the high of 7,211 recorded in 2003.

**Chart 4: Trends in trips, miles travelled and hours spent travelling: England 2002-2017**

[\[NTS0101\]](#)



On average, people spent about an hour a day travelling in 2017, including 36 minutes by car on average, and 12 minutes walking.

Understanding reasons for these trends is difficult. The averages presented here mask different trends for different types of people, modes and types of trip. Some of the many factors might include changing demographic patterns, for example an ageing population; changing patterns of trips, for example replacing several shopping trips with one visit to a supermarket; the impact of new technologies influencing the demand for travel, for example the increase in online social networking, the capability for home working and online shopping (the subject of an NTS factsheet - see box opposite).

## Further reading

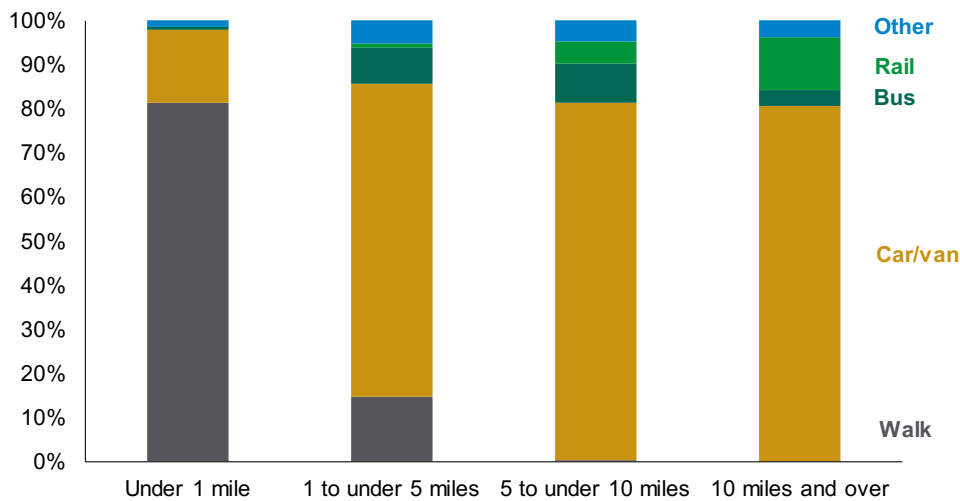
A factsheet on shopping trends, published by DfT is available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/604103/why-people-travel-shopping-2015.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/604103/why-people-travel-shopping-2015.pdf)

# Journey lengths

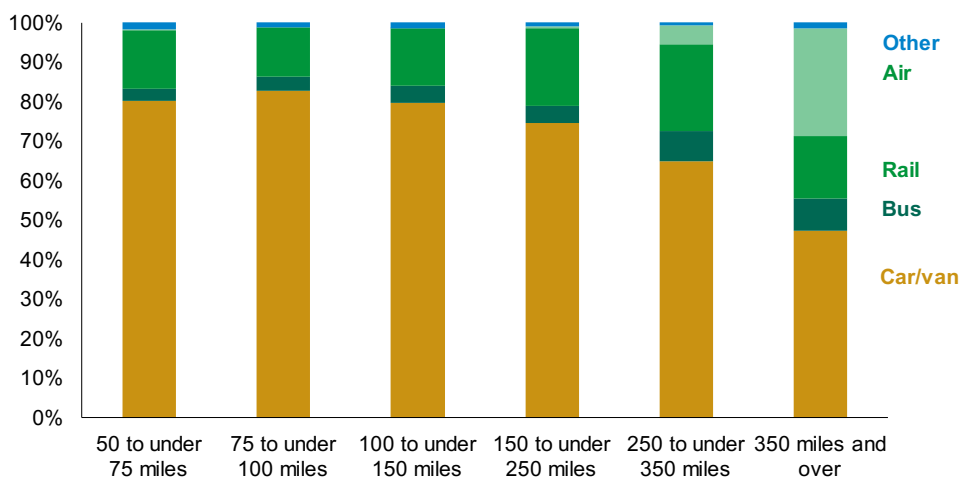
**Most trips are relatively short. In 2017, 24% of trips were under 1 mile, and 68% under 5 miles.**

Walking was the most frequent mode used for short trips: 81% of trips under one mile were walks. For all other distance bands, the car was the most frequent mode of travel (Chart 5). Nearly all walks recorded in the NTS are under 5 miles, compared with 56% of car driver trips and 8% of trips by surface rail. Including the London Underground, 63% of rail trips were 10 miles and over.

**Chart 5: Mode share of trips by main mode for different trip lengths: England, 2017 [NTS0308]**



For longer trips from 50 to 150 miles, around 80% were by car for the average of the years from 2013 to 2017, and for trips between 150 and 250 miles, 75% were made by car (Chart 6). A similar proportion of trips were done using rail for each of the distances shown. Only when the trip distance was 350 miles and over do trips using domestic flights become significant - 27% of these trips were flown in 2013/2017.



**Chart 6: Mode share of trips by main mode for long distance trips: England, average of 2013 to 2017 [NTS0317]**

# Trends in driver and passenger trips and miles

The majority of personal trips made and miles travelled are by car (see box opposite). In 2017, 61% of trips and 78% of miles per person were by car, either as a driver or passenger.

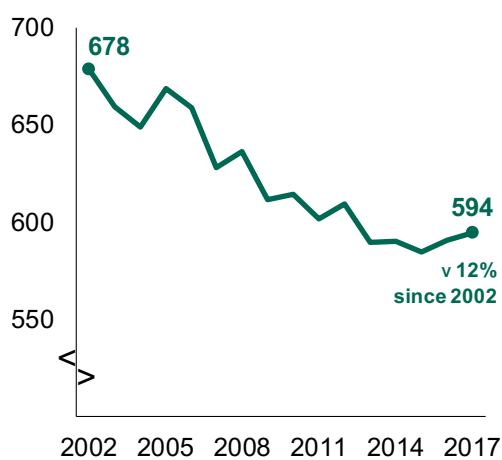
Since 2002, most of the fall in total trips has been due to fewer car trips (12% less in 2017 than 2002). Over this period, the average miles travelled by car has also fallen (also by 12%); this is explained largely by the fall in trips, with average trip length by car remaining fairly stable over that period.

However, in the years since 2013, car trips made and car miles travelled per person per year have been broadly similar, following a downward trend in the years prior to 2013. (Chart 7).

**Chart 7: Trends in car/van trips and car/van miles travelled (as driver or passenger): England 2002-2017 [NTS0303]**

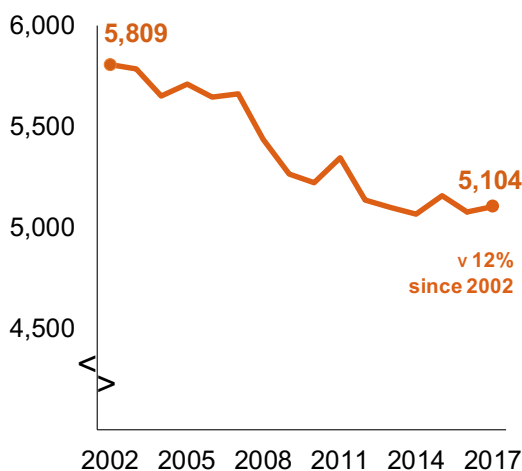
## Trips

Average car/van trips per person per year



## Distance

Average car/van miles travelled per person per year



The NTS asks households about their average yearly mileage for each car they own (note this section refers to 4-wheeled cars only and excludes vans). There has been a decrease in household mileage of 15% between 2002 and 2017, from 9,200 miles to 7,800 miles per car per household, a similar trend to that seen for personal mileage above (Chart 8). Of the decrease of 1,400 miles over that time period, around 800 miles were due to a decrease in business mileage. This decrease is similar to that seen for the average miles per person per year for personal business mileage.

## Cars and vans

The results presented here and in other sections also include trips made and miles driven by vans, unless stated. The text generally refers to “car” only simply for the purpose of readability.

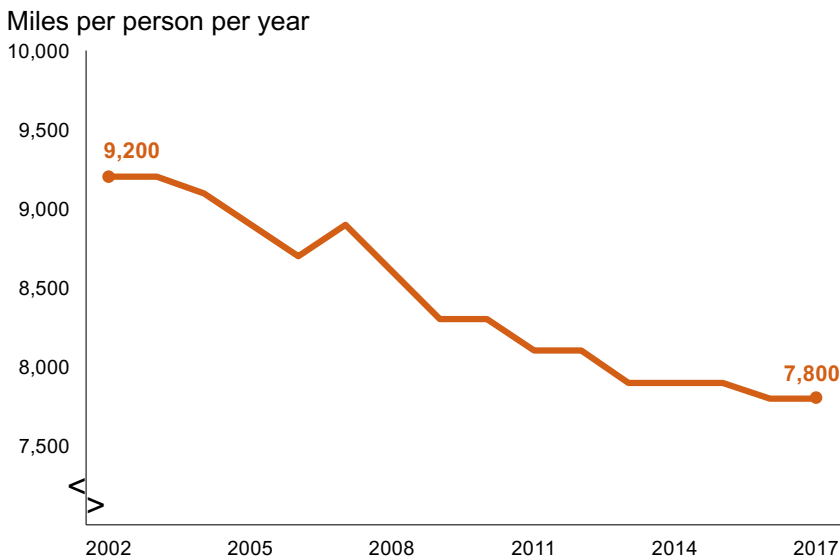
## Further reading

Aggregate trends in road traffic are published in the Department’s traffic statistics available at: <https://www.gov.uk/government/collections/road-traffic-statistics>

[Experimental statistics](#) derived from vehicle odometer readers taken at annual MOT tests are also published by DfT.

