



Department for Transport

# Road Traffic Estimates: Great Britain 2019

## Minor Road Traffic Estimates Revisions

Minor road traffic estimates from 2010 to 2019 have been revised as a result of a planned benchmarking exercise. Further information on this exercise and the impact it has had on latest traffic estimates can be found on [page 2](#).

### About this release

This release presents the 2019 annual estimates of traffic on Great Britain's roads. It does not cover the impact on traffic of the coronavirus pandemic. For more on this, see [page 2](#).

The release looks at recent and long term trends in traffic broken down by vehicle type, road category and geographic area, in the context of related statistics. Traffic statistics are mostly presented in units of vehicle miles, which combines the number of vehicles on the road and how far they drive.

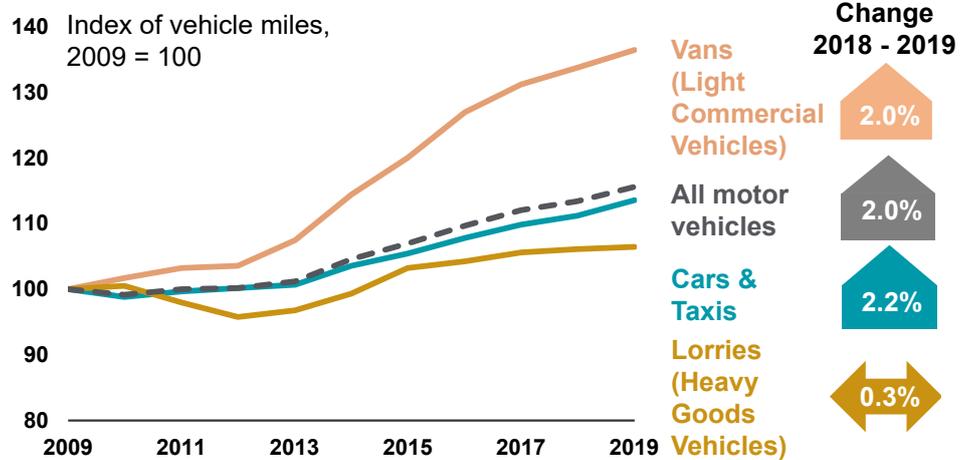
Annual traffic statistics are compiled using data from around 8,000 roadside 12-hour manual counts, continuous data from automatic traffic counters, and data on road lengths.

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## 356.5 billion vehicle miles were driven on Great Britain's roads in 2019, an increase of 2% compared to the previous year

Vehicle miles travelled by selected vehicle types in Great Britain, 2009-2019



### In 2019:

- **Car traffic** increased by 2.2% from 2018 levels. The figure of 278.2 billion vehicle miles (bvm) is the highest annual estimate ever of car traffic ([page 6](#)).
- **Van traffic** grew by 2.0% from 2018 to 55.5 bvm, a new peak level for van traffic. ([page 8](#)).
- **Lorry traffic** remained broadly stable compared to 2018, at 17.4 bvm ([page 10](#)).
- **Pedal cycle traffic** (cyclists on public highways, and the paths adjacent to them) was 3.5 bvm, 16.4% above ten years ago ([page 15](#)).
- **Motorways** carried 70.5 bvm of traffic, increasing by 2.1% compared to 2018, and 14.1% more than ten years ago ([page 19](#)).
- **The Strategic Road Network** carried 96.8 bvm of traffic (a new high); almost one-third of all motorised traffic in England ([page 23](#)).
- **'A' roads** saw a 1.1% rise in traffic from 2018 ([page 18](#)).
- **Minor road traffic** increased by 2.9% since 2018 ([page 18](#)).

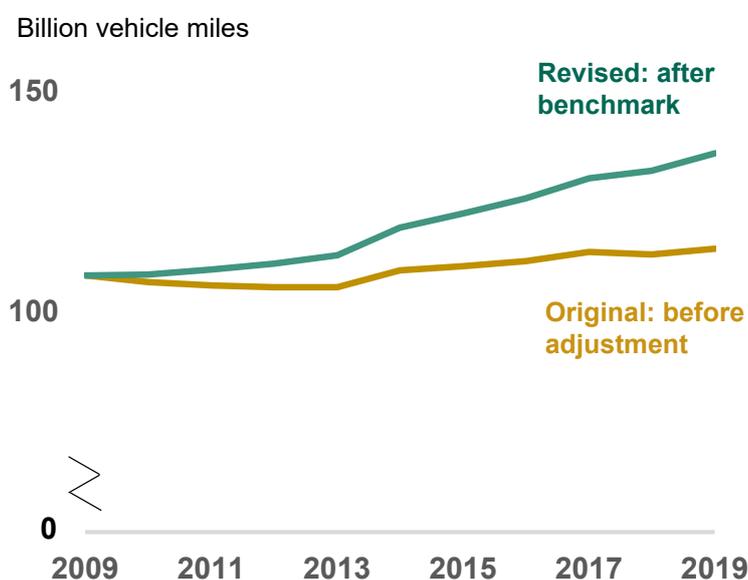
# About this Release

## Minor Road Traffic: 2019 Benchmark Overview

Minor road traffic estimates from 2010 to 2019 have been revised as a result of a planned benchmarking exercise. The Department for Transport produces annual estimates of traffic on minor roads by undertaking traffic counts at a fixed sample of points each year. Although retaining a fixed sample ensures a more precise measure of traffic growth between consecutive years, a fixed sample may drift over time and the sample may vary and become less representative of the changing minor road network. In order to correct for any sampling errors, a larger benchmark sample is taken every decade, to recalibrate the traffic estimates on minor roads.

The 2019 minor benchmark exercise has resulted in an overall adjustment factor for minor road traffic in Great Britain of 1.19. This means that the benchmark adjusted 2019 minor road traffic estimates are 19% higher than those calculated from the 2019 fixed annual sample. The adjustment has been tapered back to 2010, giving a consistent back series. With the benchmarking adjustment applied there has been a 2% increase in GB road traffic between 2018 and 2019, without the benchmark it would have been 1.1%.

### Minor road traffic in Great Britain: before and after applying the benchmark adjustment, 2009-2019



### Further information:

For more information about the minor benchmark, see page [37](#) and the benchmark project reports: <https://www.gov.uk/government/publications/road-traffic-statistics-minor-road-benchmarking>

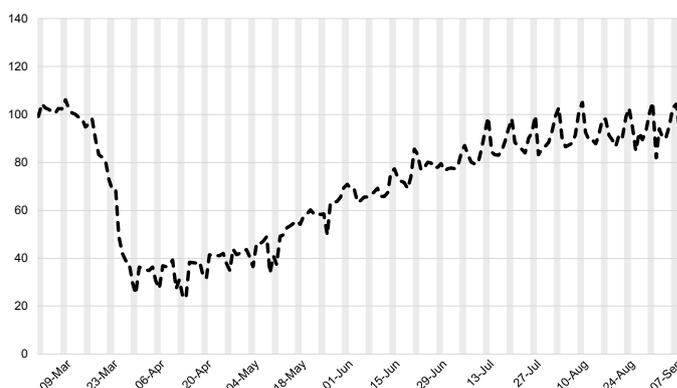
## Impact of Coronavirus (COVID-19) on Traffic Estimates

The traffic estimates presented in this release cover the calendar year of 2019 and, therefore, does not cover the impact on traffic of the coronavirus pandemic.

Daily road traffic figures showing trends since 1 March 2020 are being published on a weekly basis. However, in order to achieve a daily estimate of traffic change, lower levels of validation have been applied compared to the statistical outputs presented here.

The latest daily road traffic data (and further background information) is available at: [www.gov.uk/government/statistics/transport-use-during-the-coronavirus-covid-19-pandemic](http://www.gov.uk/government/statistics/transport-use-during-the-coronavirus-covid-19-pandemic).

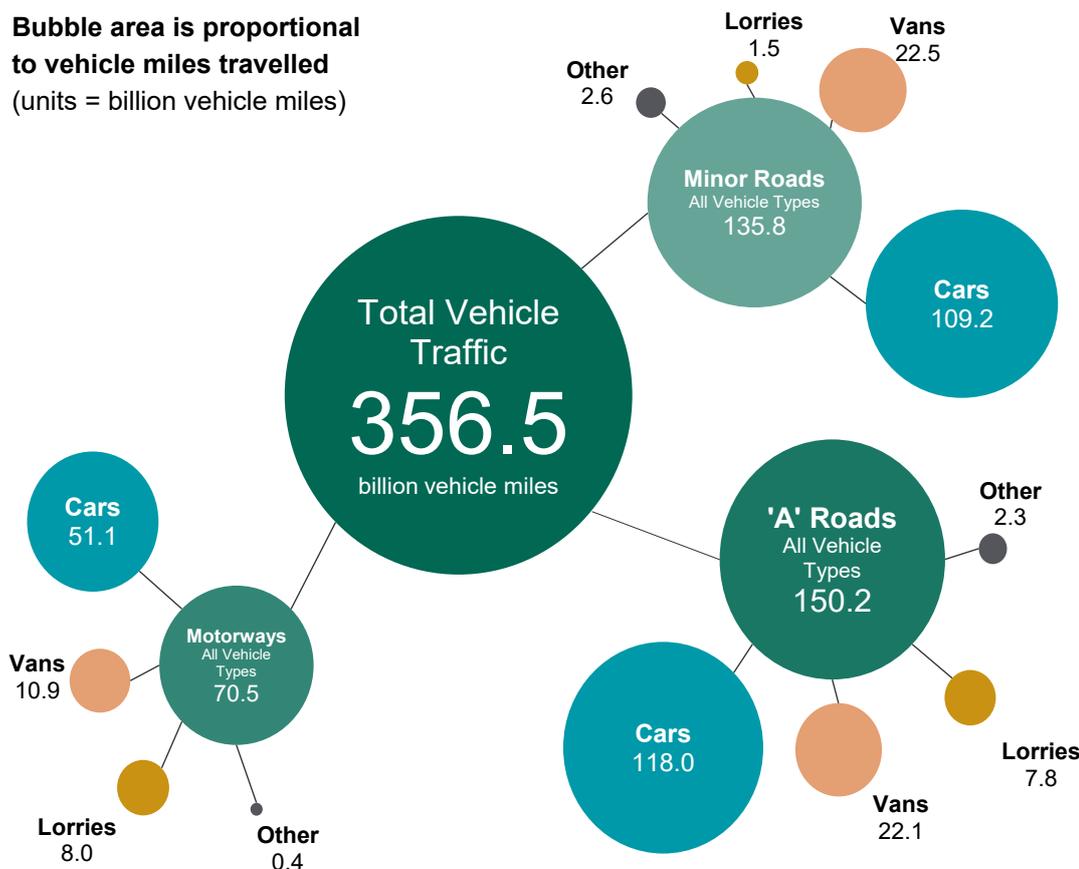
### Change in daily traffic volumes on Great Britain's roads



# Summary statistics

## Breakdown of traffic in Great Britain 2019, by vehicle type and road type

Bubble area is proportional to vehicle miles travelled (units = billion vehicle miles)



## Key definitions:

### Traffic

Traffic refers to the total distance travelled by all vehicles over the year, measured in **vehicle miles**. This combines the number of vehicles on the road, and how far they drive.

### Flow

Flow refers to the average number of vehicles travelling along a given stretch of the road network per day (24 hours).

### Billion

In this release 1 billion = 1000 million (10<sup>9</sup>).

### Index Number

Used in this release to compare changes over time (from a selected base year) across multiple indicators where they cannot be directly compared.

The summary table below shows patterns in vehicle traffic across a range of years.

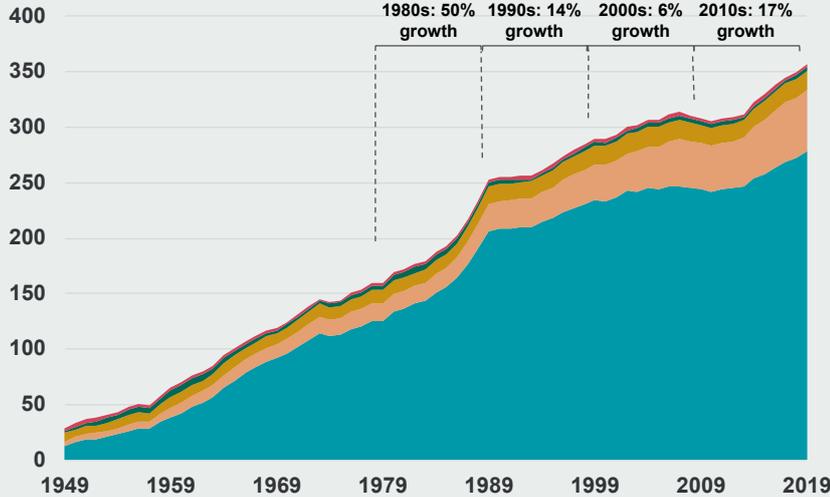
	Vehicle Miles 2019	Percentage change from:			
		Last Year 2018	5 Years Ago 2014	10 Years Ago 2009	25 Years Ago 1994
<b>All Motor Vehicle Traffic</b>	<b>356.5 billion</b>	↑ 2.0%	↑ 10.7%	↑ 15.7%	↑ 36.1%
<b>Cars and Taxis</b>	<b>278.2 billion</b>	↑ 2.2%	↑ 9.7%	↑ 13.7%	↑ 29.8%
<b>Vans (Light Commercial Vehicles)</b>	<b>55.5 billion</b>	↑ 2.0%	↑ 19.2%	↑ 36.5%	↑ 106.2%
<b>Lorries (Heavy Goods Vehicles)</b>	<b>17.4 billion</b>	↔ 0.3%	↑ 7.1%	↑ 6.5%	↑ 12.8%
<b>Buses</b>	<b>2.4 billion</b>	↓ -2.2%	↓ -17.3%	↓ -22.6%	↓ -16.1%
<b>Motorcycles</b>	<b>3.0 billion</b>	↓ -1.1%	↑ 2.3%	↓ -6.4%	↑ 26.8%
<b>Pedal cycles</b>	<b>3.5 billion</b>	↑ 3.4%	↔ -0.2%	↑ 16.4%	↑ 38.3%
<b>Motorways</b>	<b>70.5 billion</b>	↑ 2.1%	↑ 8.8%	↑ 14.1%	↑ 60.4%
<b>'A' Roads</b>	<b>150.2 billion</b>	↑ 1.1%	↑ 8.5%	↑ 8.7%	↑ 23.9%
<b>Minor Roads</b>	<b>135.8 billion</b>	↑ 2.9%	↑ 14.2%	↑ 25.6%	↑ 40.4%
<b>Strategic Road Network (SRN)</b>	<b>96.8 billion</b>	↑ 2.2%	↑ 10.9%	↑ 14.8%	

# Long-term traffic trends

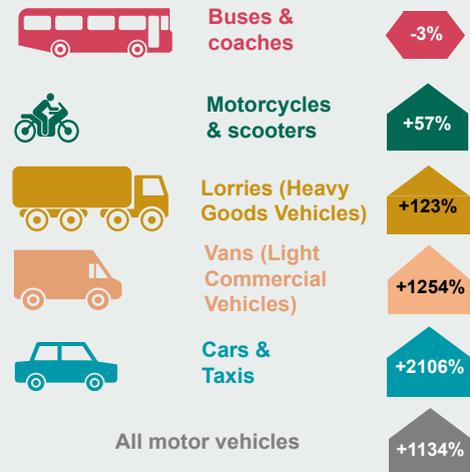
Since 1949 motor vehicle traffic has increased more than twelve-fold from 28.9 to 356.5 billion vehicle miles, largely driven by steady growth in car traffic.

## Motor vehicle traffic in Great Britain, since 1949

Billion vehicle miles



Change 1949 - 2019

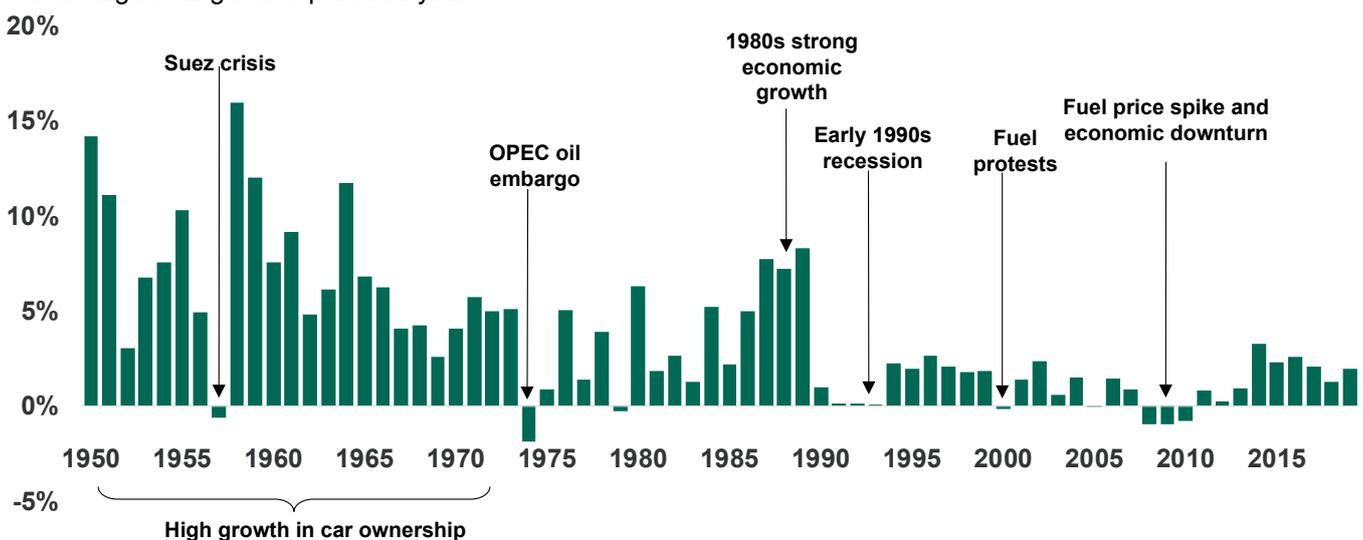


The level of traffic growth since 1949 has varied by vehicle type. Car traffic in 2019 was over 20 times higher, whereas lorry traffic was only around twice as high and bus traffic was similar to the 1949 level. This has altered the share of traffic by vehicle type over time, with the car traffic share rising from 44% in 1949 to 78% in 2019, and the lorry traffic share falling from 27% to 5%.

Traffic growth from year to year has not been constant, being punctuated by short periods of stasis or decrease due to various factors (discussed in the section 'Factors affecting traffic').

## Year-on-year growth in motor vehicle traffic in Great Britain, since 1950

Percentage change from previous year



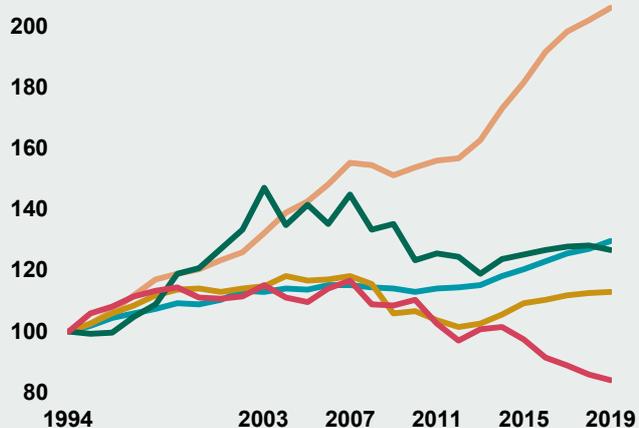
In contrast to motor vehicle traffic, pedal cycle traffic (on public highways, and the cycle paths and footpaths adjacent to them) fell rapidly during the 1950s and 1960s, followed by a period of relative stability. Since 2000, there has been a steady rise to 3.5 billion cycle miles in 2019. Cycling levels in 2019 were 34% higher than in 2000.

# Road Traffic by Vehicle Type

This section breaks down the latest traffic and 25 year trends in traffic by vehicle type.

Index of vehicle miles by vehicle type, 1994 - 2019

220 Index: 1994 = 100



Vehicle Type	Change 2018 - 2019	Change 1994 - 2019
Vans (Light Commercial Vehicles)	2.0%	106.2%
Cars & Taxis	2.2%	29.8%
Motorcycles	-1.1%	26.8%
Lorries (Heavy Goods Vehicles)	0.3%	12.8%
Buses & Coaches	-2.2%	-16.1%

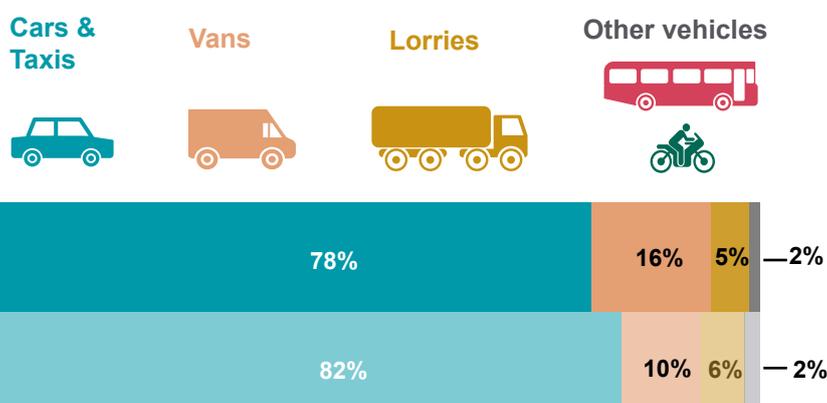
## In the 25 years between 1994 and 2019:

- ▶ **Van traffic** has seen the fastest growth (in percentage terms) of any motor vehicle, more than doubling to reach a record high of 55.5 billion vehicle miles. In the last few years there has been a slight slowdown in growth, with the latest year-on-year change increasing by 2.0%.
- ▶ Distance travelled by **cars and taxis** increased by 29.8% to 278.2 billion vehicle miles. This figure is a new record high.
- ▶ **Lorry** traffic increased by 12.8% to 17.4 billion vehicle miles. Lorry traffic still remains below the peak seen in the mid 2000s
- ▶ **Bus and coach traffic** saw the largest decrease of any vehicle type, falling by 16.1% to 2.4 billion vehicle miles.
- ▶ **Motorcycle** traffic increased by 26.8%, however the latest year traffic (3.0 billion vehicle miles) is below the peak seen in 2003 by 14%.

## Cars and taxis remain the dominant vehicle type:

Since 1994, cars have accounted for around four-fifths of all motor vehicle traffic and continue to be the main contributor to changes in overall motor vehicle traffic.

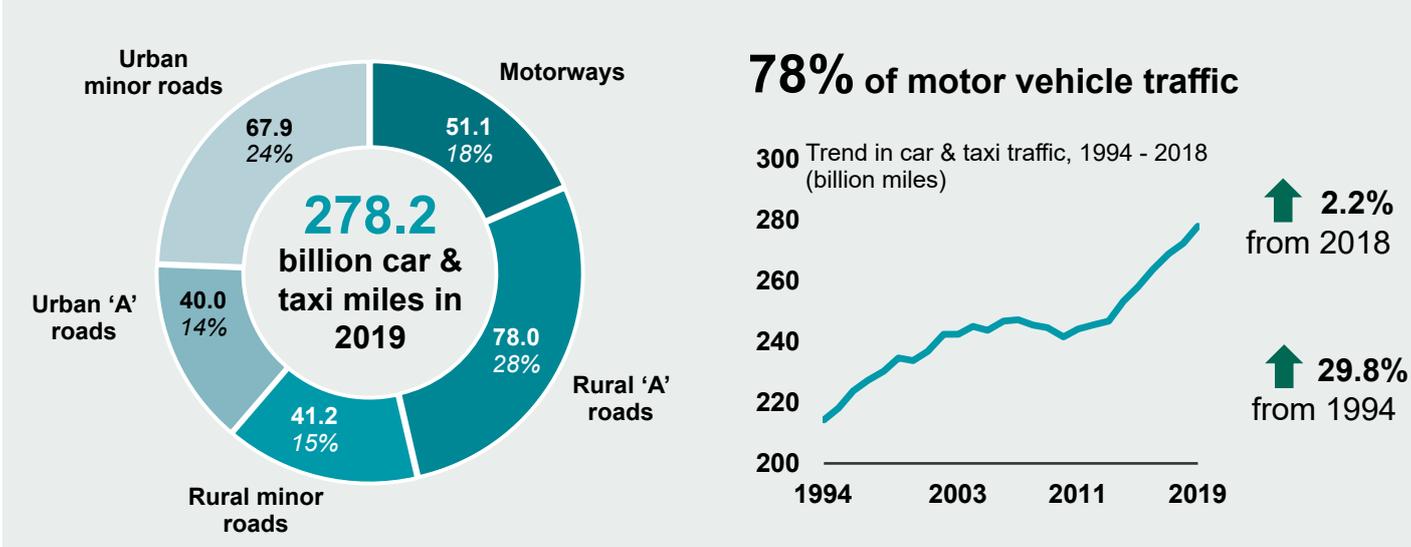
However, vans have become more important over the last 25 years, accounting for 16% of all motor vehicle traffic in 2019 compared to 10% in 1994.



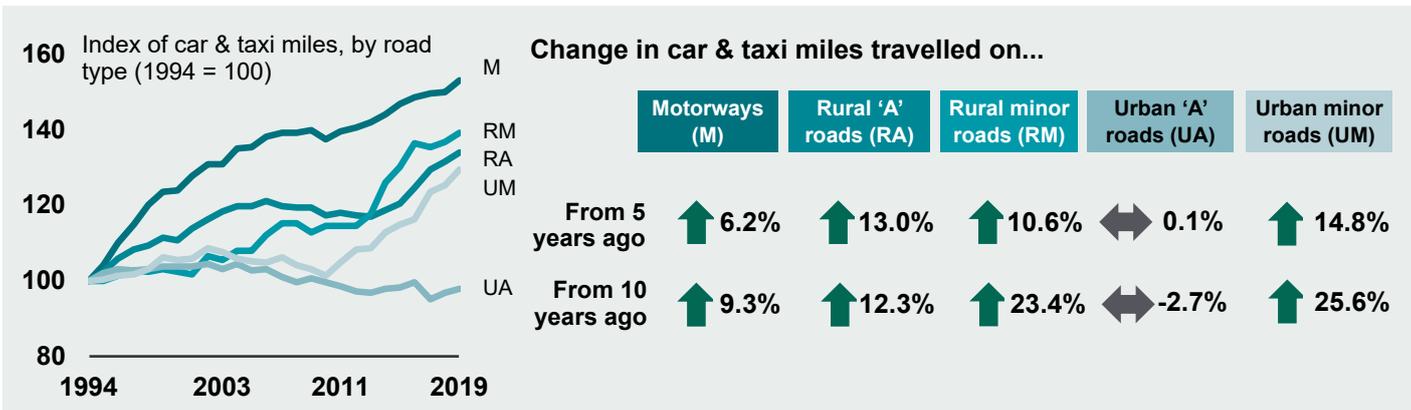
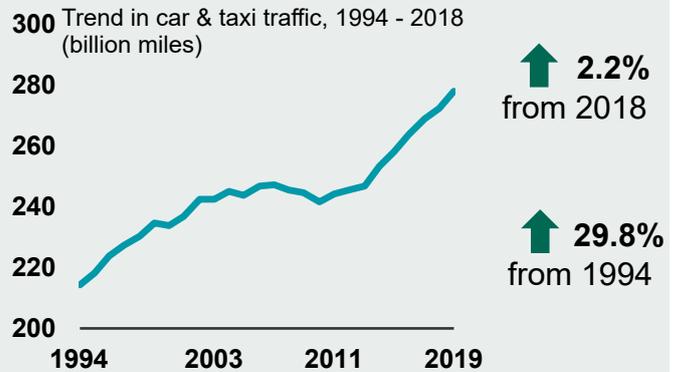


# Cars & taxis

Compared with 2018, car and taxi traffic in Great Britain increased by 2.2% to 278.2 billion vehicle miles in 2019.



## 78% of motor vehicle traffic



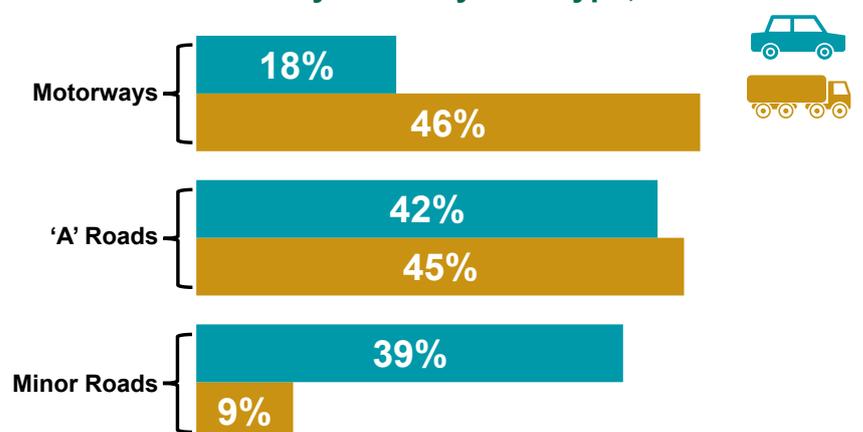
Car traffic increased on all road types between 2018 and 2019 except for Urban 'A' Roads, which remained stable compared to the previous year.

The fastest growth in car traffic (in percentage terms) over the last ten years has occurred on urban minor roads, whereas there has been little change on urban 'A' roads during this period.

Over the longer term, car traffic has shown the most marked increase on motorways, rising by 53% between 1994 and 2019, and showing only a small and brief dip during the 2008 recession.

The distribution of car miles travelled across the different road types was relatively even compared to the distribution of lorries which are less prevalent on minor roads.

## Share of car and lorry traffic by road type, 2019



## Trends in car use

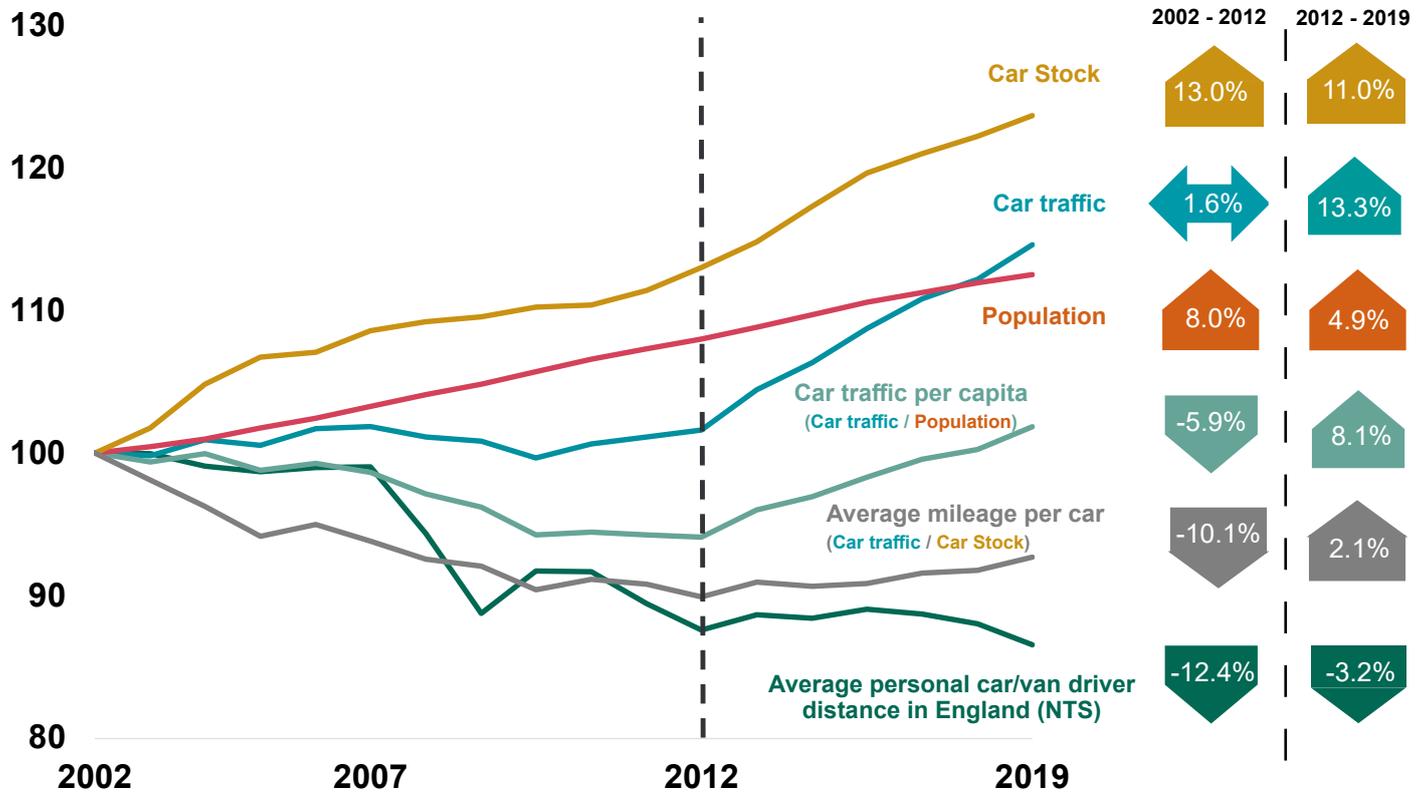
Different trends in car traffic have been seen before and after 2012. Between 2002 and 2012, changes in car traffic reflected a balance between a rise in population and a falling average personal car/van driver distance, as reported by the National Travel Survey (NTS).