[Road Use Statistics](#) is a publication which draws together key results from DfT statistics.

DfT also publishes [road traffic forecasts](#).

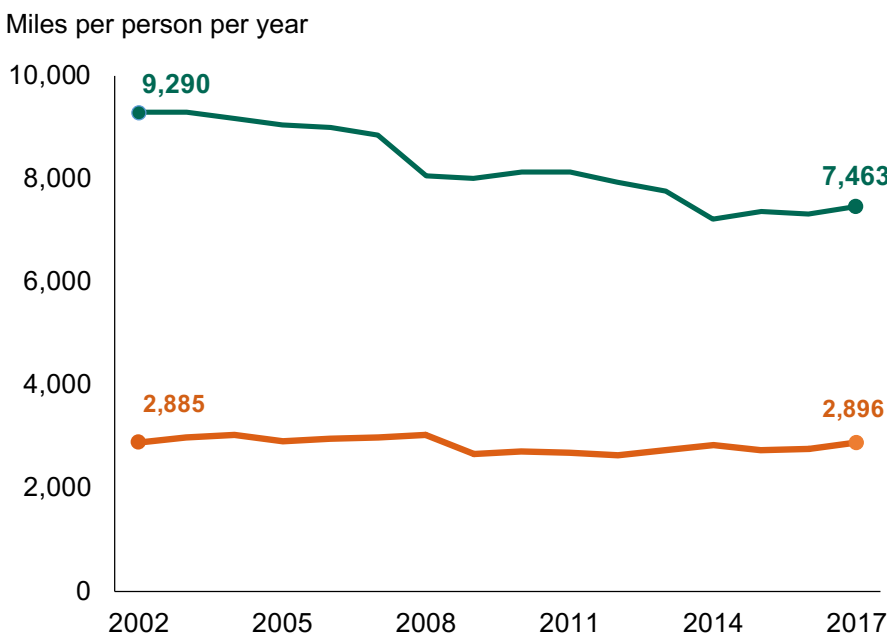


**Chart 8: Annual mileage of household cars: England, 2002-2017 [NTS0901]**

**Further reading**

A more detailed analysis of trends in car trips and mileage, which uses NTS data, can be found in the DfT publication [‘Understanding drivers of road travel’](#).

Understanding the reasons for the reduction in car use is not straightforward as there are many potential factors, not all of which are well evidenced. Changing demographic factors due to changing needs at different life stages and cohort effects explain some of the changes in the decrease in recent years in average car trips made and miles driven. As noted previously, the demography of the driving population has changed over time. In particular, females and older age groups are much more likely to hold a licence now than thirty years ago.



**Chart 9: Average car/ van driver or passenger miles per person per year, for highest and lowest income quintiles: England, 2002-2017 [NTS0705]**

There are also different trends in car use between people in households with different incomes. Since 2002, people in households in the highest income quintile have driven more miles on average per year than people in the lowest quintile, but this gap has narrowed. In 2002, the gap was 3 times more; in 2017 it was around 2.5 times more due to people in the highest income quintile driving 20% less miles (Chart 9). Over the same time period, people in the lowest income quintile were the only income quintile to have made more trips in a car (a 7% increase).

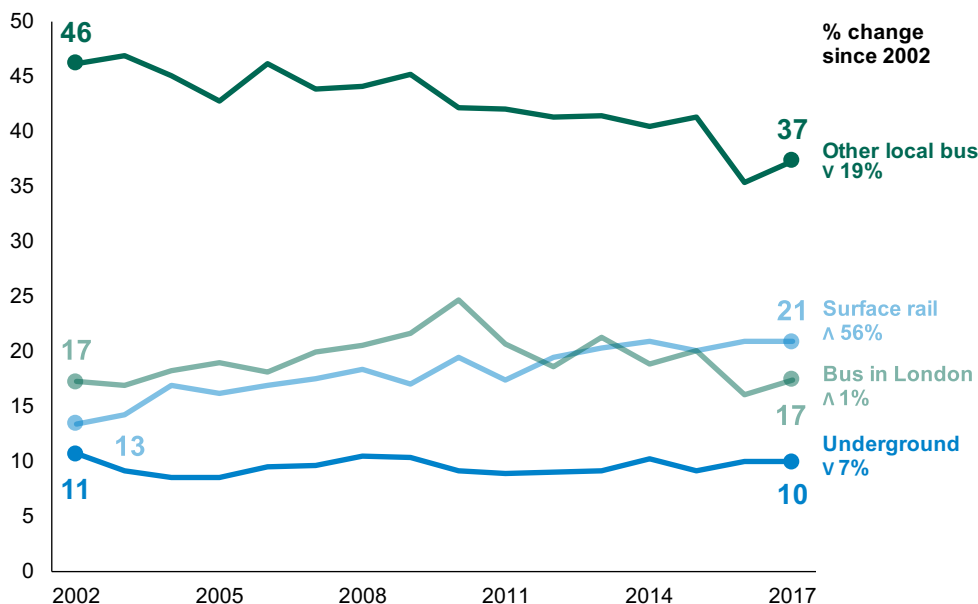
# Trends in public transport usage

While car trips per person have generally been decreasing, especially to 2013, there is a mixed picture for different public transport modes.

Surface rail trips per person per year have increased by 56% between 2002 and 2017 to 21 trips (Chart 10). Trips on London buses, that decreased in the years from 2010 onwards were at the same level in 2017 as 2002. Trips on other local buses decreased by 19% between 2002 and 2017.

**Chart 10: Trips per person per year by selected public modes: England, 2002-2017 [NTS0303]**

Trips per person per year



There are a broadly similar set of trends for the distance travelled (Chart 11 over the page). People travelled an average of 558 miles per person on surface rail in 2017, a 28% increase since 2002. There was also an increase in the average miles travelled on the London Underground between 2002 and 2017.

After a significant drop in average miles travelled per person on buses in London between 2015 and 2016, this figure rose to 78 miles per person per year in 2017. This was 20% higher than that for 2002.

Finally, the average distance travelled on local buses outside of London has also decreased since 2002, by 15% to 180 miles per person per year. These trends are broadly consistent with data collected from other data sources and presented in other DfT statistical releases.

## What are the public transport modes in the NTS?

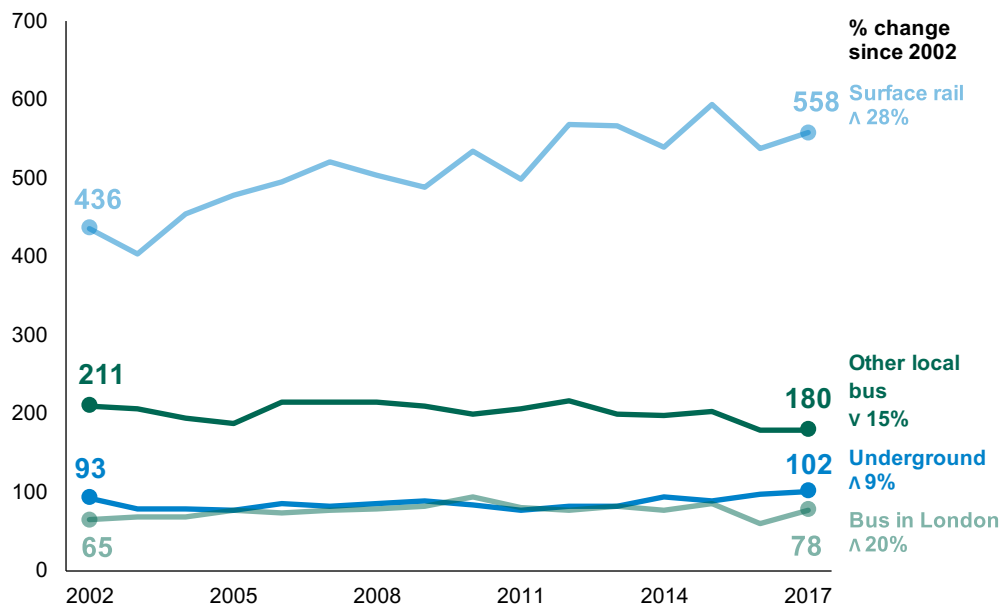
Public modes of transport in the NTS are local buses in London, other local buses, non-local buses, surface rail (that includes the London Overground), London Underground, light rail, tram and domestic air and ferry.

The NTS also classes taxis as a mode of public transport.



**Chart 11: Miles travelled per person per year by selected public modes: England, 2002-2017 [NTS0303]**

Miles per person per year



There are many factors that affect the trends in public transport. The Annual Bus Statistics release outlined some of these factors that explained the falls in bus numbers on local bus services in recent years.

Firstly, it is likely that congestion in urban areas and city centres has affected bus performance leading to a fall in bus patronage. Transport for London attribute the fall in bus patronage seen in London in the last three consecutive years to increased congestion and road works which has affected bus performance by reducing average bus speeds. Due to the impacts of congestion and road works on bus performance in urban areas and city centres people may also be switching to using other modes of transport such as light rail.

Also, household car ownership remains high and is likely to have contributed to falling bus patronage. 76% of households in England owned at least one car or van in 2017. In 2017, 56% of households in England in the lowest real income quintile owned at least one car or van, up from 48% in 2009 (Table NTS0703). This group made 75 trips per person per year on local buses in 2017, compared to the average of 55 (Table NTS0705).

Finally, any reductions of local authority supported services will likely have contributed to the decline in bus patronage on local services.

## Related data sources

DfT publishes a range of statistics on public transport including:

[Annual Bus](#)

[Statistics](#)

[Rail Statistics](#)

[Light Rail and Tram](#)

[Statistics](#)

[Taxi Statistics](#)

## Why the distinction between “buses in London” and “other local buses”?

The NTS, as well as the Department’s Annual Bus Statistics differentiate between buses in London and buses in England outside of London.