Over the same period, car stock rose rapidly; more quickly than car traffic. Household car/van ownership rates showed little change, but the number of households grew by 10%, driving the growth in vehicle numbers.

Taken together this suggests that, while personal access to cars remained similar between 2002 and 2012, people drove their cars fewer miles. Dividing car traffic by the number of cars suggests that annual mileage per car fell from around 9,400 miles to 8,500 over this period.

See pages [33-34](#) and the further information box below for possible drivers of these trends.

### Personal car travel, car stock and car traffic in Great Britain, 2002-2019



Between 2012 and 2019, growth in car traffic outstripped population growth, indicating an increase in average car driver distance (car traffic per capita grew by 8.1% in this time period).

In contrast, car traffic and car stock grew at similar rates between 2012 and 2019. Leading to the previously seen fall in mileage per car to slow down (increasing by 2.1% in the seven years since 2012). This period saw a marked fall in fuel retail prices (of over 10 pence per litre for petrol and diesel), which may have influenced how often or how far car owners travelled by car.

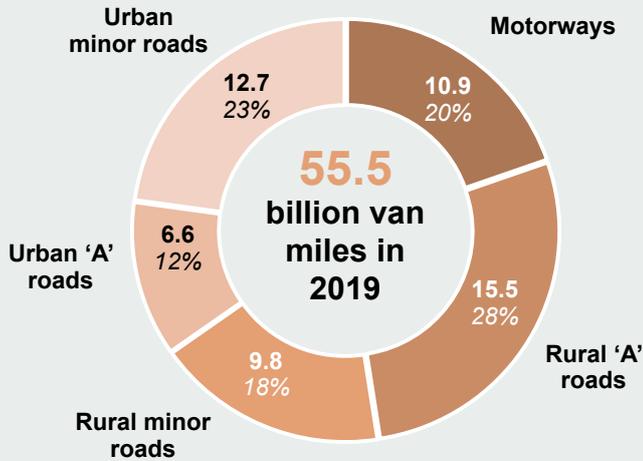
### Further information

Figures on car stocks are sourced from [Vehicles Statistics](#), personal travel from the [National Travel Survey](#), population from the [Office for National Statistics](#), fuel price data from the [Department for Business, Energy & Industrial Strategy](#) and household numbers from the [Ministry of Housing, Communities & Local Government](#). Further discussion of factors influencing trends in travel can be found in the DfT reports '[Understanding the drivers of road travel](#)' and '[Road use statistics](#)'.



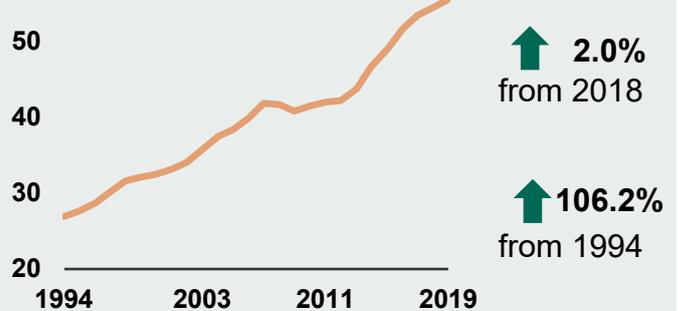
# Vans (Light Commercial Vehicles)

Van traffic grew 2.0% between 2018 and 2019 to reach a record high of 55.5 billion vehicle miles.

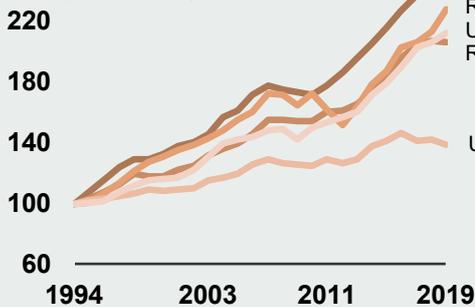


## 16% of motor vehicle traffic

Trend in van traffic, 1994 - 2019 (billion miles)



Index of van miles, by road type (1994 = 100)



## Change in van miles travelled on...

	Motorways (M)	Rural 'A' roads (RA)	Rural minor roads (RM)	Urban 'A' roads (UA)	Urban minor roads (UM)
From 5 years ago	↑ 22.0%	↑ 18.1%	↑ 27.7%	↑ 0.8%	↑ 23.5%
From 10 years ago	↑ 44.6%	↑ 33.9%	↑ 38.8%	↑ 10.4%	↑ 49.2%

Van traffic rose to new record highs on motorways and minor road types between 2018 and 2019. Motorways and rural 'A' roads carried almost half of all van traffic in 2019.

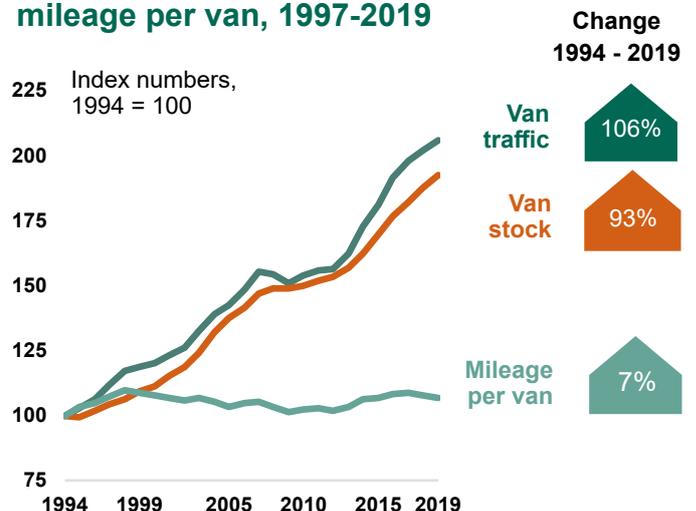
The rapid rise in van traffic over the last 25 years means that van traffic now makes up around 16% of total traffic, compared to 10% in 1994.

## Why is van traffic rising so quickly?

Alongside the 106% increase in van miles between 1994 and 2019, the number of licensed vans rose 93% over the same period, from 2.1 to 4.1 million.

In contrast to the trend seen in average car mileage, the average annual mileage per van in Great Britain (estimated from van vehicle miles divided by van stock) has remained broadly stable, at around 13,000 miles per year.

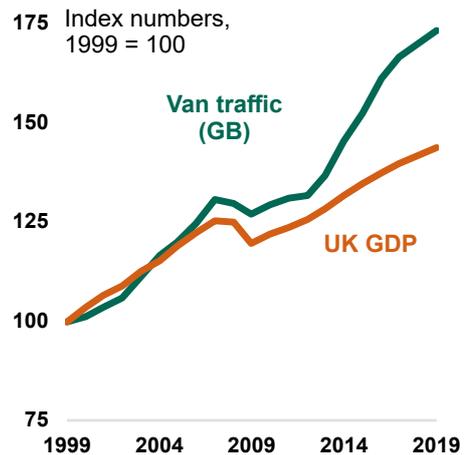
## Chart: Indices of Van Stock, traffic and mileage per van, 1997-2019



Over the last twenty years, trends in van traffic have followed changes in the economy closely. This is perhaps to be expected given the mainly commercial use of vans, and the variety of uses to which they are put.

Gross domestic product (GDP) resumed growth after the 2008 recession, but van traffic grew even faster than GDP between 2012 and 2019. This additional growth may be linked to a shift in the way consumers and businesses operate.

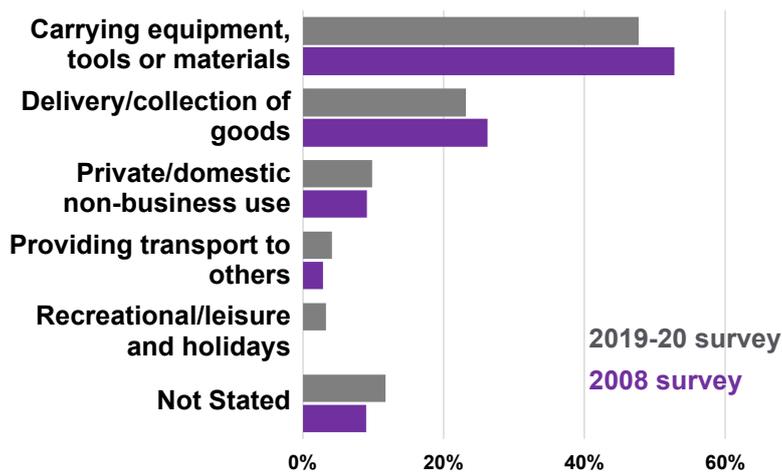
### Indices of Gross Domestic Product (GDP) and van traffic, 1999-2019



## What are vans being used for?

Provisional estimates from the 2019-20 Van Statistics survey show that across all van owners, the primary activity of the majority of Great Britain’s annual van mileage (48%) was for ‘carrying equipment, tools or materials’. ‘Delivery/collection of goods’ made up the next most mileage at 23%, followed by ‘private/domestic non-business’ use at 10%.

### Van Mileage by Primary Usage, 2008 and 2019-20 (2008 figures cover England only)



These 2019-20 figures are broadly similar to the previous study of van ownership in England in 2008. In the 2008 study, 53% of mileage was attributed to ‘carrying equipment’, 26% to ‘delivery/collection’ and 9% to ‘private/domestic’ use.

The 2019-20 study saw the introduction of a new category – ‘recreational/ leisure and holidays’, which made up 3% of all van mileage in 2019-20.

The provisional results show that the majority of owners (60%) stated that their previous vehicle was a similar type of van. Across all van owners, 17% had previously kept a smaller van or car; 9% had previously kept a larger van or lorry; and 10% of all responders didn’t have a need before their current vehicle, meaning that this was their first van purchase. Private keepers, however, were more likely to not previously have had a need for a van in the past (16%), or had previously kept a car or smaller van (30%).

### Van Definition



**Light Commercial Vehicle (LCV; a.k.a. van)** Goods vehicles not exceeding 3.5 tonnes gross vehicle weight

### Sources and further information

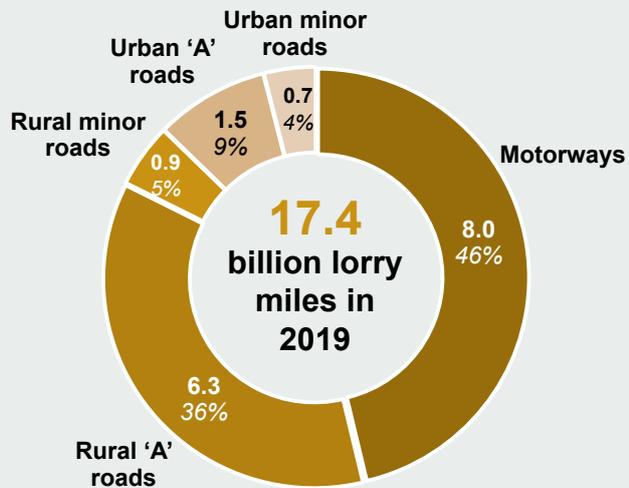
**Gross Domestic Product** and **Internet usage** data are sourced from the [Office for National Statistics](#).

**Provisional Van Statistics 2019-2020** are sourced from a DfT statistical release of [Van Activity in Great Britain](#). A final report will be produced later in 2020-21.



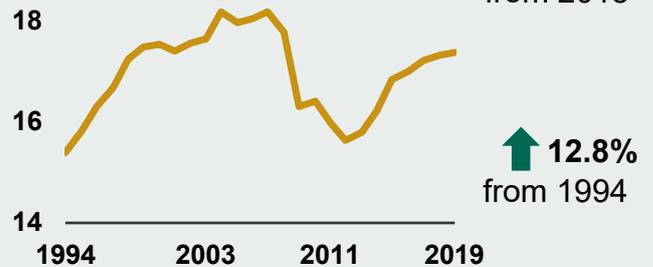
# Lorries (Heavy Goods Vehicles)

In 2019 lorries travelled 17.4 billion vehicle miles, remaining broadly stable (increasing slightly by 0.3%) compared with 2018.

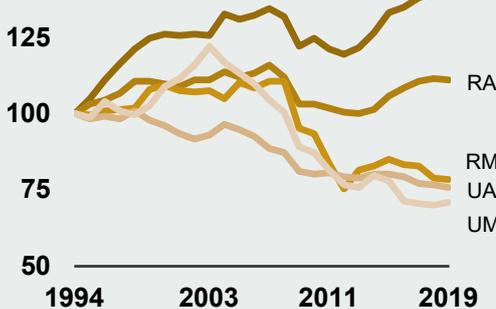


## 5% of motor vehicle traffic

20 Trend in lorry traffic, 1994 - 2019 (billion miles)



150 Index of lorry miles, by road type (1994 = 100)



Change in lorry miles travelled on...

	Motorways (M)	Rural 'A' roads (RA)	Rural minor roads (RM)	Urban 'A' roads (UA)	Urban minor roads (UM)
From 5 years ago	↑ 11.2%	↑ 9.8%	↓ -5.1%	↓ -5.6%	↓ -11.2%
From 10 years ago	↑ 15.4%	↑ 7.8%	↓ -17.3%	↓ -6.6%	↓ -20.5%

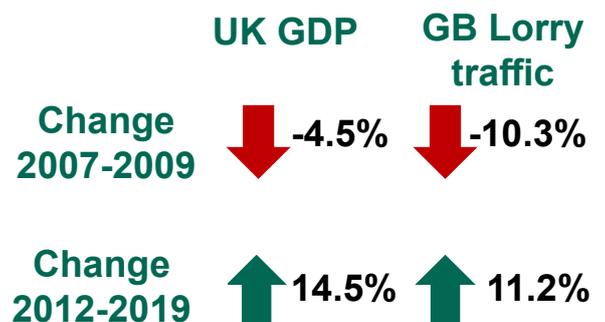
Lorry traffic remained broadly stable (increasing slightly by 0.3%) between 2018 and 2019.

Lorry traffic increased on motorways in 2019, was broadly stable on rural roads and decreased on all other road types, continuing the general trend in recent years. Lorry traffic on motorways reached a new peak in 2019, of 8.0 billion vehicle miles. Motorways carry 46% of all lorry traffic in Great Britain; together, motorways and rural 'A' roads carry 82% of lorry traffic.

## Factors affecting trends in Lorry traffic

In recent years, lorry traffic appears to be closely correlated with changes in the economy.

This can be seen in general terms by comparing the index of Gross Domestic Product (GDP) with lorry traffic (right). Both GDP and lorry traffic fell sharply during the 2008 recession, and have grown sharply since 2012.



## Longer term trends

A key factor in understanding trends in lorry traffic over the longer term is that lorries comprise of a wide range of differently sized vehicles, able to carry differing quantities of goods.

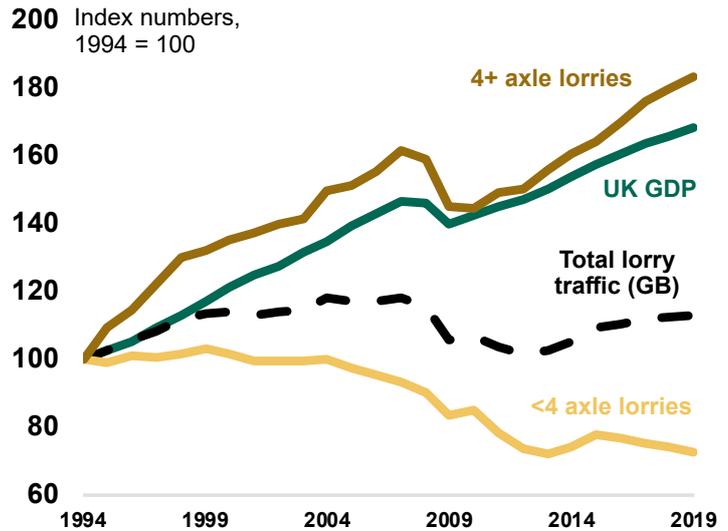
Between 1994 and 2019 trends in lorry traffic differed markedly between different vehicle sizes. Traffic of lorries with four or more axles was 83% higher in 2019 than 25 years ago, whereas for lorries with less than four axles it had fallen by 28%.

The statistics from DfT's annual freight survey show a similar trend, presenting freight transport by gross vehicle weight. Between 1994 and 2019, heavier lorries (weighing >33 tonnes) moved an increasing proportion of goods by road (77% in 2019 compared to 60% in 1994).

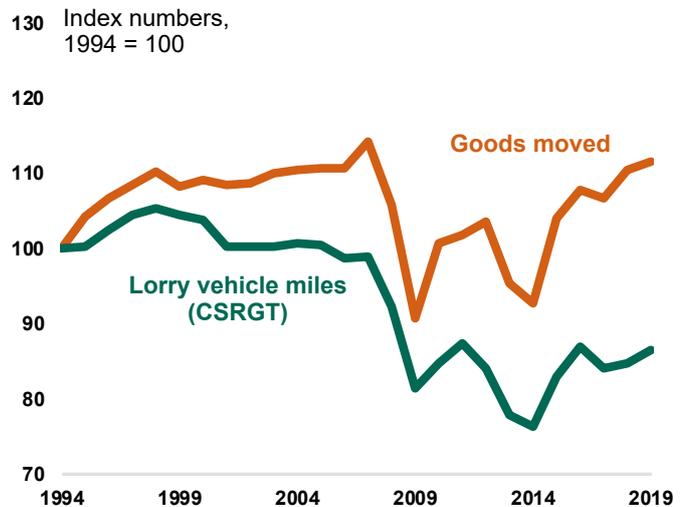
As a result, road freight in lorries is now more concentrated in heavier lorries than in the past, and fewer vehicle miles are being driven to transport the same weight of goods.

It could also partly explain the different trends in lorry traffic by road types. Freight is likely moved more efficiently by larger lorries on major roads, than on narrow or busy minor and urban roads. It is also possible that vans are being used to perform work previously carried out by smaller lorries (see page 9).

Indices of Gross Domestic Product (GDP) and lorry traffic, 1994-2019



Goods moved and vehicle miles travelled by GB registered lorries in the UK, 1994 - 2019



### Lorry Definition



**Heavy Goods Vehicle (HGV; a.k.a. lorry)** Goods vehicles over 3.5 tonnes gross vehicle weight, including both articulated and rigid body types.

### Goods lifted and goods moved

**Goods lifted** refers to the total weight of freight transported in a load, measured in **tonnes**.

**Goods moved** is defined as the weight of goods in each load multiplied by the distance the load is transported, measured in **tonne miles** or **tonne kilometres**.

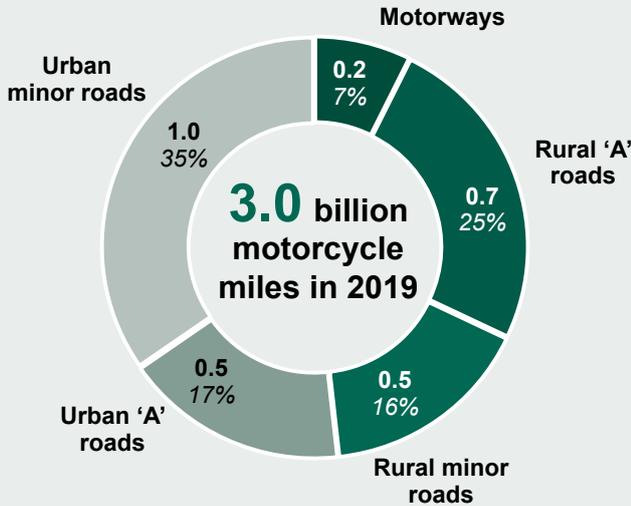
### Data Source

The figures for HGV activity on this page come from DfT's [Continuing Survey of Road Goods Transport](#) (CSRGT) for British registered HGVs. It provides information on weight of goods lifted and moved by vehicle type and commodity type.



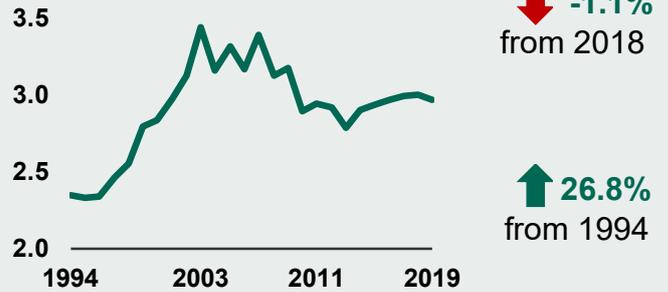
# Motorcycles & scooters

Motorcycle and scooter (excluding e-scooter) traffic fell by 1.1% in 2019 compared to the previous year. Motorcycle traffic has declined over the last ten years, from a peak in the mid-2000s.

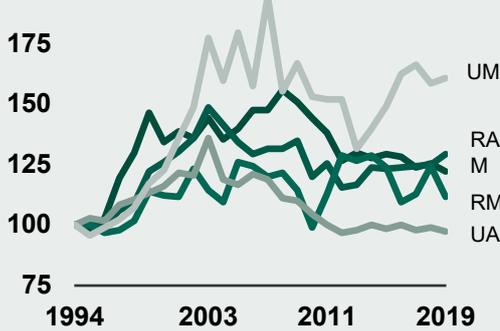


## 0.8% of motor vehicle traffic

4.0 Trend in motorcycle and scooter traffic, 1994 - 2019 (billion miles)



Index of motorcycle miles, by road type (1994 = 100)

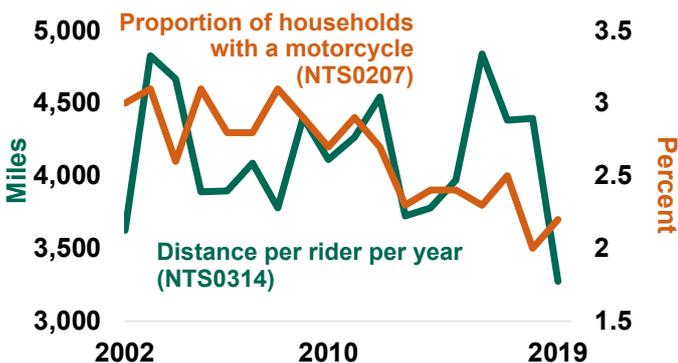


## Change in motorcycle miles travelled on...

	Motorways (M)	Rural 'A' roads (RA)	Rural minor roads (RM)	Urban 'A' roads (UA)	Urban minor roads (UM)
From 5 years ago	↓ -4.5%	↑ 4.4%	↓ -13.3%	↓ -2.9%	↑ 15.2%
From 10 years ago	↓ -19.2%	↔ -4.3%	↔ -2.7%	↓ -11.7%	↔ -3.5%

Motorcycle and scooter traffic trends have fluctuated across the different road types in recent years. Urban minor roads have seen a 15% increase over the last five years, in contrast to a decrease on motorways and on rural minor roads.

Results from the National Travel Survey (NTS) indicate that the average distance ridden per motorcyclist in England has been fairly stable over the last decade, although it has had year-to-year variability.



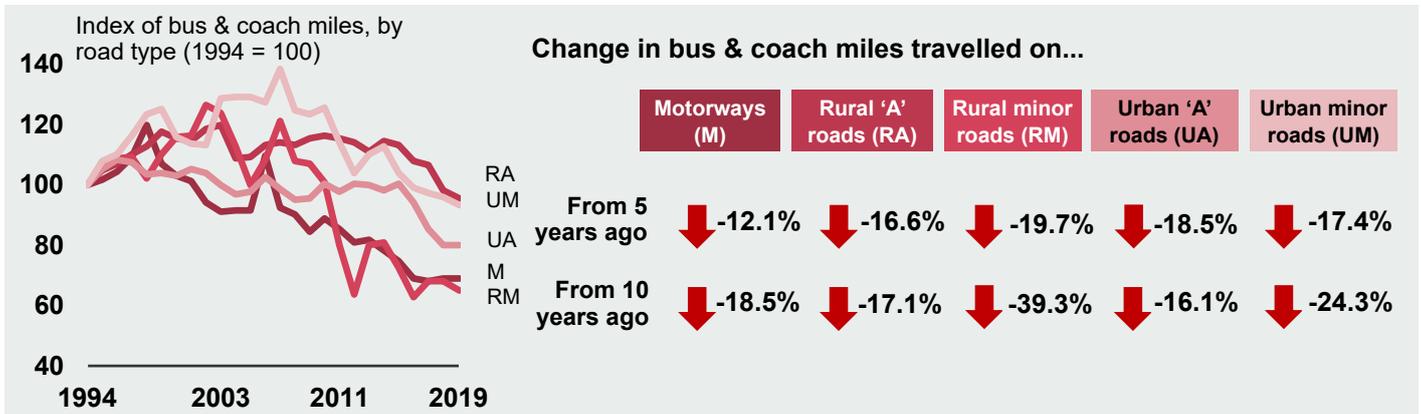
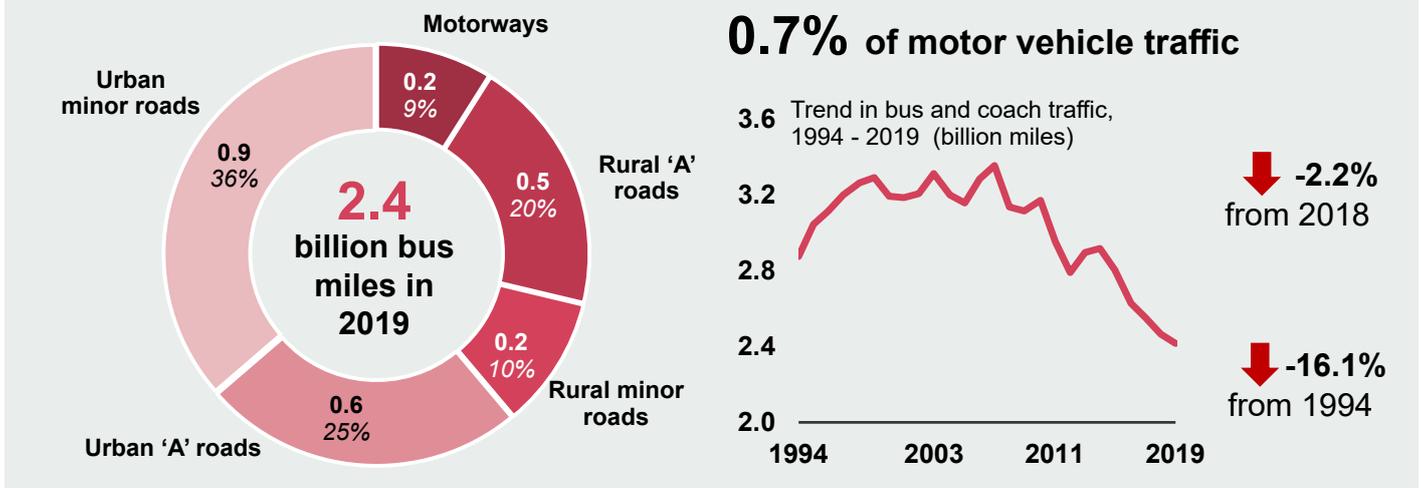
However, there was a downward trend in the proportion of households having access to a motorbike over the period, dropping from 3% in 2002 to 2.2% in 2019.

In other words, the distance ridden by those who ride has changed little, but it appears that fewer people are riding motorbikes.



## Buses & coaches

Bus and coach traffic fell by 2.2% between 2018 and 2019 - the largest decrease of any vehicle type. This is similar to the trend seen in recent years.



### Local bus mileage and passenger mileage

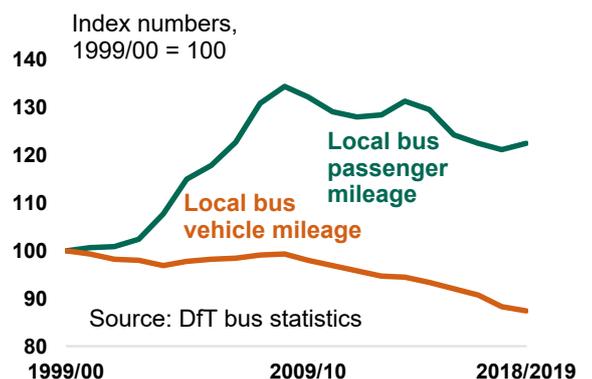
Changes in local bus services have a strong influence on the overall trend in bus and coach traffic, because local bus service mileage makes up a large proportion of the total (approximately 60%).

DfT bus statistics show that between 1999/00 and 2018/19, mileage of local bus services in Great Britain fell by around 13%. However, over the same period bus passenger miles rose by nearly one-quarter, from 13.9 billion in 1999/00 to 17.0 billion in 2018/19.

The difference in trend between vehicle mileage and passenger mileage reflects an increase in the average number of passengers travelling on each bus, from 8.4 passengers per bus in 1999/00 to 11.7 passengers per bus in 2018/19.

The large number of passengers per bus (in comparison to occupancy of cars, motorcycles and pedal cycles) means that, although bus and coach vehicle mileage is a similar level as motorcycle and pedal cycles miles, it accounts for an order of magnitude more trips by people.

### Local bus vehicle mileage and passenger mileage, Great Britain 1999/00 - 2018/19



## Long term trends: by road type

The majority (61%) of bus and coach miles in Great Britain are driven on urban roads, near to densely populated areas. This road type has, however, seen large decreases in bus traffic over the last decade.

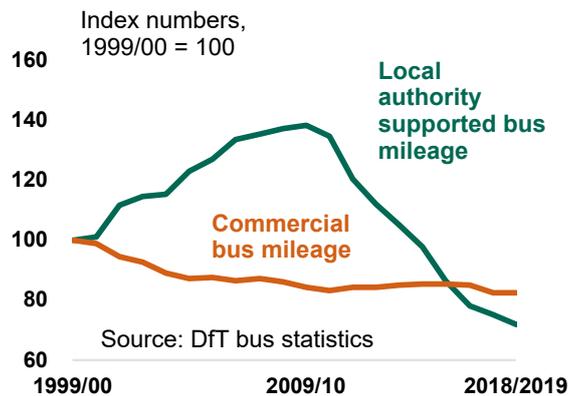
Since 2009, bus traffic has fallen 39% and 24% on rural and urban minor roads respectively. Bus traffic on rural and urban 'A' roads has also fallen over the same period but by a lesser amount (17% and 16% respectively).

The fall observed in bus and coach mileage over the last decade may partly be explained by the trends in local bus service mileage.

Local bus mileage in Great Britain fell 11% in the ten years since 2009/10. This was due to a decrease of 48% in local authority supported bus mileage in Great Britain outside London over the same period.

In contrast, commercial bus mileage has been broadly stable since 2010, but these services may be more likely to use 'A' roads, causing a shift in mileage from minor to 'A' roads.

**Supported and commercial bus mileage, Great Britain excluding London 1999/00 - 2018/19**



## DfT bus statistics

In addition to the estimates of bus and coach mileage published here, DfT also publishes statistics providing a wide range of information about [local bus services](#), mainly based on data from bus operators.

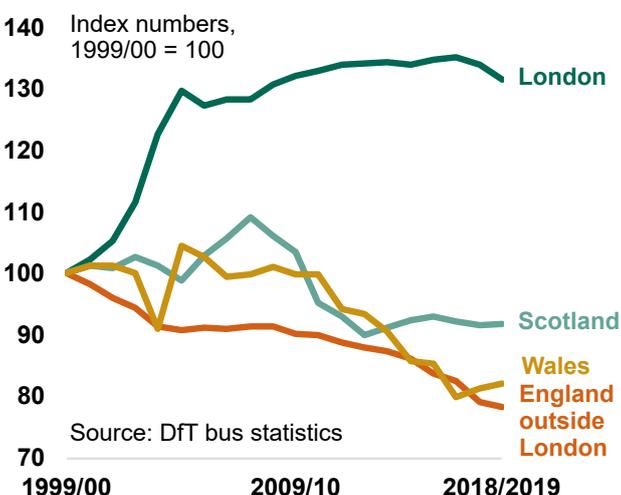
The bus statistics provide contextual information to help interpret the bus and coach traffic estimates.

Mileage estimates are available from both sources, and whilst they are not exactly comparable, it is estimated that local bus mileage makes up roughly three-fifths (1.5 billion vehicle miles) of all bus and coach traffic.