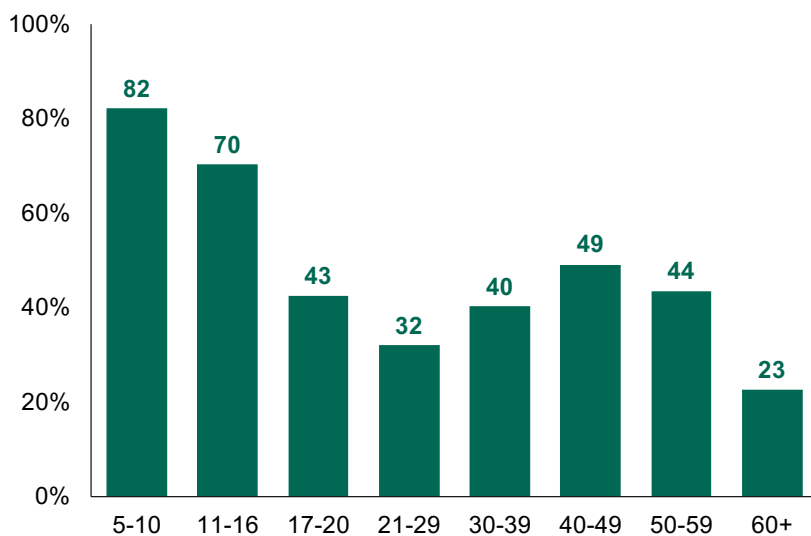
Buses in London, through Transport for London, operate under a different regulatory framework to the rest of England. The size of the bus market in London and differing trends in bus use also makes it sensible to disaggregate these two area types.

# Trends in cycling trips

The upward trend in the average cycling miles travelled continued in 2017, although trips remained at a similar level to previous years.

In the three years to 2017, 42% of people had access to a bicycle (Chart 12). Young children had the highest rates of bicycle access at 82% respectively.

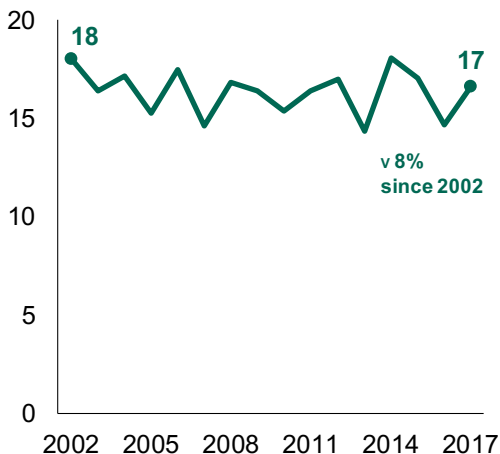
**Chart 12: % of people with access to a bicycle, by age group: England, average of 2015-2017 [NTS0314]**



The average number of miles cycled in 2017 (60 miles per person) was 54% higher than in 2002. People did an average of 17 trips per person per year in 2017, compared to 18 in 2002. The relatively small number of cycle trips in the sample means that this series can be volatile, but it has remained between 14 and 18 trips per person per year since 2002 (Chart 13).

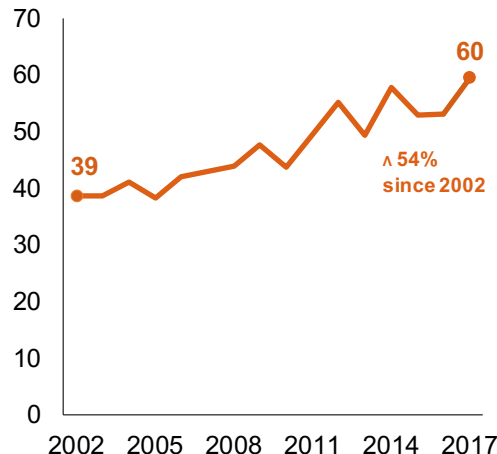
## Trips

Average bicycle trips per person per year



## Distance

Average bicycle miles travelled per person per year



## What is a cycling trip in the NTS?

A cycling trip in the NTS is one where cycling is the main mode in terms of distance. Distance figures include cycling stages made as part of any trip. The number of respondents using this mode is small, so results (particularly year-on-year variability) should be interpreted with caution.

Due to these small sample numbers, sometimes we average over more than one year to increase the reliability of the data.

**Chart 13: Trends in bicycle trips and bicycle miles travelled: England 2002-2017 [NTS0303]**

## Chart 14: Cycling frequency: England, 2017 [\[NTS0313\]](#)

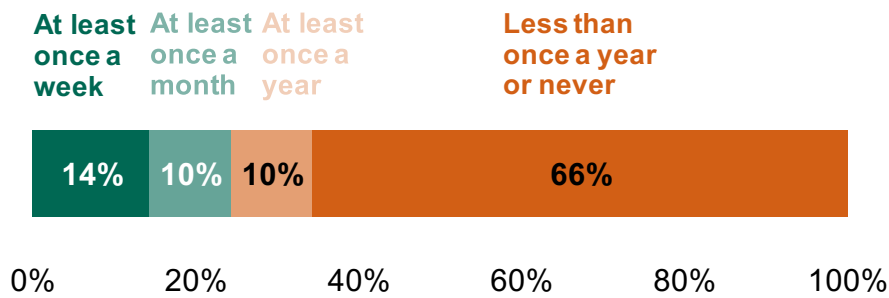
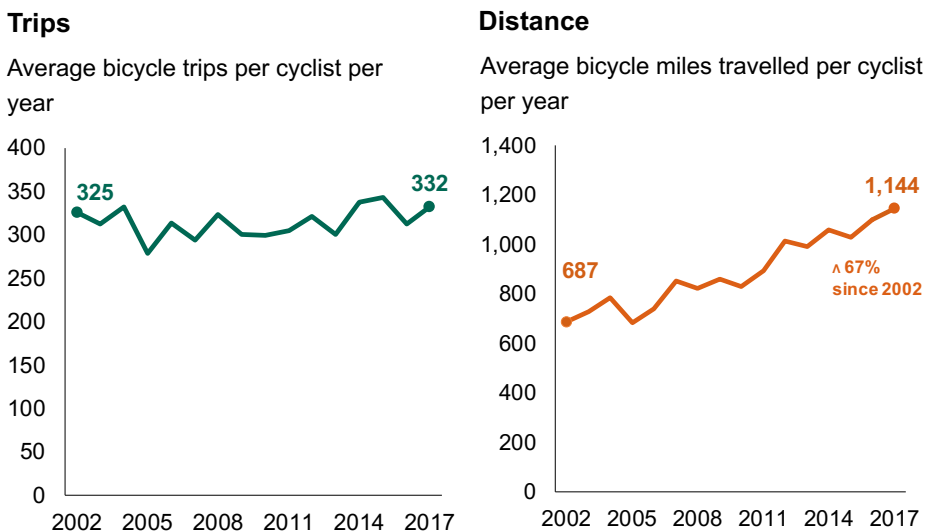


Chart 14 shows that around 14% of people cycled at least once a week, and 66% less than once a year or never, figures that have been broadly unchanged since 2003.

The previous charts are based on the average number of trips and the average miles travelled per year that include people who cannot or do not ride bicycles. If we look at the same measures but for “cyclists” (see box opposite), that is people who rode a bicycle during the week they filled out their NTS travel diary, we get a different picture. On average in 2017, cyclists made 332 trips per year (about 6 trips a week) and travelled around 1,144 miles per year, up from 687 miles on average in 2002 (Chart 15).

## Chart 15: Trends in bicycle trips and bicycle miles travelled per cyclist: England 2002-2017 [\[NTS0314\]](#)



While there have been a similar number of cycling trips made per person per year in the general population since 2002, among cyclists average trips have been increasing since 2005. The NTS sample is not identifying more cyclists, but those in the sample have generally been making more cycling trips and travelling further.

### Definition of a cyclist

In this section a ‘cyclist’ is an individual who recorded the use of a bicycle in their travel diary at least once.

The travel diary lends us a window into what these mode users are actually using bicycles for and from their interviews we can examine their characteristics.

### Further reading

DfT publishes statistics on walking at local area level as part of the annual [Local Area Walking and Cycling statistics](#).

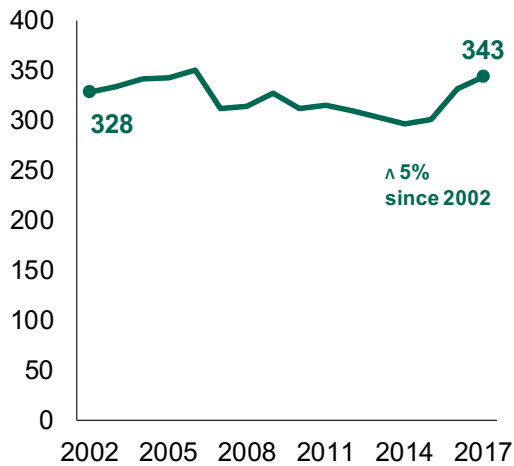
# Trends in walking

In 2017, the average number of walking stages and the average miles travelled per person per year increased, but there were fewer longer walks than in the years 2002 to 2015.