## Long term trends: by location

Local bus services mileage trends since 1999/00 have not been consistent across the country.

**Local bus vehicle mileage by country and London / non-London, 1999/00 - 2018/19**



Local bus mileage in London rose rapidly until 2004/5, since then it has shown smaller year-on-year changes.

In the rest of Great Britain local bus mileage has seen an overall downward trend since 1999/00. The declines in Scotland and Wales have not been smooth, falling more rapidly since 2010, before stabilising in more recent years.

## Vehicle definition

Buses and coaches are defined as vehicles designed to transport people, which have a van chassis or larger, but excluding minibuses.

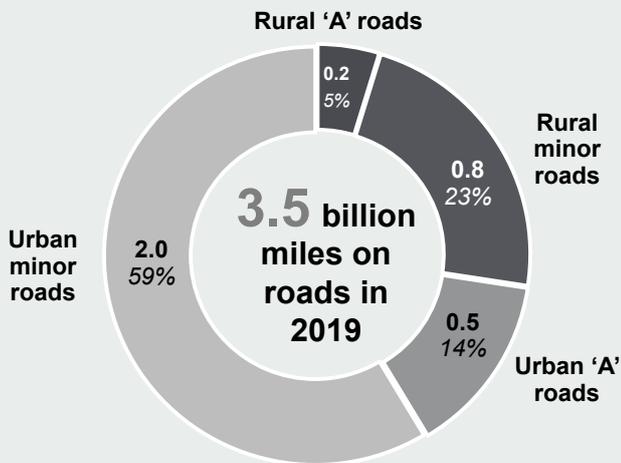
DfT road traffic statistics combine mileage of both public and private vehicles, because public and private vehicles cannot be distinguished in traffic counting surveys.





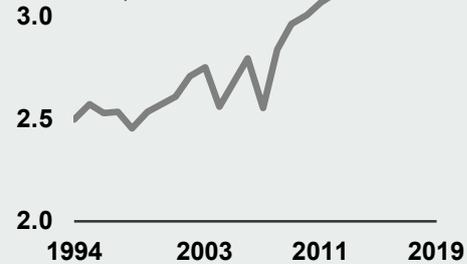
# Pedal cycles

**Pedal cycles travelled 3.5 billion miles on roads\* in 2019, 3.4% further than in the previous year, and over a third more than twenty five years ago.**



## 1% of all traffic on roads

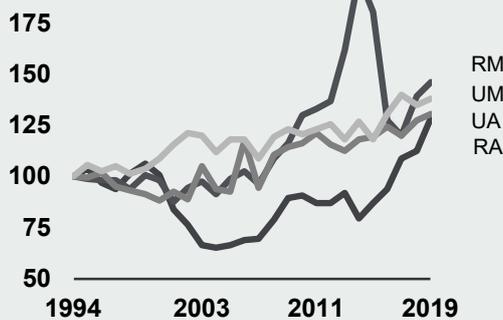
3.5 Trend in cycle traffic on, and adjacent to roads, 1994 - 2019 (billion miles)



↑ 3.4% from 2018

↑ 38.3% from 1994

200 Index of cycling miles on roads, by road type (1994 = 100)



## Change in cycling miles travelled on...

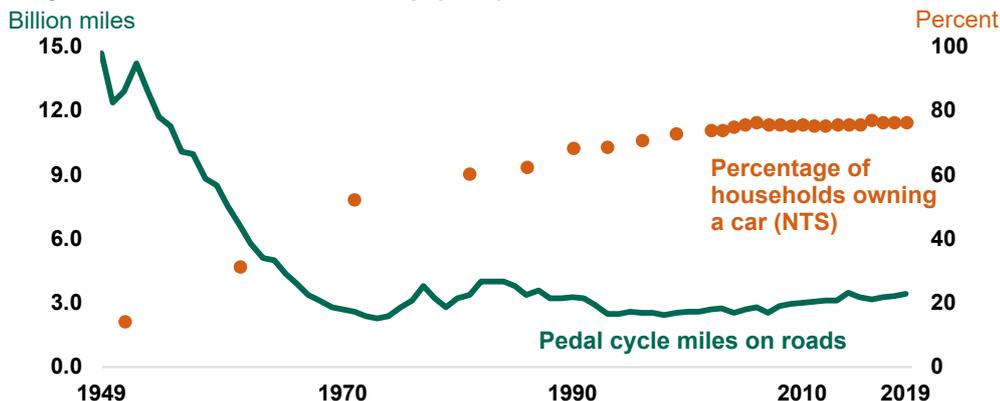
	Rural 'A' roads (RA)	Rural minor roads (RM)	Urban 'A' roads (UA)	Urban minor roads (UM)
From 5 years ago	↑ 61.9%	↓ -26.2%	↑ 10.4%	↑ 8.9%
From 10 years ago	↑ 43.4%	↑ 25.8%	↑ 14.3%	↑ 11.9%

## Long-term trends in cycle traffic

Year-to-year changes in cycle traffic can be volatile due to factors such as the weather, so long-term changes are more reliable indicators of underlying trends.

In the last 25 years, cycling mileage on roads has increased by 38.3%. Cycle mileage on roads in 2019 was only around one quarter of the 14.7 billion miles ridden in 1949. Cycle traffic fell most quickly during the 1950s and 1960s, coinciding with a large rise in car ownership.

## Pedal cycle traffic and car ownership (NTS) in Great Britain, 1949 - 2019



## \*Cycling on roads

DfT road traffic statistics report activity of cyclists on public highways, and on cycle paths and footpaths adjacent to them.

Cycle activity elsewhere (for example on canal towpaths, byways or bridleways) is not included in road traffic statistics.

Statistics from the [National Travel Survey](#) (NTS) and [Active Lives Survey](#) also provide information on cycling.

## Understanding trends in cycle traffic

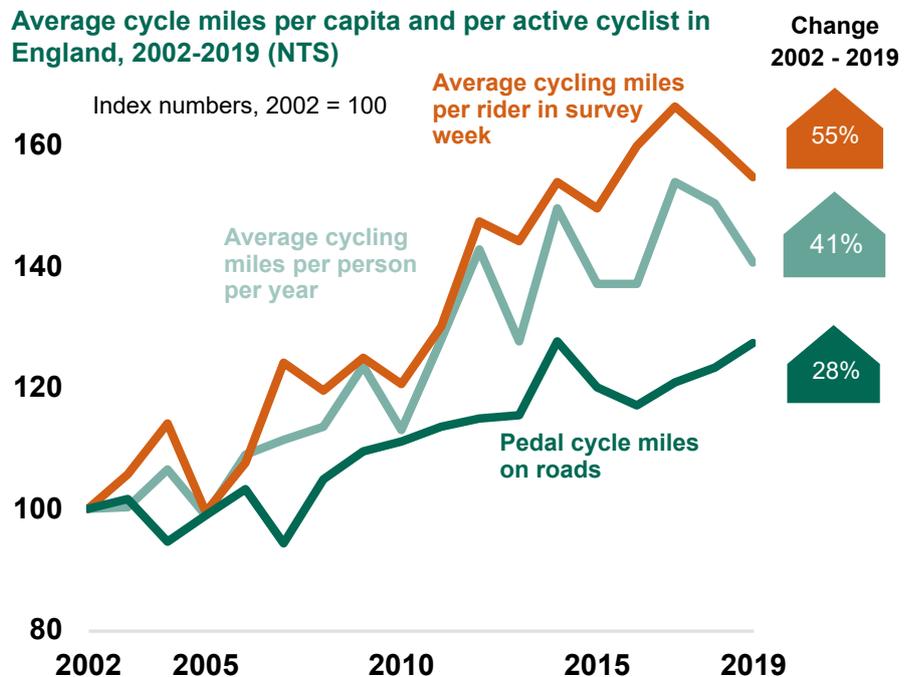
Information on cycling from other sources, such as the National Travel Survey (NTS), provide context for the trends in the estimates of cycle traffic from the road traffic statistics.

Between 2002 and 2019, the latest NTS figures show that average cycle mileage per person per year (including both people who cycle and those who do not) in England rose by 55%, though the trend is somewhat erratic.

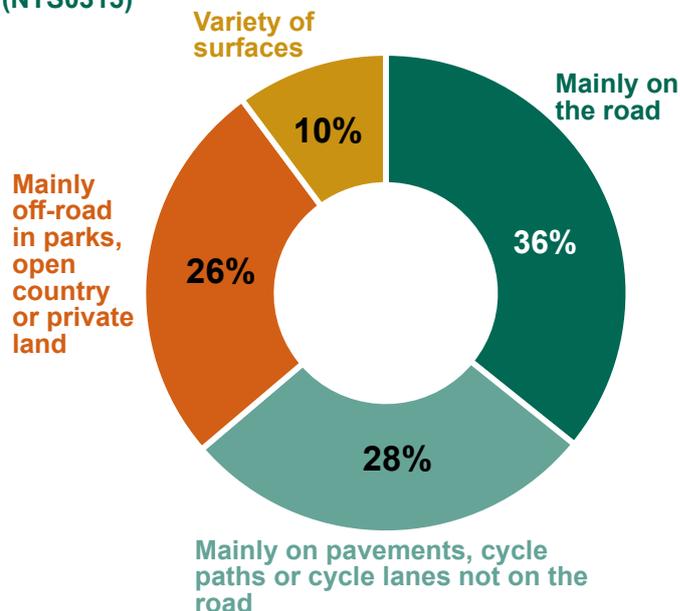
When only considering respondents who cycled at least once during the survey week, the average distance cycled during the week has grown at a similar rate to the whole of England average. This suggests that people who cycle have been cycling further, but that the proportion of the population who cycle has not changed substantially.

Both road traffic estimates and NTS statistics show that cycle traffic has been growing since the 1990s, but the NTS figures suggest higher levels of growth than the road traffic estimates.

Some of this difference could be due to off-road cycling, which is not covered in the traffic statistics data collection. In 2018 (the latest data available), just over one-quarter of NTS respondents reported mainly cycling off-road.



**Main cycling location in the last 12 months, England 2018 (NTS0315)**



### Note on National Travel Survey figures

The number of actively cycling respondents in the National Travel Survey is relatively low, so figures on average cycling miles per capita and per rider are expected to fluctuate from year to year as a result of sampling error.

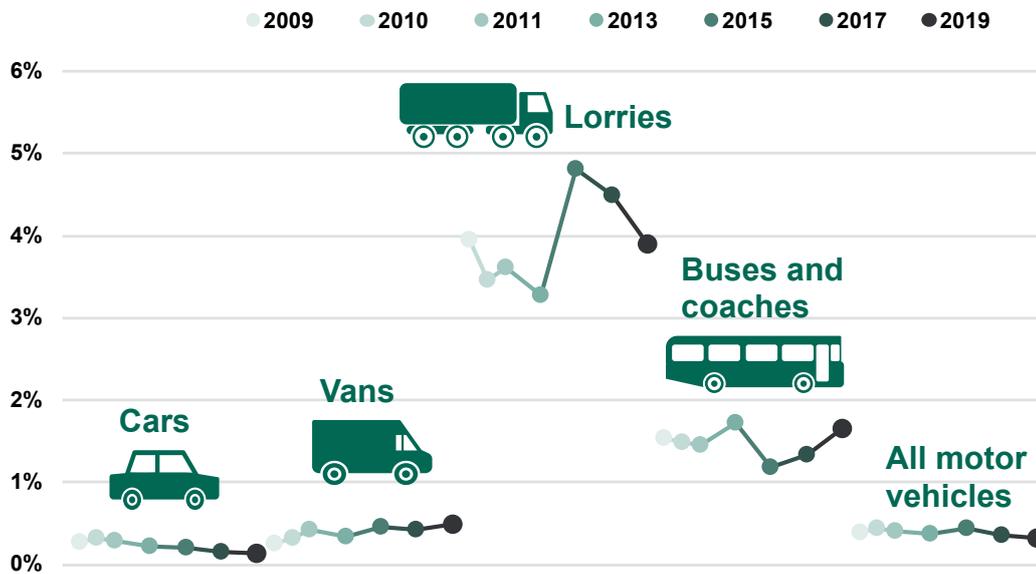
As such, interpretation should focus on long-term trends rather than year-to-year changes.

# Foreign Registered Vehicles

The statistics presented elsewhere in this release include the activity of both British and foreign-registered vehicles in Great Britain. This section discusses the proportion of vehicles in traffic which are registered outside the UK. The latest figures available cover the year 2019. See the 'data source' box for more information.

In 2019, 0.3% of all traffic on British roads was estimated to be accounted for by foreign registered vehicles. By vehicle type, lorry traffic had the highest proportion of foreign registered vehicles at 3.9%, this was a decrease of 0.6 percentage points compared to 2017. Foreign registered lorries cabotage accounted for just over 1% of road freight activity within the UK.

Percentage of foreign vehicles in traffic, by vehicle type



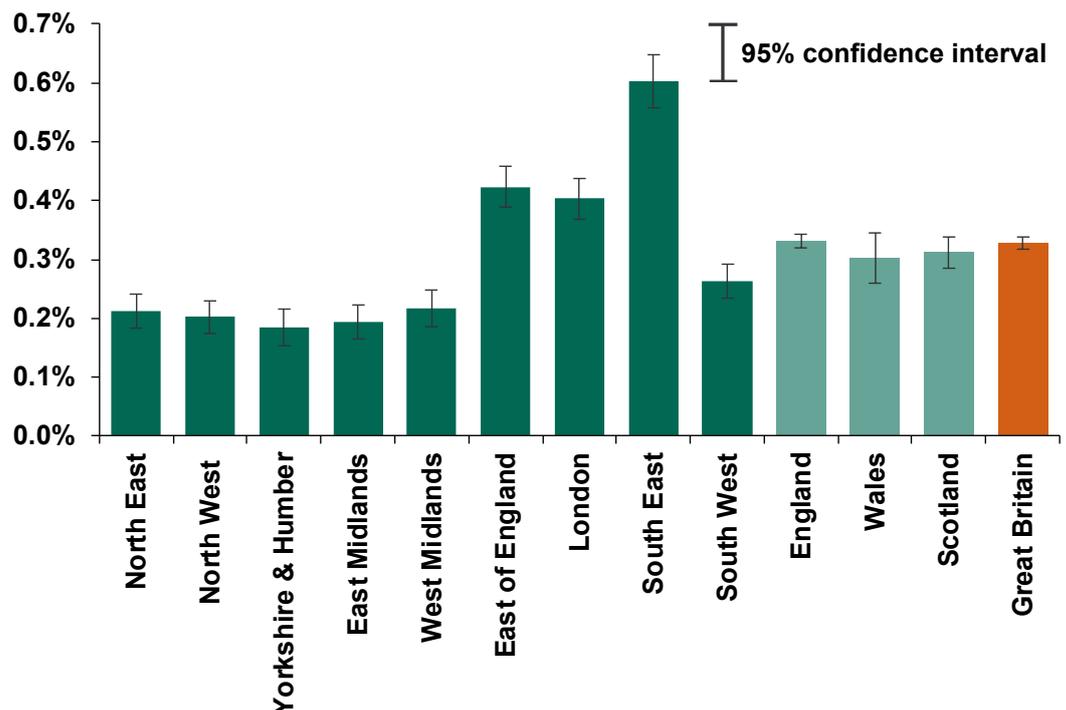
## Data source

Estimates of the proportion of traffic from vehicles which are registered outside of the UK are published on the Department for Transport website every second year.

Every other June, a roadside survey using Automatic Number Plate Recognition cameras captures registration marks of over a million vehicles. Registration marks originating outside the UK, the Isle of Man and the Channel Islands are identified and used to estimate the rate of foreign registered vehicles on Britain's roads.

The South East region had the highest proportion of foreign registered vehicles of any region within Great Britain. This likely reflects that the South East is the region of arrival and departure for many motor vehicles coming from Europe through ports and the channel tunnel.

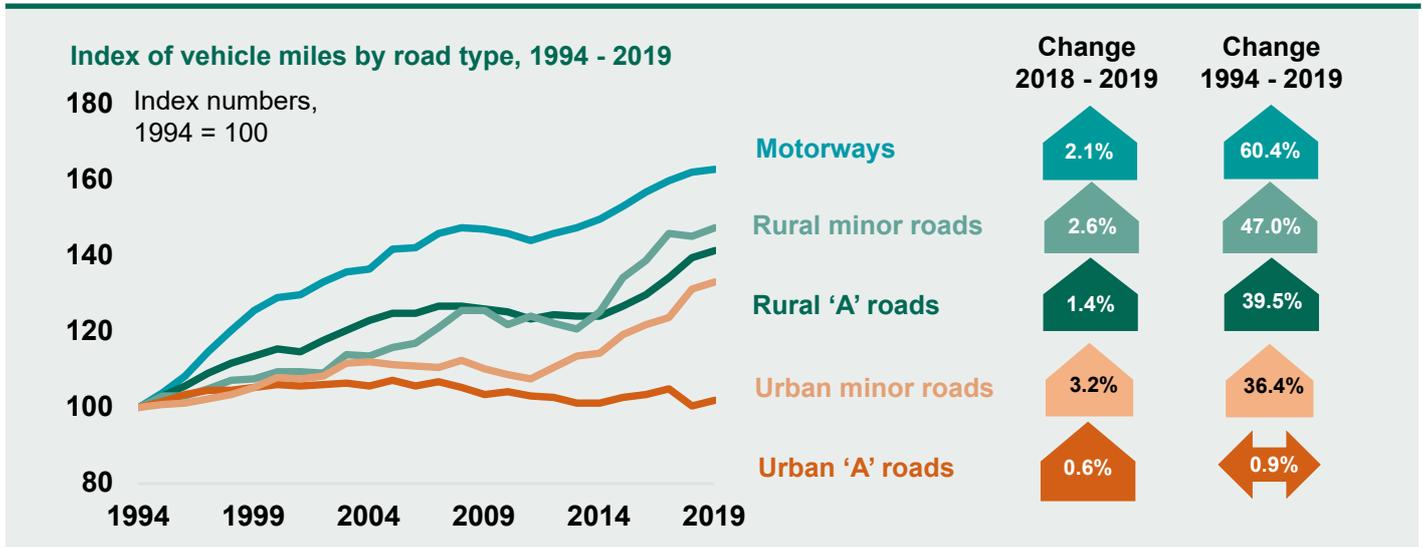
Percentage of foreign vehicles in traffic, by region, 2019



# Traffic by Road Type

This section breaks down the traffic statistics by road type. Figures are presented split by the classification of the road (Motorway, 'A' roads, and Minor roads - 'B', 'C' and unclassified roads), by the urban/rural setting of the road.

## Overview

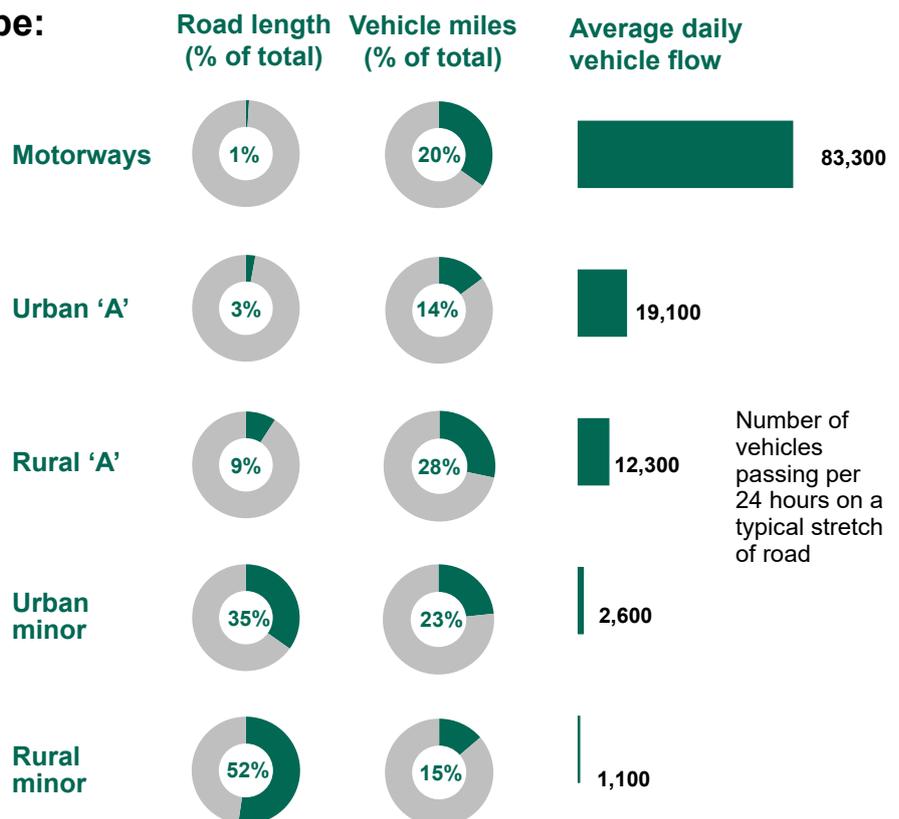


## Share of traffic by road type:

Vehicle activity is unevenly distributed across Great Britain's road network.

In 2019, 62% of the motor vehicle miles travelled were on motorways and 'A' roads, despite comprising only 13% of the road network by length.

On an average day in 2019, 75 times more vehicles travelled along a typical stretch of motorway than a typical stretch of rural minor road ('B' roads, 'C' roads, and unclassified roads).



## Definitions

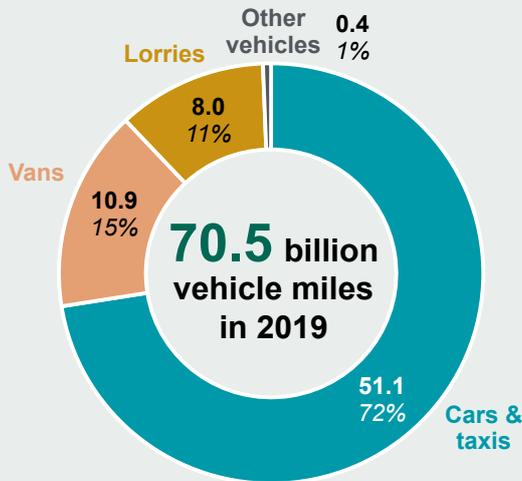
**Rural and Urban:** 'Urban' roads are those within a settlement of 10,000 people or more, following the 2011 Census definition of urban settlements. All other roads are defined as 'rural'. See [here](#).

**Minor and Major:** Major roads include motorways and 'A' roads. Minor roads comprise 'B' roads, 'C' roads, and unclassified roads.



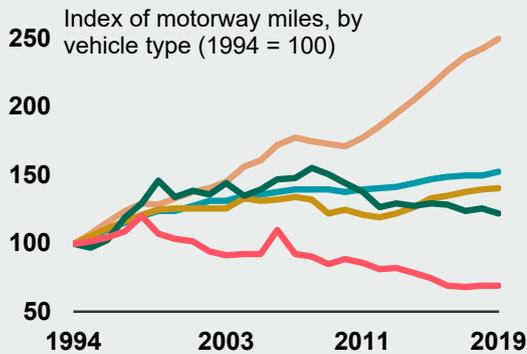
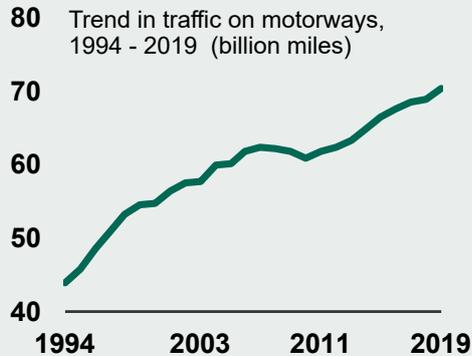
# Motorways

In 2019, 70.5 billion vehicle miles were travelled on Great Britain's motorways, an increase of 2.1% on the 2018 total (69.0 billion vehicle miles).

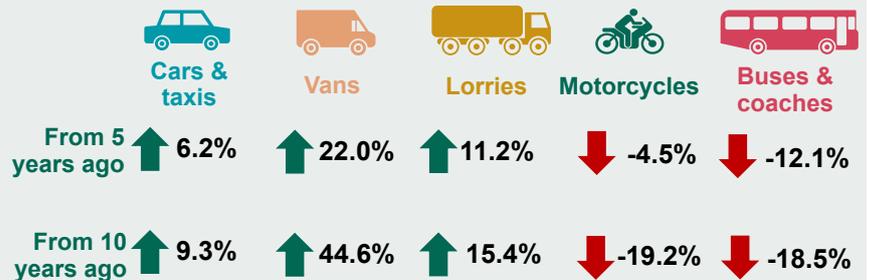


**1%** of road length

**20%** of vehicle miles

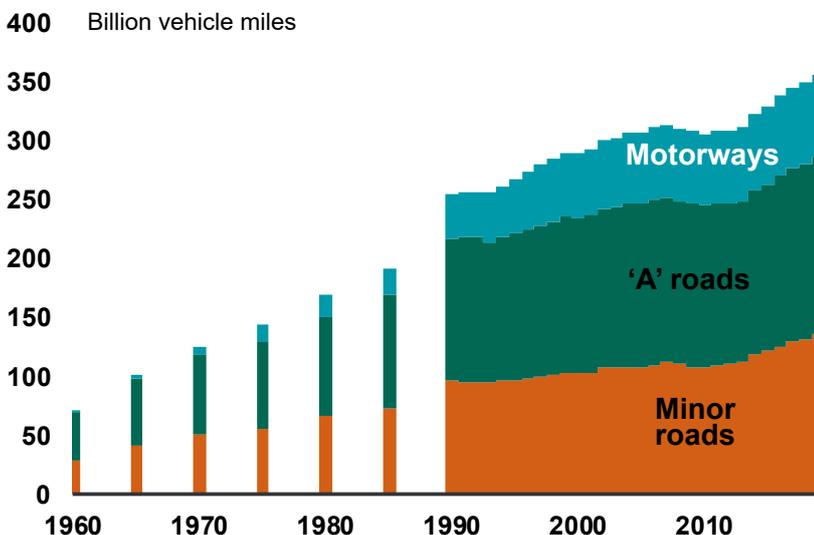


### Change in motorway miles travelled by...



The overall increase in motorway traffic over the last decade comprises of differing trends by vehicle type. Van traffic has grown by 45%, whilst motorcycle and bus and coach traffic have both fallen. Motorways are vital for the movement of freight, carrying almost half (46.3%) of all lorry traffic in 2019, compared to one-fifth of car traffic.

### Motor vehicle traffic by road type, 1960 to 2019 (TRA0102)



The proportion of total vehicle miles driven on motorways has increased over time, from 0.6% in 1960 to 20% in 2019. This has resulted from motorways increasing in length from 95 miles in 1960 to 2,320 miles in 2019, as well as an increase in average vehicle flow over the same period from 11,500 to 83,300 vehicles per day.



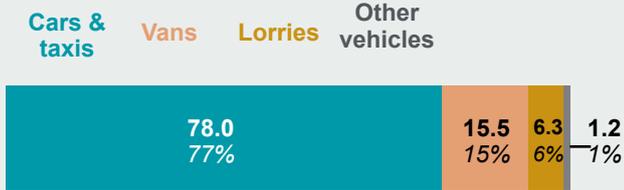
# Rural roads

Traffic on all rural roads has increased by 1.8% between 2018 and 2019.

## Rural 'A' roads

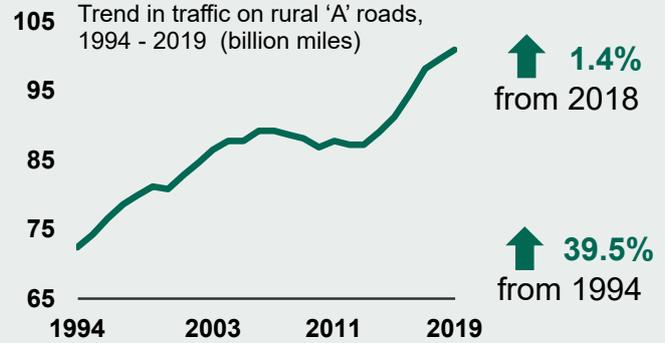
**101.0** billion vehicle miles in 2019

of which...

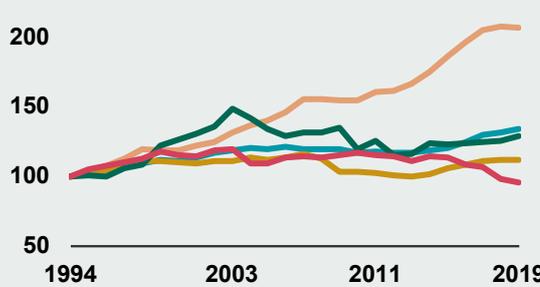


**9%** of road length

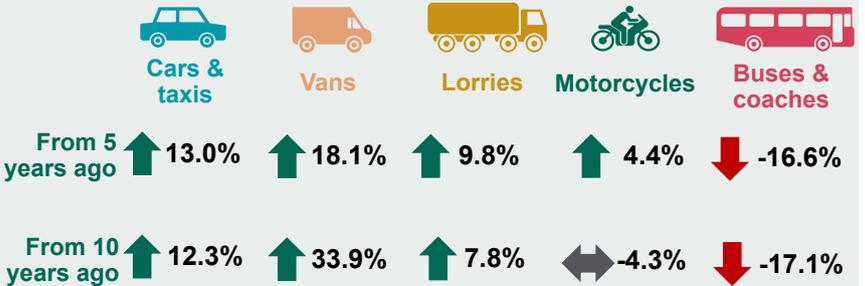
**28%** of vehicle miles



Index of rural 'A' road miles, by vehicle type (1994 = 100)



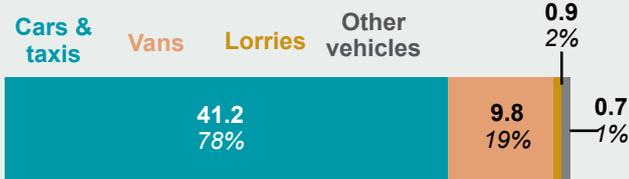
Change in rural 'A' road miles travelled by...



## Rural minor roads

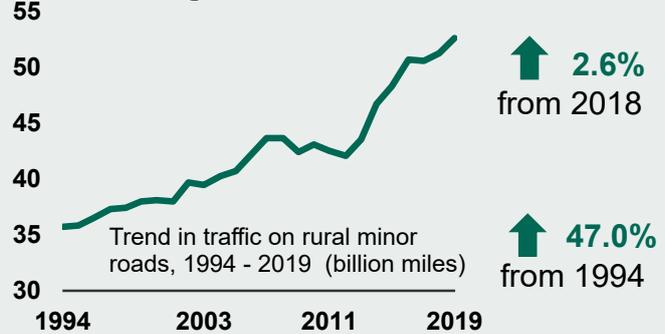
**52.6** billion vehicle miles in 2019

of which...

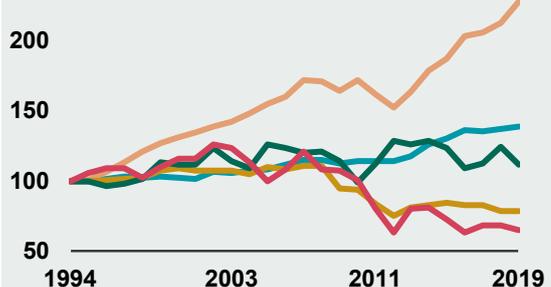


**52%** of road length

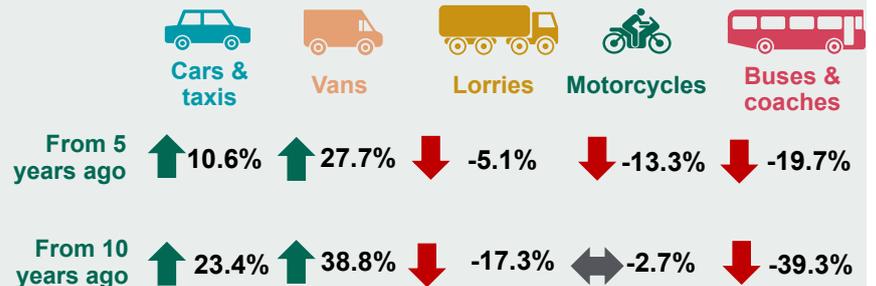
**15%** of vehicle miles



Index of rural minor road miles, by vehicle type (1994 = 100)



Change in rural minor road miles travelled by...





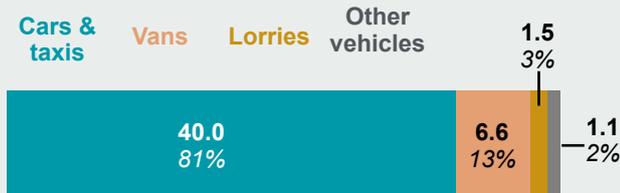
# Urban roads

Traffic on all urban roads has increased by 2.2% between 2018 and 2019.