**Chart 16: Trends in walking stages and walking miles travelled: England 2002-2017 [NTS0303]**

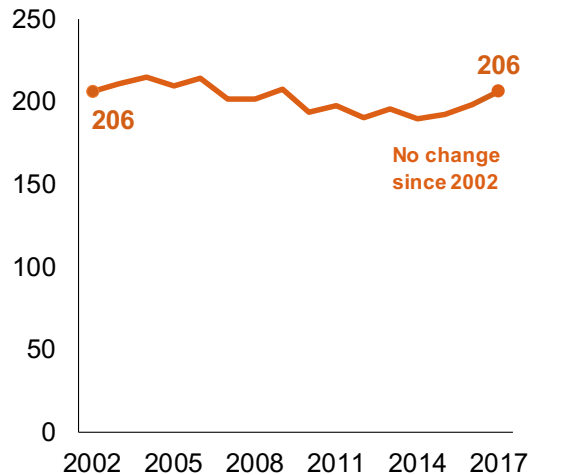
### Trips

Average walking stages per person per year



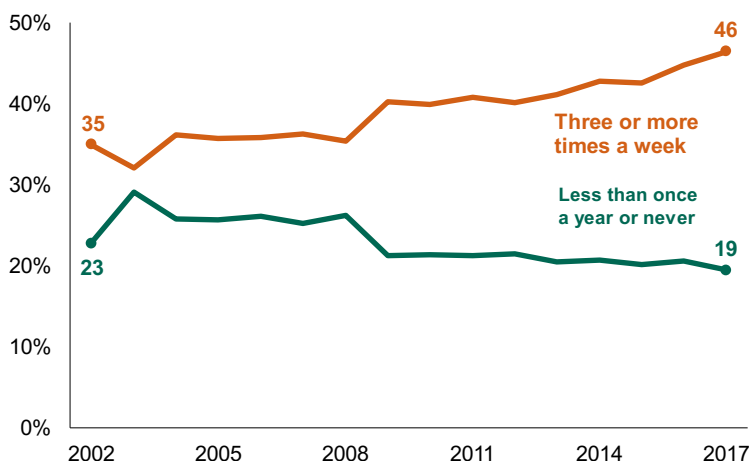
### Distance

Average walking miles travelled per person per year



The 343 walking stages that people in 2017 was the highest number since 2006 (Chart 16). However, people did fewer ‘long walks’ (those of more than a mile). The 71 stages that were long walks in 2017 was similar to 2016, and 14% less than 2002.

Additionally, the NTS asks a further question in the interview on how often people walk more than a mile. Since 2002, the proportion saying they walked for a mile or more 3 or more times week has increased, from 35% in 2002 to 46% in 2017, and the proportion who said they walked for a mile or more “never” or less than once a year decreased to 19% in 2017 (Chart 17).



**Chart 17: Proportion of people walking for 20 minutes in one walk: England, 2002-2017 [NTS0312]**

## Walks in the NTS

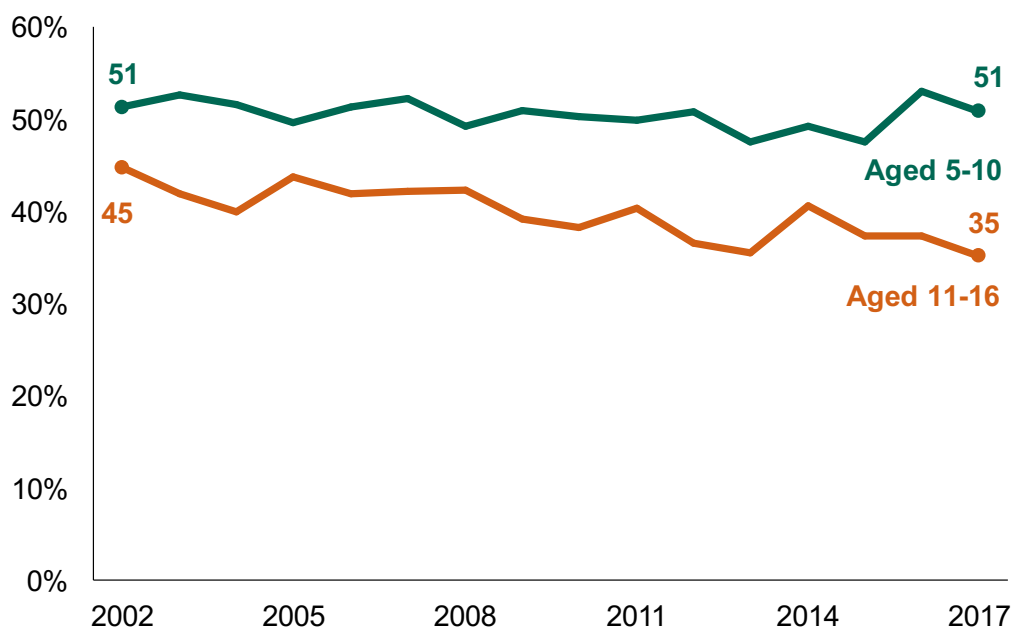
A walking stage in the NTS is one where someone walks as part of an overall trip. If the walk stage constitutes the longest stage in the trip by distance, it is also classed as **walking trip**. Walks under 50 yards and off the public highway are excluded. Walks over 50 yards but under 1 mile (“short walks”) were recorded on 1 of the travel diary.

**Distance** figures include walks made as part of any trip.

The results from the interview question (that people are taking long walks more frequently) appears to contradict the results from the diary (that the average number of longer walks have been decreasing over time). While we cannot be sure for the reasons for this, one reason might be in the way people answer the interview question. People might not answer the frequency question accurately. This might be in error, or possibly because of ‘social desirability bias’ - where a respondent gives the answer he or she thinks the interviewer wants to hear. The respondent may think the Department for Transport wants more people to walk more, and may increase the frequency of walks in their interview response because of this.

The NTS is a good source of information on walking trips for education and for going to school. In 2017, around 20% of walking trips were for education purposes (including escorting people to education) (Table NTS0409). The NTS also asks what the usual mode of travel to school was for primary and secondary school children (Chart 18).

**Chart 18: Proportion of primary and secondary school children usually walking to school , 2002-2017 [NTS0615]**



### Trips to school

The mode of travel to school can be measured in two ways in the NTS. Table NTS0613 uses information from the diary and Table NTS0615 uses information given in the interview.

We would advise using the data in Table NTS0615, although the two sources give broadly comparable results.

The proportion of primary school children walking to school has been broadly similar since 2002. In fact, the level in 2017 (51%) was the same as in 2002. The proportion of secondary school children walking to school is lower at 35%, a decrease from 45% in 2002. The lower rate in part reflects the longer distances secondary school children travel to school: 3.5 miles compared to 1.6 for primary school children.

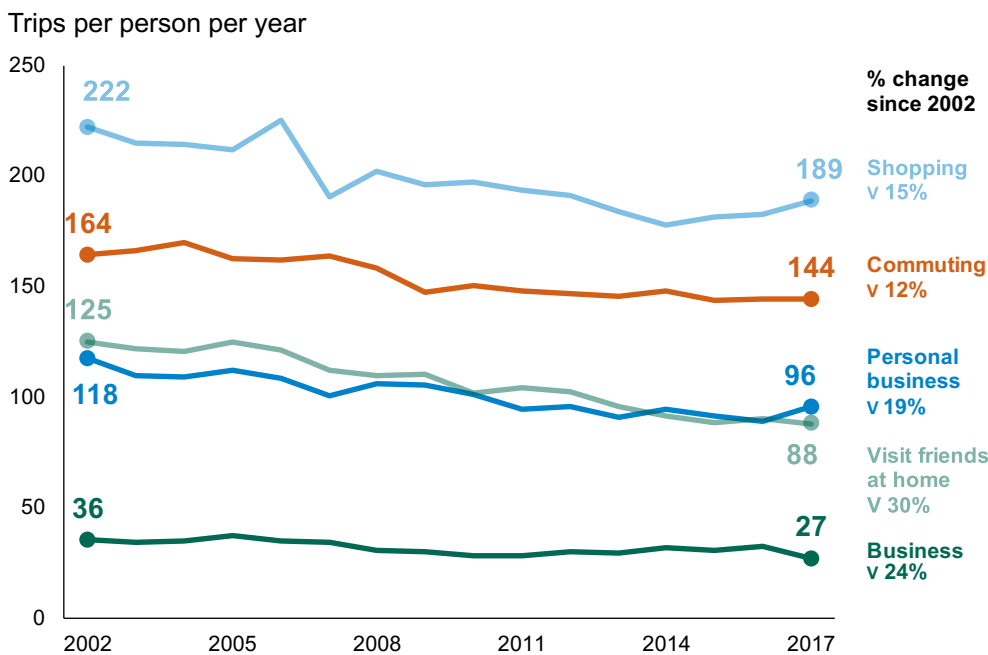
Some 97% of primary school children are accompanied to school. This level has also been broadly similar since 2002.

# Trends in trips and miles travelled by purpose

Between 2002 and 2017, both the average number of trips made per person per year, and the average miles travelled decreased for many of the main trip purposes such as commuting and shopping.

The subject of the National Travel Survey is personal travel - trips people make in order to reach a destination, with each trip having a single main purpose. Therefore the NTS provides a key source of information on why people travel.

**Chart 19: Average number of trips per person per year for selected purposes: England, 2002-2017 [NTS0403]**



Between 2002 and 2017, there were decreases in average trip rates for many of the main trip purposes. For the purpose of visiting friends at home and business trips, the decreases was 30% and 24% respectively (Chart 19).