## Urban 'A' roads

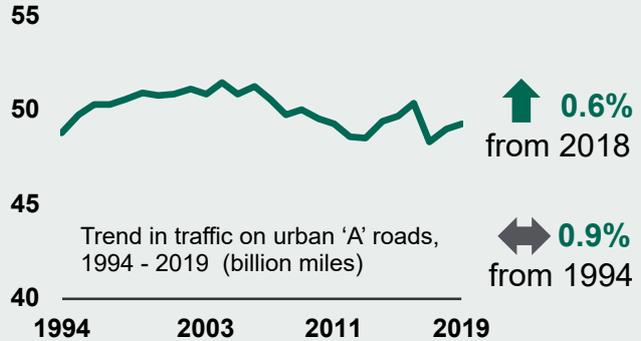
**49.2** billion vehicle miles in 2019

of which...

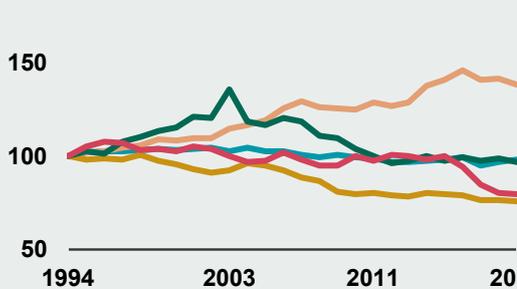


**3%** of road length

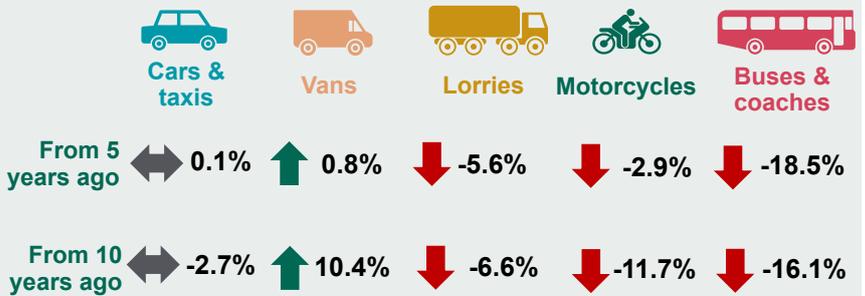
**14%** of vehicle miles



Index of urban 'A' road miles, by vehicle type (1994 = 100)



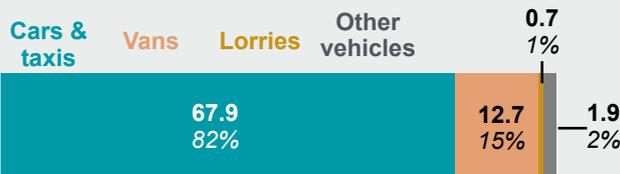
Change in urban 'A' road miles travelled by...



## Urban minor roads

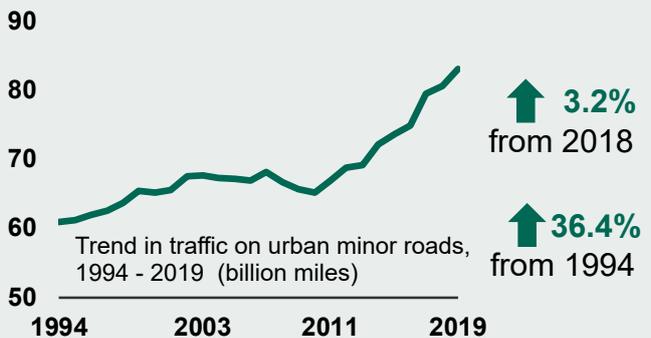
**83.2** billion vehicle miles in 2019

of which...

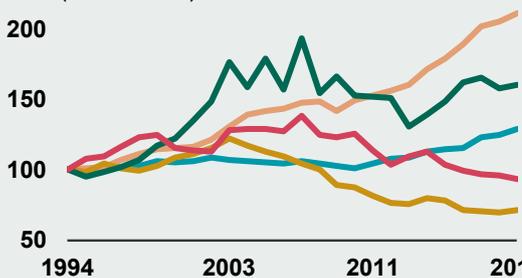


**35%** of road length

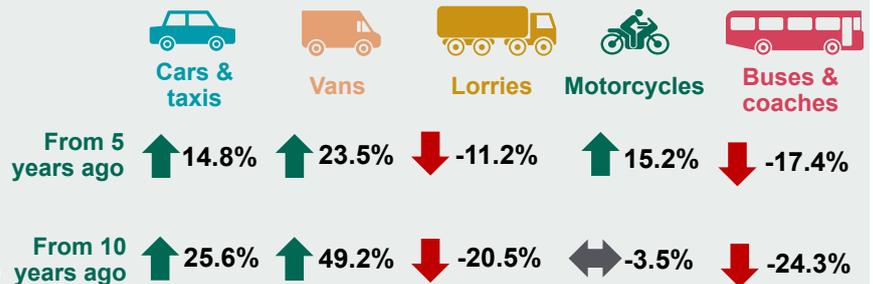
**23%** of vehicle miles



Index of urban minor road miles, by vehicle type (1994 = 100)



Change in urban minor road miles travelled by...



## Traffic trends by road type

The overall trends in traffic by road type are largely driven by the trends in car traffic, as cars account for over 70% of the vehicle miles travelled on each of the different road types. The table below shows the change in motor vehicle traffic compared to 25 years ago by vehicle type and road type

### Urban and rural trends

In 2019, rural 'A' and rural minor roads carried 43% of all motor vehicle traffic between them; around 16% more vehicle miles than those travelled on urban roads. This is partly due to the fact there are a greater proportion of rural roads. When considering the average daily flow, rural roads (12,300 vehicles on rural 'A' roads; 1,100 vehicles on rural minor roads) were far below the level on urban roads (19,100 on urban 'A' roads; 2,600 on urban minor roads).

Since 1994, traffic on rural roads has risen by 39% and 47% on 'A' roads and minor roads, respectively. Similar growth has been seen on urban minor roads, which have increased by 36%, however this is in contrast to the relatively flat trend in urban 'A' road traffic (1% increase).

This pattern has varied amongst vehicle types, with van traffic on urban roads rising 80%, compared to a fall of 26% in lorry traffic over the same period.

### Percentage change in road traffic in Great Britain, 1995-2019

	Cars & taxis	Vans	Lorries	Other motor vehicles	All motor vehicles
Motorways	53%	150%	41%	-12%	60%
Rural 'A' roads	34%	106%	11%	13%	39%
Rural minor roads	39%	128%	-21%	-10%	47%
Urban 'A' roads	-2%	39%	-24%	-13%	1%
Urban minor roads	29%	112%	-29%	21%	36%
All roads	30%	106%	13%	3%	36%

### Freight trends

The decline in lorry traffic on all urban roads and rural minor roads (a reduction of 1 billion vehicle miles between 1994 and 2019) has been offset by the increase in van traffic on these roads (an increase of 14 billion vehicle miles over the same period).

As discussed in the van and lorry sections of this report (see [p.11](#)), anecdotal evidence suggests that freight is moved more efficiently by larger lorries on motorways and rural dual-carriageways than on narrow or busy urban roads; large lorries are often restricted to certain routes. To some extent, vans may have replaced lorries for use in urban areas.

# The Strategic and Local Road Networks in England

This section explores how traffic differs across the different road networks in England.

## Overview

Compared with 2018, traffic increased on England's Strategic Road Network and the Local Road Networks in 2019.

Billion vehicle miles travelled in 2019:	Change 2018 - 2019:	AADF (Number of vehicles passing per 24 hours on a typical stretch of road)
Strategic Road Network 96.8	2.2%	58,700
Local Major Road Network 91.7	0.5%	13,800
Local Minor Road Network 118.0	3.3%	1,800

### In 2019 on the Strategic Road Network:

- ▶ Although the SRN makes up only 2.4% of England's road network, it carried 32% of all motorised traffic in England.
- ▶ **Car traffic** increased by 2.4% from 2018, to 70.8 billion vehicle miles.
- ▶ **Van traffic** grew more quickly than any other vehicle type, rising 2.6% from 2018 levels to 15.1 billion vehicle miles.
- ▶ **Lorry traffic** also grew by 0.7% to 10.3 billion vehicle miles.

### In 2019 on the Local Road Networks:

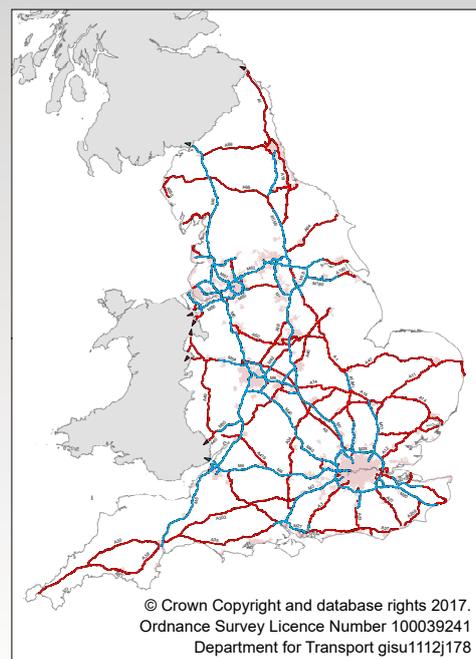
The local motorway and 'A' road network (major roads) carried 30% of traffic despite being only 9% of England's road length. The remaining traffic (38%) was on England's 'B', classified unnumbered and unclassified road network, which makes up 88% of roads in England.

### About the SRN

The Strategic Road Network (SRN) is made up of the motorways and major trunk roads in England that are managed by [Highways England](#) (HE; previously the Highways Agency). These roads are depicted in the map.

In 2019, the SRN comprised approximately 4,519 miles of road (2.4% of the English network).

The majority of other roads in England are maintained by one of the 152 local highways authorities.

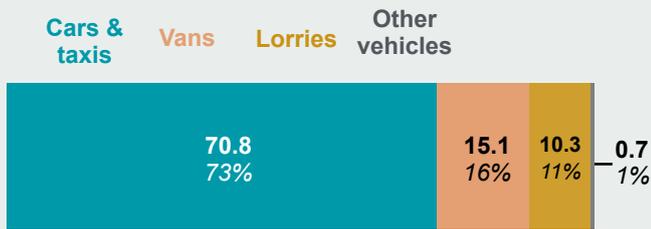


## Strategic Road Network

(Motorways and 'A' roads managed by Highways England)

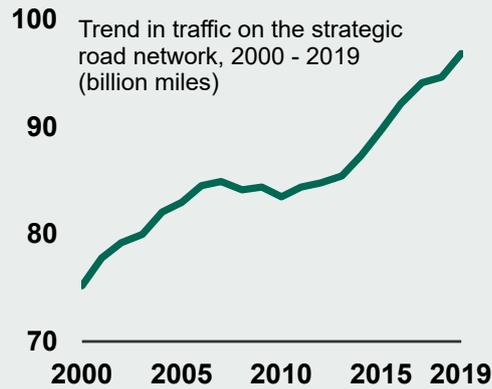
**96.8 billion vehicle miles in 2019**

of which...



**2%** of road length

**32%** of vehicle miles



↑ **2.2%**  
from 2018

↑ **28.8%**  
from 2000

## Local Major Road Network

(Motorways and 'A' roads managed by local authorities)

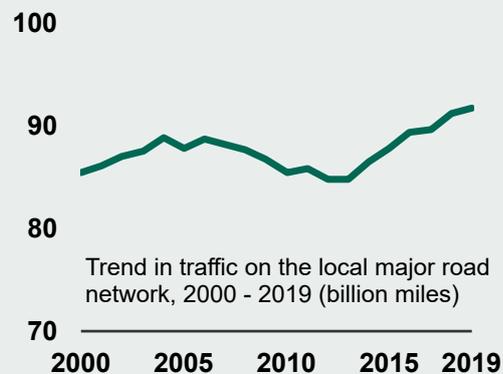
**91.7 billion vehicle miles in 2019**

of which...



**9%** of road length

**30%** of vehicle miles



↔ **0.5%**  
from 2018

↑ **7.3%**  
from 2000

## Local Minor Road Network

('B' and 'C' classified and unclassified roads managed by local authorities)

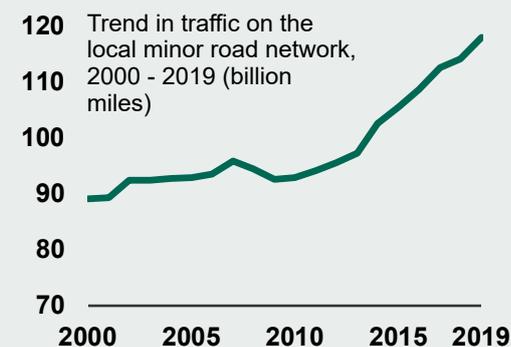
**118.0 billion vehicle miles in 2019**

of which...



**88%** of road length

**38%** of vehicle miles



↑ **3.3%**  
from 2018

↑ **32.0%**  
from 2000

## “Detrunking” and traffic trends over time on the SRN and local roads

Between 1999 and 2012, the length of the SRN reduced by 12.6%. This was a result of the detrunking programme, where the management of parts of the SRN transferred from Highways England (then Highways Agency) to the relevant local authorities.

DfT produces two kinds of time-series broken down by management to facilitate interpretation of trends over time:

- Figures in tables TRA41 figures refer to the management status of a road on 1st April in each of the historic years;
- Figures in tables TRA42 figures refer to the management status of a road as of 1st April 2018 (“static management”), to remove the effect of changing road length on vehicle miles.

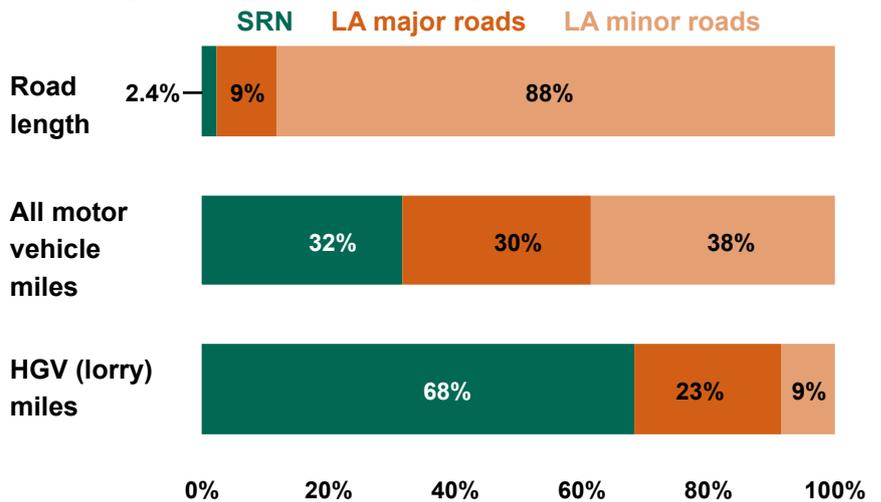
**All of the trends over time presented in this section use “static management” figures, as published in tables TRA42.**

## Share of traffic by road type

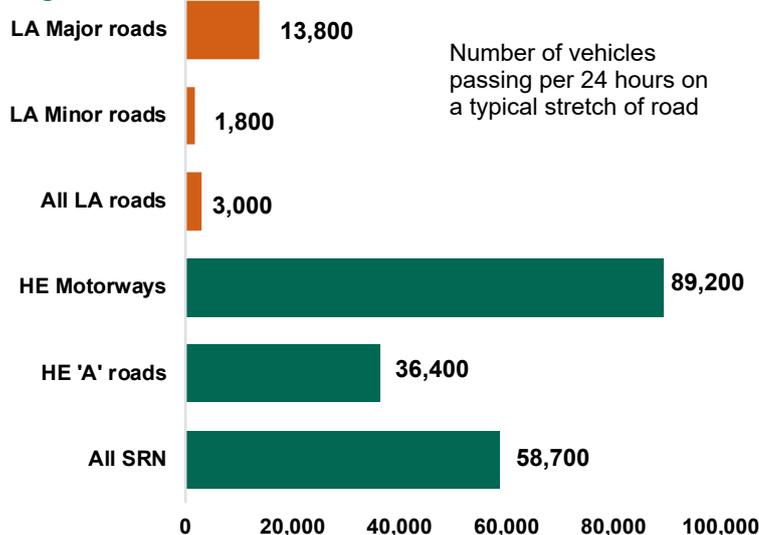
Despite making up only 2.4% of the road network by length in England, almost one third of all vehicle miles were driven on the SRN in 2019.