Research by the Department (see box opposite) proposed several reasons why commuting trips have decreased in recent years:

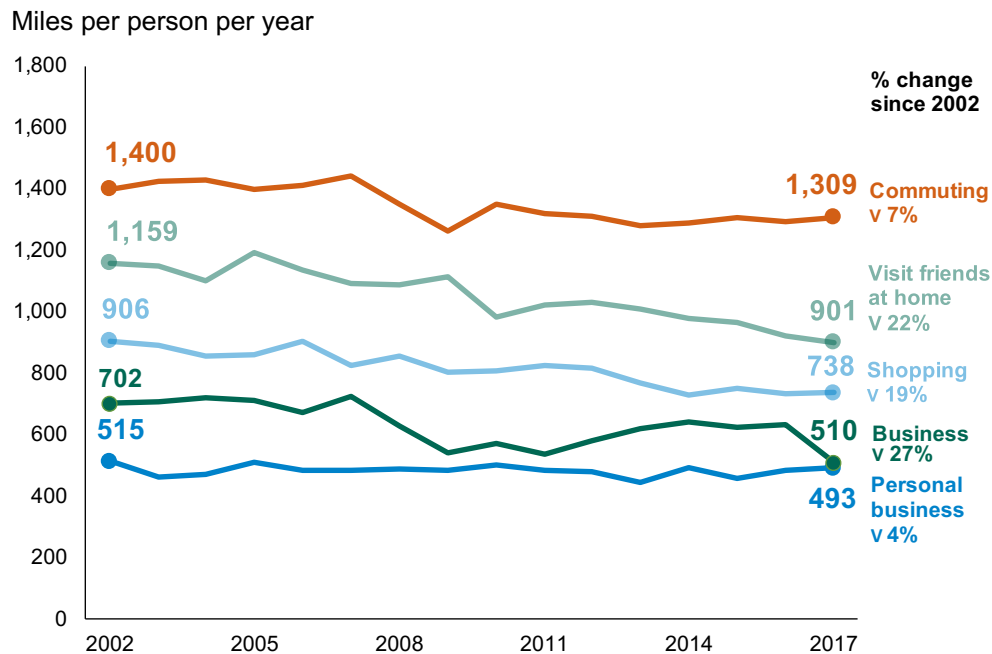
- workers are commuting to work fewer days per week
- a growth in trip-chaining (where people combine two or more trips for differing purposes, such as dropping-off children at school on the way to work) between home and work, and a corresponding decline in traditional 'Commuting', directly from a worker's home to usual workplace

## Further reading

Departmental research into commuting trends is available in the report 'Commuting Trends in England, 1988 to 2015' that used NTS (and other) data to investigate reasons for decreases in commuting trips. The report is available here: <https://www.gov.uk/government/publications/commuting-trends-in-england-1988-to-2015>

- growth in the number of workers who do not have a fixed usual workplace
- working from home is growing, both occasionally and on a usual basis
- fifthly, there has been an increase in the number of people who report that they are employed, but do not work at home and are not observed to travel to work during their NTS diary week
- part-time employment and self-employment have also expanded somewhat over time; both of these statuses are associated with reduced numbers of commuting journeys.

**Chart 20: Average miles travelled per person per year for selected purposes: England, 2002-2017 [NTS0403]**



There were similar trends for the same purposes for the average miles travelled per person per year. However, the decreases for commuting (7%) and personal business (4%) were smaller than that for trips (Chart 20). There was a significant 19% decline in the miles travelled for business trips between 2016 and 2017. While a large decrease, it is not possible to know if it is a one-off outlier or part of a longer trend. The decrease in business miles does tie in with a similar trend in household car mileage.

A potential explanatory factor for the fall in shopping trips is the spread of online shopping and the increase in delivery of goods at home. More households have goods delivered to their home; in 2017, 81% of households ordered goods, either by telephone, post or internet, the items most commonly cited being clothes, books, CDs and travel tickets. The effect on shopping trips, however, is not straightforward, as there are two competing explanations: while, in some cases, online purchases may replace a shopping trip, in other cases it may result in a new trip, for example to collect the item.

# Trends in how and why men and women travel

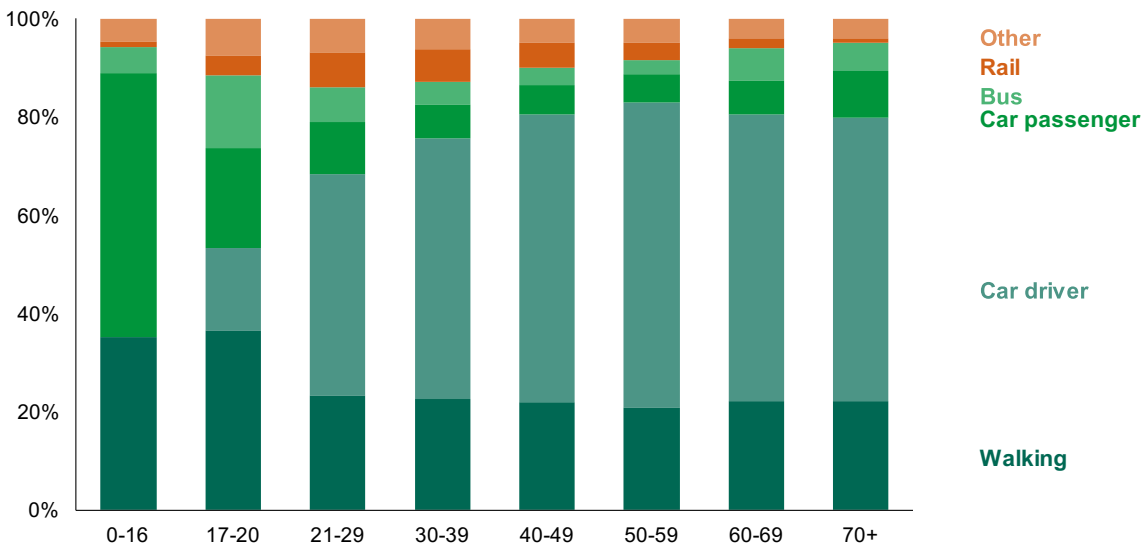
The modes of transport used, and the reason for travelling, differ between men and women, and people of different ages.

In 2017, women made 6% more trips than men, but men travelled 16% further. This partly reflects differences in the type of trips made. Women make more trips for shopping and escort education, which tend to be relatively short, whereas men make more commuting trips, which tend to be longer.

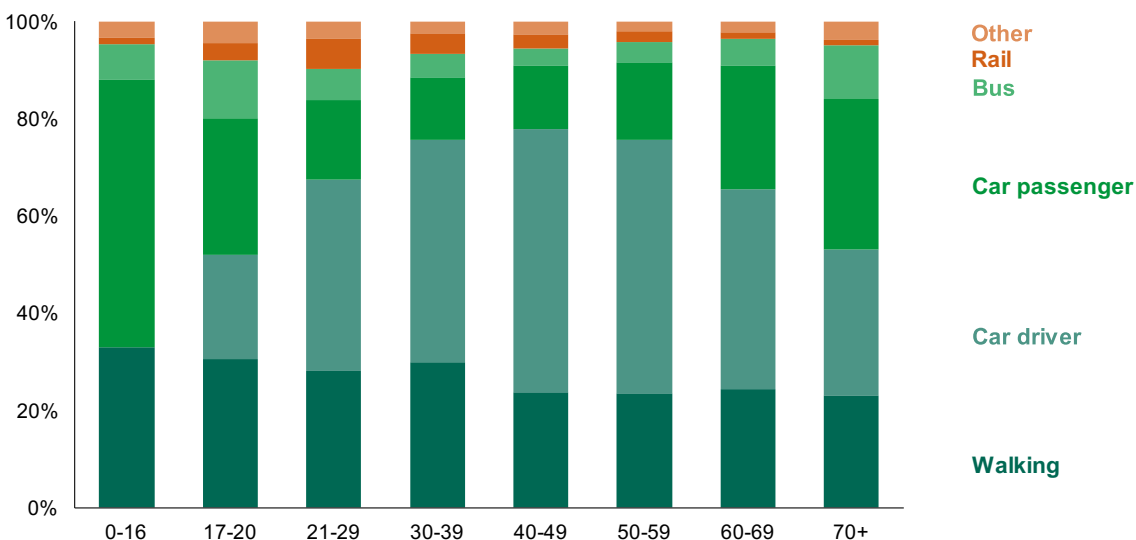
Men	Women
948 trips	1,000 trips
7,064 miles	6,110 miles
per person per year	per person per year

**Chart 21: % of trips per person per year, by mode, age and gender: England 2017 [NTS0601]**

## Men



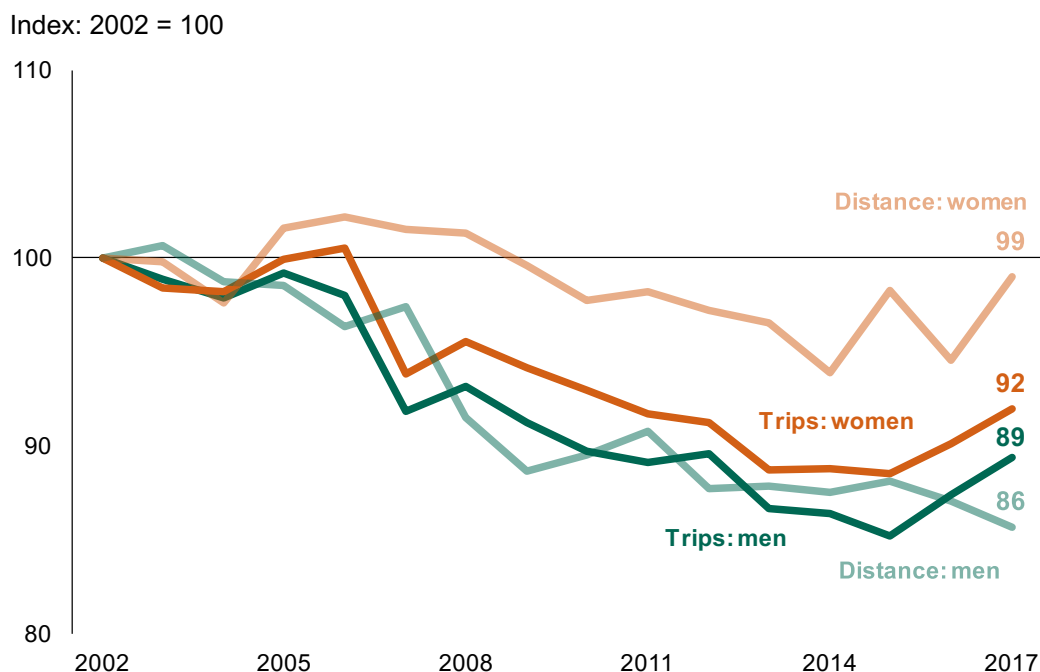
## Women





Variations in trip mode by age and gender reflect differences in access to cars, as well as different trip purposes (Chart 21). In 2017, car (as driver or passenger) accounted for more than half of trips for all age groups except 17-20 year olds. While both men and woman made 61% of their trips by car in 2017, men made a higher share of trips as a driver than women (44% compared to 37%) and this difference increased for older age groups.

People aged 17-20 year olds made more trips by bus than other age groups, almost twice as many than the average. The share of trips by bus is also relatively high for older ages, perhaps as a consequence of having free concessionary travel. Rail (including surface rail and London Underground) had its highest share among men aged 21-29 and 30-39, accounting for 7% of total trips for these two groups. Finally, walking accounted for around a third of trips by children, but a quarter of trips of adults.

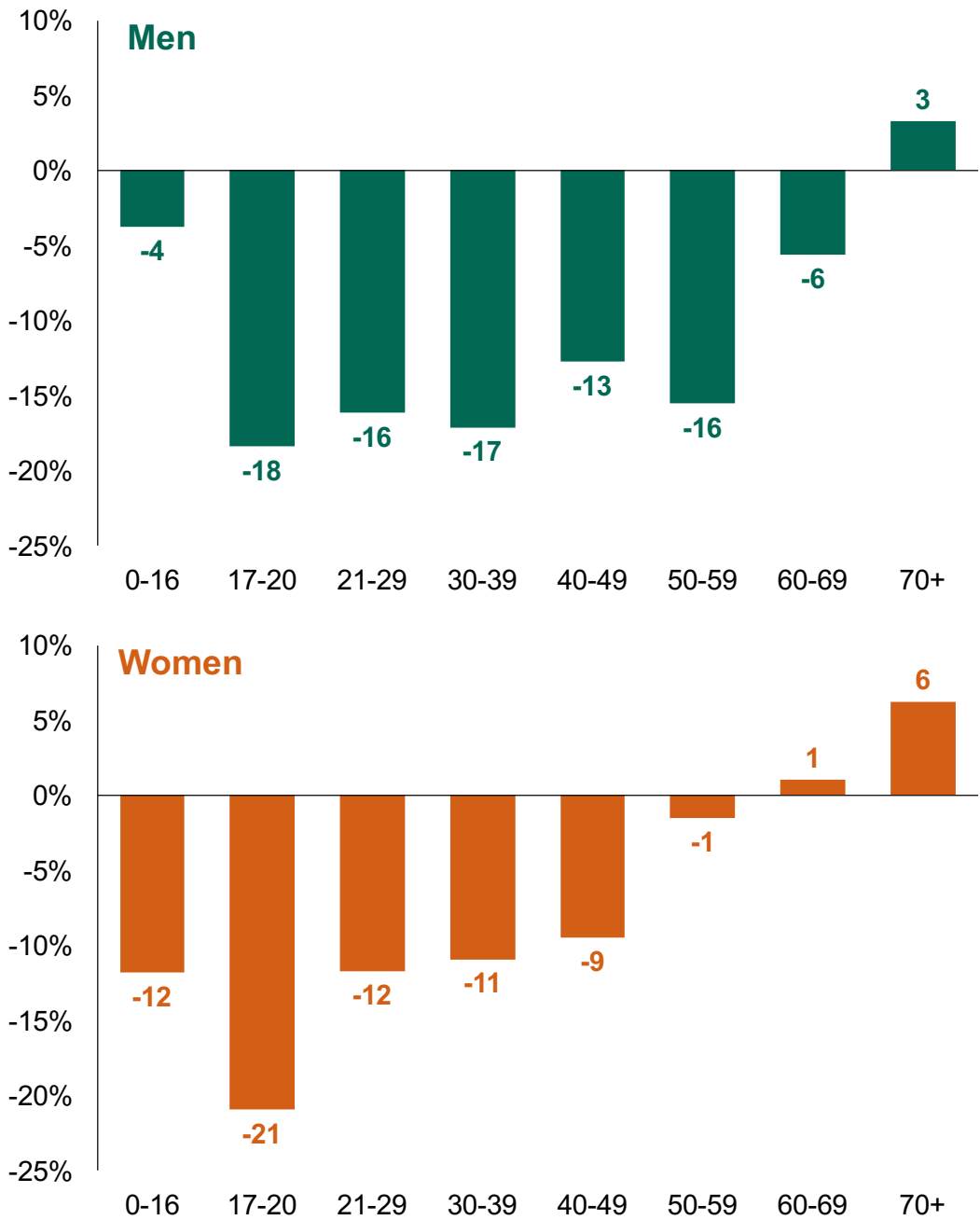


**Chart 22: Average trips and miles per person per year, by sex: England 2017 [NTS0601]**

Trip rates and distances trends are showing different trends in recent years for men and women (Chart 22). The average miles women travelled in 2017 were at almost the same level as that in 2002 and had increased by 270 miles per person per year since 2016. This was nearly all due to an increase in car miles. This was in contrast to the average miles men travelled per person that continued to decline between 2016 and 2017, mostly as a result of a drop in car driver miles.

Trips by men and women increased between 2016 and 2017, mostly as a result of an increased number of walks. It is not possible to give definitive reasons for these year on year changes, or whether these represent an overall change in travel behaviours.

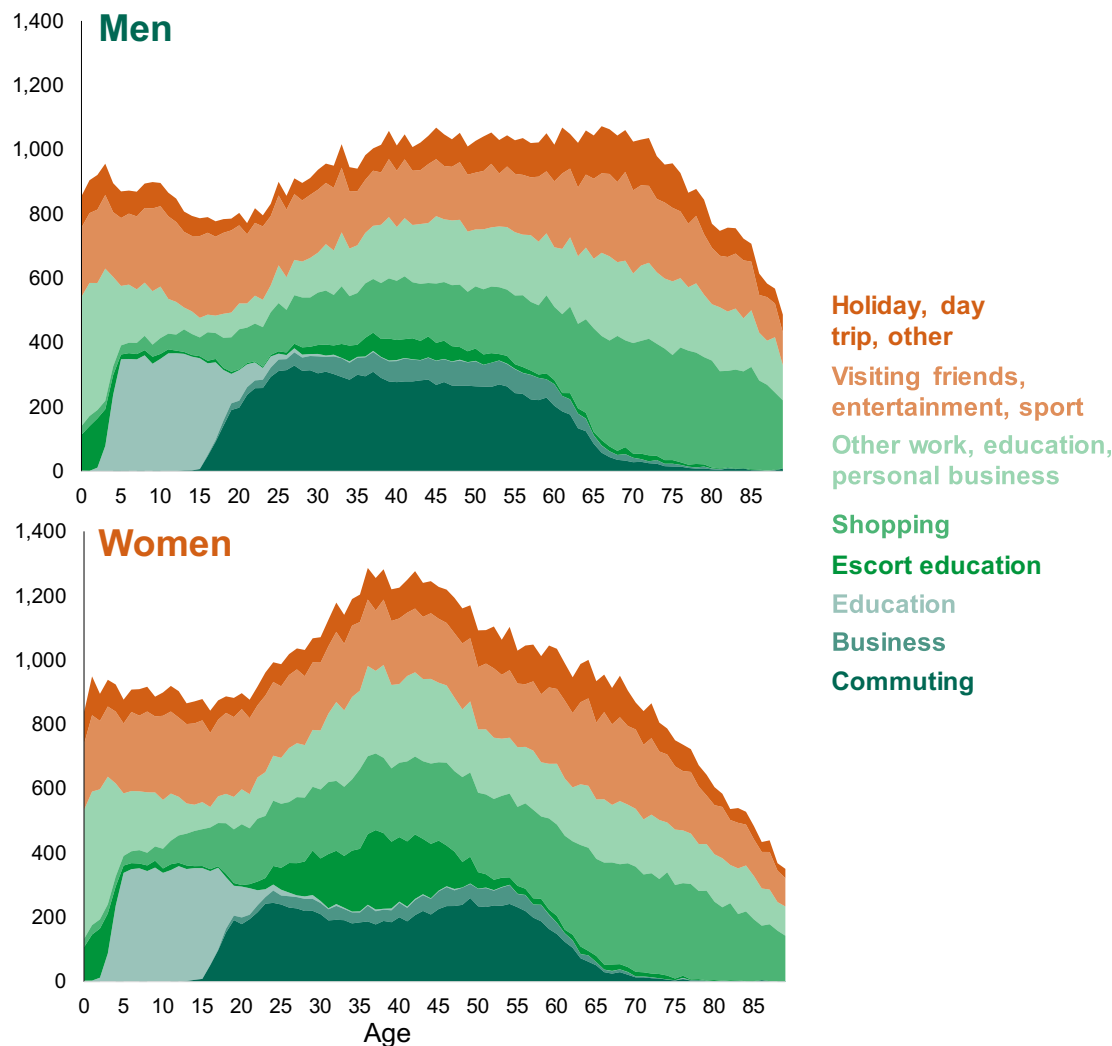
**Chart 23: % change in trips per person per year, by age and sex: England change between 2002 and 2017 [NTS0601]**



There are also differences in how trip rates have changed over time by different age groups (Chart 23). For most age groups, trip rates have decreased since 2002, with the 17-20 year old group showing some of the biggest decreases: 18% for men, and 21% for women. For women aged 60 and over, though, there has been an increase in trips per person per year over this time period. As discussed in previous sections, this might reflect the increased prevalence of driving licence holding among women, and older women in particular. that translates into higher trip rates because of increased trips by car. In 2002, 28% of trips made by women aged 60-69, and 18% by women aged 70 and over were as a car driver. In 2017, the figures had increased to 41% and 30% respectively.

**Chart 24: Average trips per person per year, by purpose, age and gender: England 2008/2017 average [based on NTS0611]**

Trips per person per year



The reasons why people travel also differs for men and women, and for men and women of different ages (Chart 24). At younger age groups, education accounts for a large proportion of trips - about 40% of trips for children aged between 5 and 15.

Between ages 15 and 30, trip rates increase for men and women at broadly the same rate; from age 25 commuting becomes the single most common reason for travel, especially for men.

Between ages 30 and 50, women make more trips than men, the most notable difference being for escort education (mostly taking children to school).

From age 60, shopping trips increase and account for around a third of trips for older age groups; however overall trip rates are lower. Men make more trips than women at these ages, on average.

## Purpose of travel

The purposes of travel used in this section can be summarised as follows:

**Commuting:** trips from home to usual place of work or from usual workplace to home

**Business:** personal trips in course of work

**Education:** trips to school or college

**Shopping:** trips to the shops or from shops to home

**Personal business:** visits to services, medical consultations, etc.

**Visit friends:** trips to visit friends, either at someone's home or elsewhere

**Other leisure:** mostly entertainment, sport, holidays and day trips

**Escort trips** are those made to accompany someone else e.g. taking a child to school is escort education.

For more details on trip purposes, please see [Notes and definitions](#).

# Travel patterns in rural and urban areas

People living in rural areas made more trips and travelled further than those living in urban areas in 2016/17. People in the most rural areas travelled almost twice as far on average than people in urban conurbations (including London).

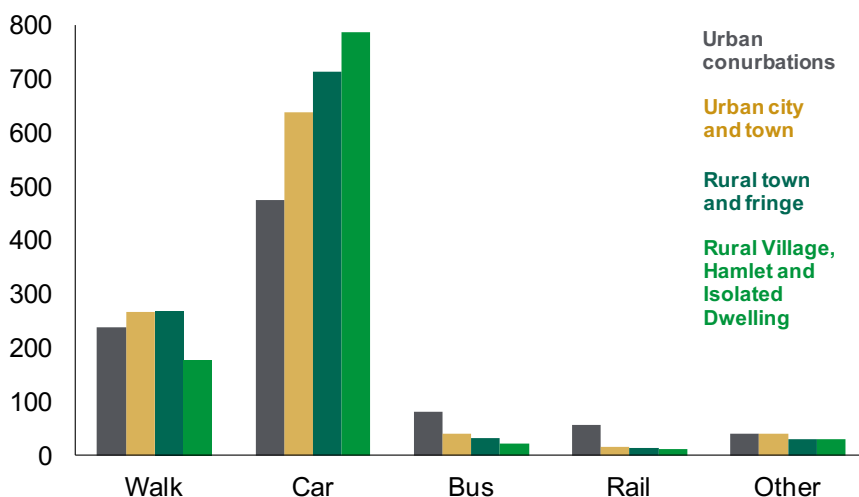
The difference in overall trip rates between types of residence is mainly due to differences in levels of car use. For the average of 2016 and 2017, people living in the most rural areas made fewer walking trips and more car trips than average. People living in urban conurbations made use in particular of buses (81 trips per person per year) and rail (56 trips per person per year, including London Underground) than people living in other types of area.

Urban conurbations	Urban city and town	Rural town and fringe	Rural Village, Hamlet and Isolated Dwelling
890 trips	1,000 trips	1,057 trips	1,028 trips
5,175 miles	6,639 miles	8,787 miles	10,122 miles
per person per year	per person per year	per person per year	per person per year

Public transport modes accounted for 18% of trips for people in urban conurbations, compared to 4% of trips by residents in the most rural areas.

People living in the most rural areas rely more on the car, which accounted for 76% of all their trips in 2016/17. By comparison, 53% of trips by residents of urban conurbations (and 36% of trips by London residents) were made by car in 2016/17 (Chart 25).

Trips per person per year



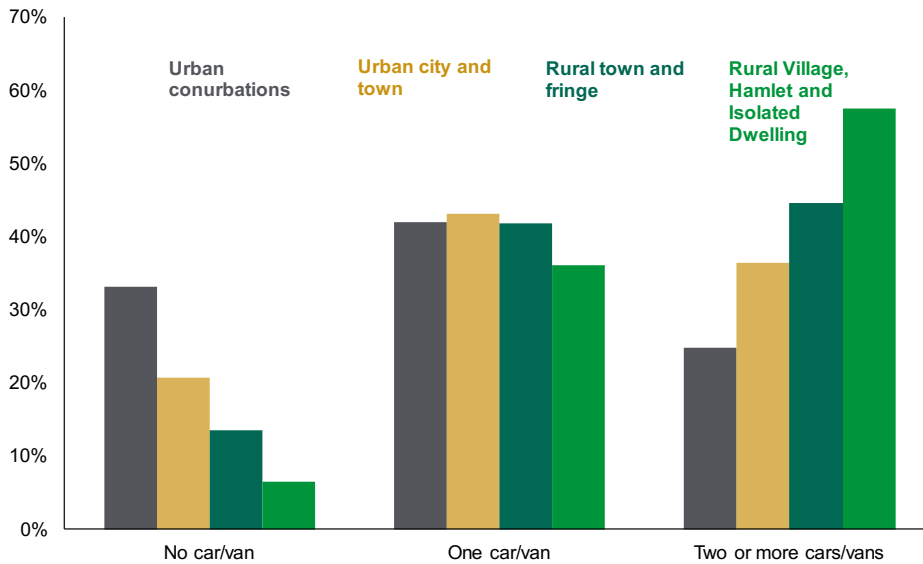
**Chart 25:**  
Average trips per person per year, by mode and area type: England 2016/2017 [NTS9903]

## Rural and urban areas

The types of residence presented here are based on the 2011 Rural-Urban Classification. An area is defined as rural if it falls outside of settlements with a resident population of more than 10,000. please see: <https://www.gov.uk/government/collections/rural-urban-definition>.

Given the main difference in travel patterns between urban and rural areas lies in car use, households living in rural areas are also more likely to have access to a car or van than urban residents. Indeed, 33% of households in urban conurbations do not have a car (and 41% in London), compared to 21% in urban cities and towns, 14% in rural towns, and 6% in the most rural areas. Conversely, half of households living in the most rural areas have more than one car/van (Chart 26).

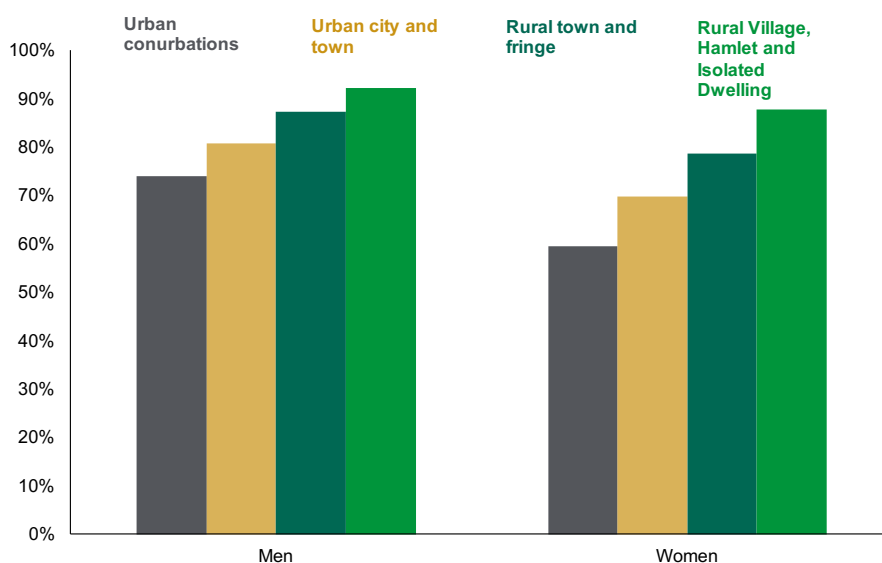
**Chart 26: Household car access, by area type: England, 2016/2017 [NTS9902]**



**Further reading**

[The Statistical Digest of Rural England](#) uses a lot of NTS data and includes various rural/urban analyses.

The same difference by type of residence is observable in the holding of a driving licence. 67% of residents in urban conurbations held a driving licence, compared with 90% of people living in the most rural areas. The gap in driving licence holding between men and women is also narrower in rural areas. The gap was 9 percentage points in rural town and fringe areas, and 5 percentage points in more rural areas, compared to 14 percentage points in urban conurbations (Chart 27).



**Chart 27: % of adults aged 17+ with a driving licence, by sex and area type: England 2016/2017 [NTS9901]**

# Factsheets

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We have produced a series of factsheets to accompany this publication that give some key statistics in summary form for different modes of transport, and different purposes. These are available here: <https://www.gov.uk/government/statistics/national-travel-survey-2017>.

The topics covered are:

- How people travel - walking
- How people travel - bicycle
- How people travel - car
- How people travel - bus
- How people travel - surface rail
- How people travel - air
- Why people travel - shopping
- Why people travel - commuting
- Why people travel - business
- Why people travel - leisure
- Why people travel - education

## Notes and background information

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This publication presents an overview of results from the 2017 National Travel Survey. This section provides brief background notes and links to sources of further information.

## Other topics covered by the NTS

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The National Travel Survey covers a range of topics, including the following, which are covered by the published NTS data tables at: <https://www.gov.uk/government/collections/national-travel-survey-statistics> provides a set of results tables covering the topics presented in this release and the additional topics above. The full list of table sections is:

- Trends in personal travel (Tables [NTS0101 to NTS0108](#))
- Driving licence holding and vehicle availability (Tables [NTS0201 to NTS0208](#))
- How people travel (Tables [NTS0301 to NTS0317](#))
- Why people travel (Tables [NTS0401 to NTS0412](#))
- When people travel (Tables [NTS0501 to NTS0506](#))
- Travel by age and gender (Tables [NTS0601 to NTS0625](#))
- Travel by car availability, income, ethnic group, household type and NS-SEC (Tables [NTS0701 to NTS0710](#))
- Accessibility (Tables [NTS0801 to NTS0806](#))
- Vehicles (Tables [NTS9901 to NTS9915](#))
- Travel by region and Rural-Urban Classification of residence (Tables [NTS9901 to NTS9915](#))

## Related information

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Other travel surveys in Great Britain. From January 2013, the coverage of the NTS changed to sample residents of England only. This change was agreed following a public consultation in 2011. Details of the consultation outcome can be found at:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/230560/NTSconsultationSummaryofresponses.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/230560/NTSconsultationSummaryofresponses.pdf)

Related surveys carried out in other areas of Great Britain which cover similar topics (though do not use the same collection methods as NTS) include:

Transport Scotland collect personal travel data for residents of Scotland using a one day travel diary in their Scottish Household Survey:

<http://www.transportscotland.gov.uk/statistics/scottish-household-survey-travel-diary-results-all-editions>

In Northern Ireland data are collected via the Travel Survey for Northern Ireland, based on a similar methodology to the NTS (interview and 7-day travel diary):

<https://www.infrastructure-ni.gov.uk/articles/travel-survey-northern-ireland>

The Welsh Government collect information on active travel as part of the National Survey for Wales, although this does not include a travel diary:

<http://gov.wales/statistics-and-research/national-survey/>

Within England, Transport for London conduct the London Travel Demand Survey for London residents which is much bigger than the London sample of the NTS (and uses a different data collection method):

[tfl.gov.uk/corporate/publications-and-reports/london-travel-demand-survey](http://tfl.gov.uk/corporate/publications-and-reports/london-travel-demand-survey)

Other transport statistics. In addition to National Travel Survey statistics presented here, DfT and others publish a range of statistics related to modes of transport - as signposted throughout this document. 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 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.

The full range of statistics published by DfT can be found at <https://www.gov.uk/government/organisations/department-for-transport/about/statistics>



# Methodology notes

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## Strengths and limitations of the NTS

The NTS is a long-running survey which uses a high-quality methodology to collect a broad range of information on travel behaviours at the England level. The methodology has been broadly unchanged over several decades meaning that trends can be monitored. Figures are weighted to be representative of the population. However, like any statistical source, the NTS has its limitations. For example, as a sample survey resulting figures are estimates with associated sampling error. In addition, figures below national level require several years data to be combined, and figures for geographies below regional level cannot be published.

## Survey methodology

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 Technical Report at:

<https://www.gov.uk/government/publications/national-travel-survey-2015>

A 'Notes and definitions' document which includes background to the NTS, response rates, sample size and standard error information and a full list of definitions can be found at:

<https://www.gov.uk/government/publications/national-travel-survey-2015>

## Sample sizes

These 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.

A note explaining the methodology used to calculate the 2009 NTS standard errors and tables of standard errors for selected key statistics are published at:

<https://www.gov.uk/government/publications/nts-standard-error-guide>

As noted under the future plans section, we are currently in the process of developing a process to produce standard errors for the NTS, updating those published in 2011 using 2009 data. Until that time, users are advised to use those published standard errors for other years from 2002 as a general guideline to the confidence of the estimates shown.

## National Statistics

The NTS results are produced to high professional standards set out in the Code of Practice for Official Statistics. The National Travel Survey was assessed by the UK Statistics Authority against the Code of Practice and was confirmed as National Statistics in July 2011. 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-2015>



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## Revising the short walk estimates

Details of short walks (that is walks of more than 50 yards and less than one mile) in the 2017 survey were collected on day 1 of the travel diary. As described in the July 2017 bulletin, data for 2016 were based on an experiment to collect short walks data on day 1 for half of the sample, and day 7 for the other half of the sample. Short walk data for years prior to 2016 were collected on day 7 of the sample.

We had planned to follow up the July 2017 statistical release with a publication containing reweighted NTS data for short walks from 2002 to 2015. However, we decided to wait until summer 2018 to complete reweighting. This enabled us to consider the new 2017 data as part of that work and produce a consistent set of walking data from 2002 to 2017.

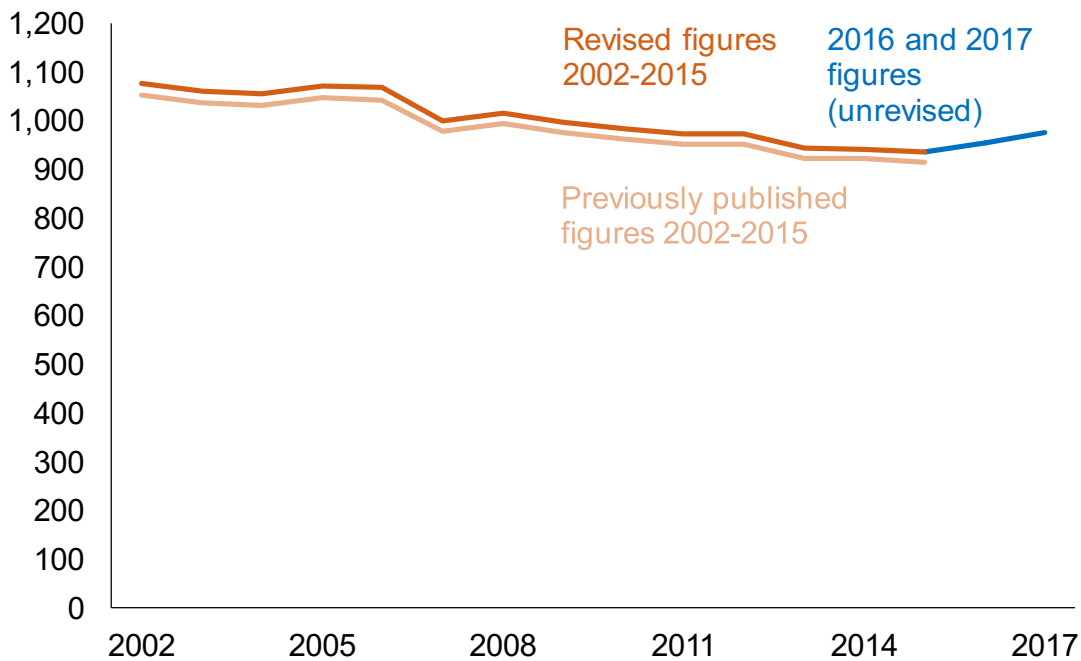
We have now revised the back series from 2002 to 2015 and the impact is a revision upwards of 20 to 25 short walk trips per person per year. The data were revised by applying an uplift factor to the short walk weight that increased the probability of reporting short walks on day 7 to match the probability of reporting them on day 1.

The table below gives the change between the new and revised figures for 2015 for all trips, walking trips and short walk trips for illustrative purposes. There have been no revisions to figures for other modes.

	Previous 2015	Revised 2015	Change	% change
<b>All modes (per person per year)</b>				
Trips	914	934	+20 trips	2.2%
Miles	6,649	6,657	+8 miles	0.1%
Hours	368	372	+4 hours	1.0%
<b>All walk (per person per year)</b>				
Trips	200	219	+20 trips	9.9%
Miles	184	192	+8 miles	4.5%
Hours	61	65	+4 hours	6.2%
<b>Short walks (per person per year)</b>				
Trips	132	152	+20 trips	15.0%
Miles	78	86	+8 miles	10.7%
Hours	25	29	+4 hours	15.0%

In 2015, the reweighting produced an increase in the average number of trips per person per year by 2.2%; a negligible increase in the average distance travelled; and a 1% increase in the average time spent travelling. There was a 10% increase in total walking trips, and a 15% increase in short walk trips. The revisions for other years produced similar results.

## Total trips per person per year, pre- and post-short walk reweighting: England, 2002-2017



The chart above shows the trend from 2002 to 2017 before and after reweighting. There is now an increase of 2% in the total number of trips between 2015 and 2016 (with a corresponding 11% increase for all walks and an 18% increase for short walks).

There were more short walks recorded in 2016 than 2015, even when taking into account the change in methodology. Comparing unweighted figures on a like-for like basis (that is, comparing short walks trip rates on day 7 for both years), short walk trip rates per person were 15% higher in 2016 than in 2015. It is not clear why there was this increase. The short walks were recorded in diaries, but we cannot conclude whether it is a result of people making more short walks because of a behaviour change, or whether it was an (unknown) consequence of the 2016 experiment.

If it was a product of the experiment in 2016, then we might expect the 2017 short walk figures to be lower. However, between 2016 and 2017 there was a further increase of 2% in total trips. And on a like for like basis (that is comparing short walk trip rates on day 1 for both years) short walk trip rates were 2% higher in 2017 than 2016.