The SRN is particularly important for freight, with almost one third of van miles and over two-thirds of lorry miles in England being driven on the SRN in 2019.

### Road length and vehicle miles in England, 2019



### Average daily vehicle flow by road type and management, England 2019



Over 58 thousand vehicles travel along a typical stretch of the strategic road network each day. This is about four times greater than the number for a typical stretch of locally managed major roads, at 13,800.

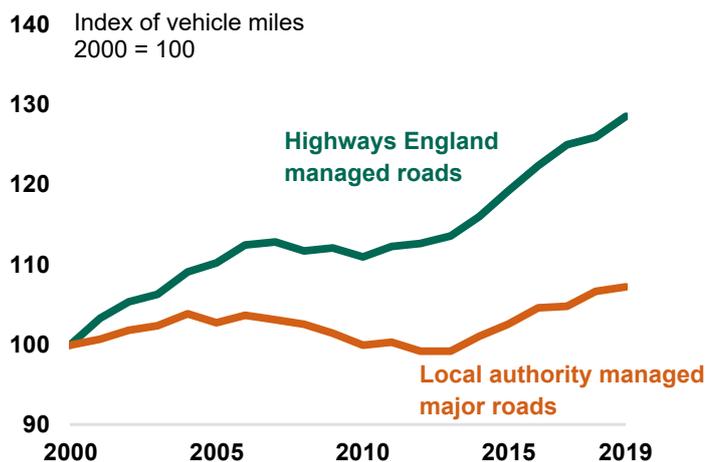
The difference in average vehicle flow between the SRN and local roads was widened by the “detrunking” program, which ran up to 2012 and transferred a subset of trunk roads (in general, those with lower flow) to local authority management.

## Longer term trends

Traffic on the SRN rose quickly after a period of stasis during the 2008 recession. Traffic increased 29% between 2000 and 2019.

Traffic fell more on all local roads during the recession but recovered at a similar rate. Traffic increased 20.1% between 2000 and 2019.

### Motor vehicle traffic in England by road management, 2000-2019



## Useful Links

Strategic Road Network Statistics - [www.gov.uk/government/statistics/strategic-road-network-statistics](http://www.gov.uk/government/statistics/strategic-road-network-statistics)

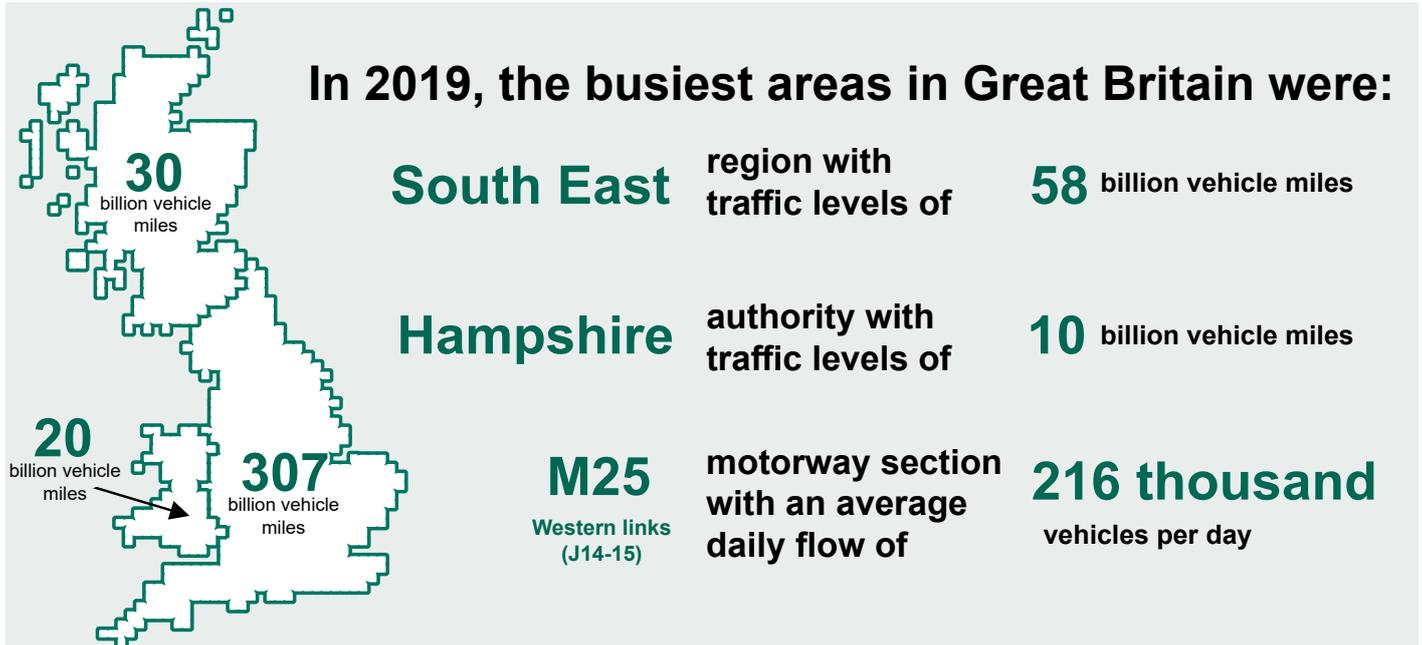
DfT report 'Use of the Strategic Road Network' - [www.gov.uk/government/statistics/use-of-the-strategic-road-network](http://www.gov.uk/government/statistics/use-of-the-strategic-road-network)

Highways England homepage - [www.gov.uk/government/organisations/highways-england](http://www.gov.uk/government/organisations/highways-england)

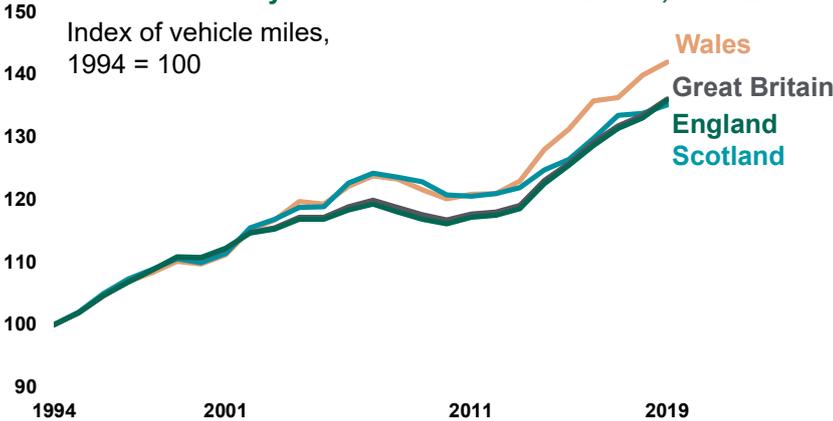
Forecasts from DfT's National Transport Model - [www.gov.uk/government/publications/road-traffic-forecasts-2018](http://www.gov.uk/government/publications/road-traffic-forecasts-2018)

# Geographical Variation in Traffic

This section explores how levels and trends in traffic differ between different roads and areas of Great Britain.



Road traffic trends by the countries of Great Britain, 1994-2019



At the national level in 2019, 86% of Great Britain's traffic was on England's roads.

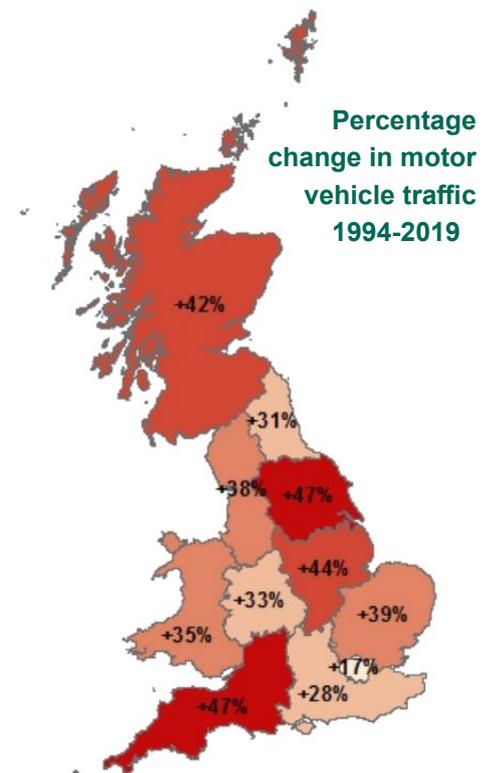
Over the last 25 years, traffic growth has been fastest in Wales and slowest in Scotland, with 2019 figures 42% and 35% higher respectively.

## Road traffic trends by regions of Great Britain

The South East region had the highest traffic levels in 2019, with 58 billion vehicle miles driven on its roads. This was 16% of all traffic in 2019. The South East has 12% of road length in Great Britain.

Of the five local authorities with the highest levels of traffic, three are in the South East region (Hampshire, Kent, Surrey) and the other two are in East of England region (Essex, Hertfordshire). These are all authorities with relatively large road networks, and they all contain some of the major motorways of Great Britain.

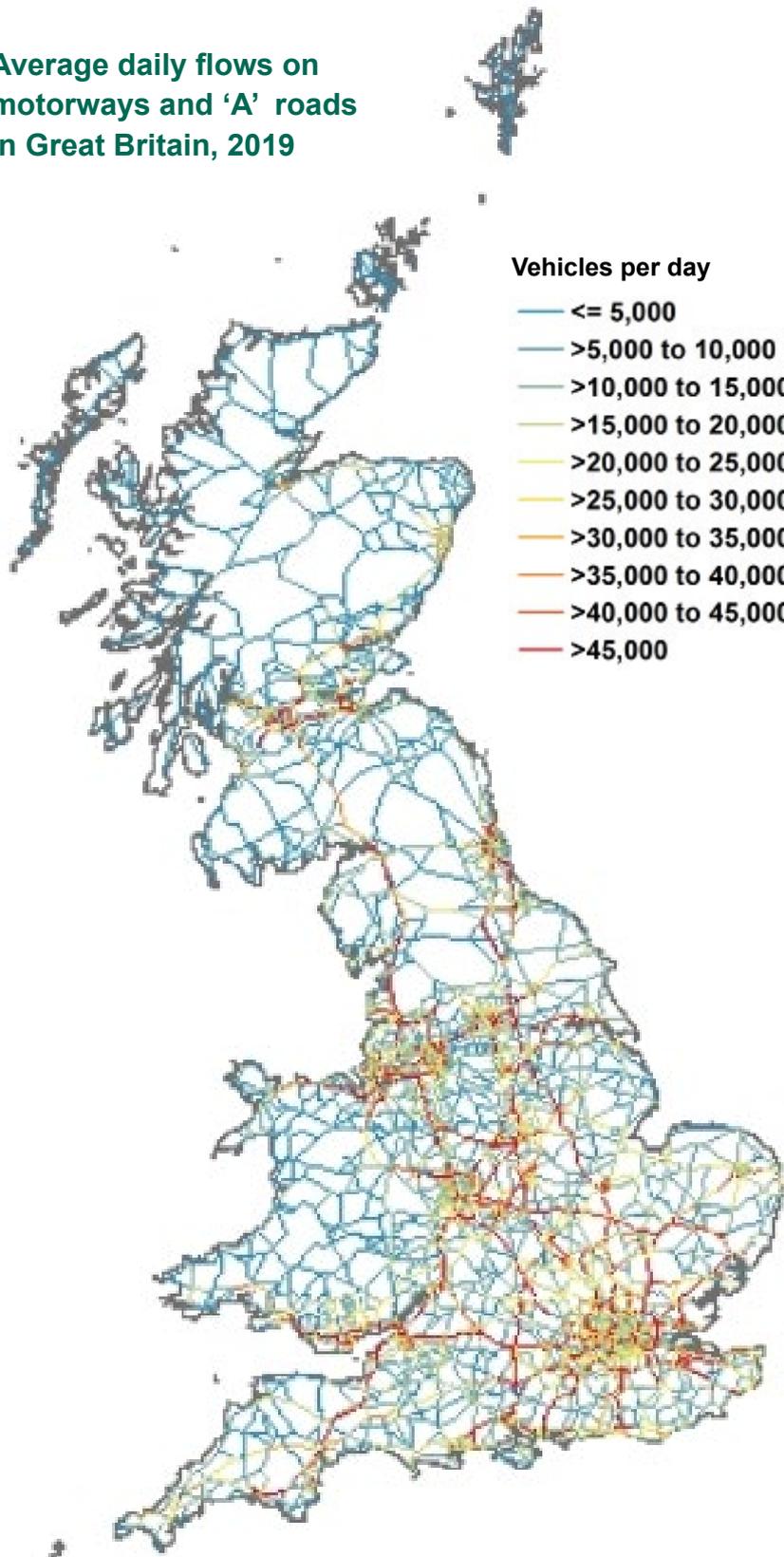
In 2019, all regions saw their traffic levels increase between 1-5% compared to their 2018 figures. Over the last 25 years, all regions seen their traffic levels increase by at least 17%.



## Road-level traffic data for Great Britain

The DfT statistics produce an estimate of traffic flow (see definition on page 3), for an average day in a given year, for each junction-to-junction link on the motorway and 'A' road network in Great Britain. The 2019 average flows for these roads are represented on the map.

### Average daily flows on motorways and 'A' roads in Great Britain, 2019



Average daily flows on motorway and 'A' road links in 2019 ranged from less than 5,000 vehicles to over 200,000.

Major roads with the lowest flow levels (shown in blue on the map) tended to be rural 'A' roads.

The busiest roads (shown in red on the map) were in general the motorways and 'A' roads that make up the Strategic Road Network in England, or equivalent trunk road networks in the devolved administrations.

The road links with the highest average daily traffic flows in 2019 were sections of the M25 and M60.

#### Five busiest road sections

Vehicles per day in 2019\*

1. M25 J14-15	216,000
2. M25 J11-12	201,000
3. M25 J15-16	199,000
4. M25 J12-13	186,000
5. M60 J12-13	181,000

\*rounded figures

#### Road-level data

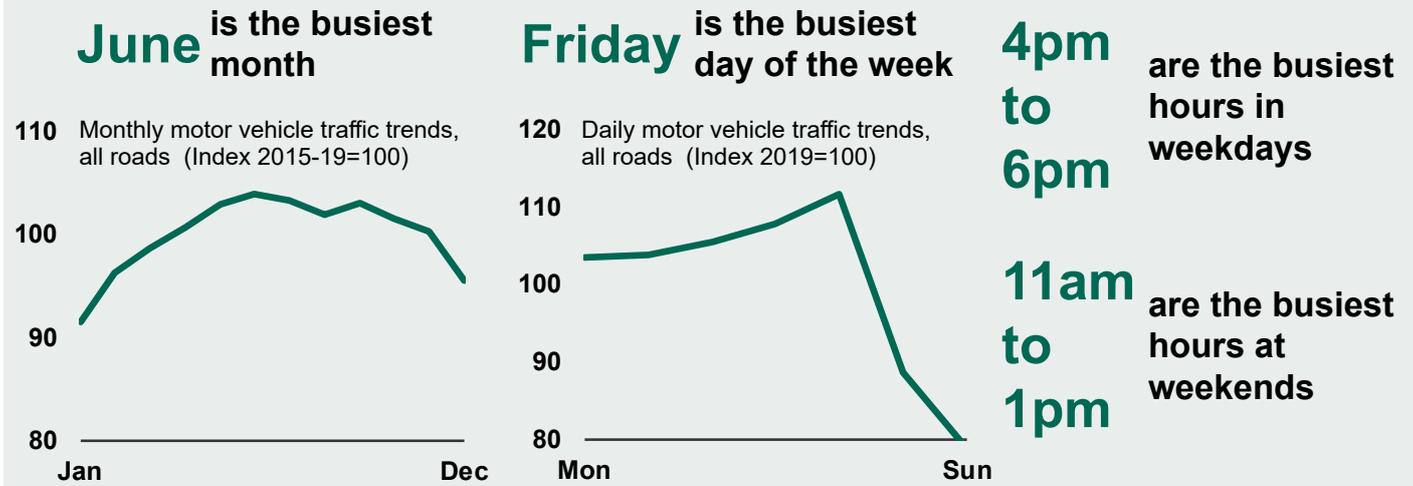
The street level traffic estimates for all junction-to-junction links of motorways and 'A' roads in Great Britain are available to view and download at the traffic counts website -

[roadtraffic.dft.gov.uk](http://roadtraffic.dft.gov.uk)

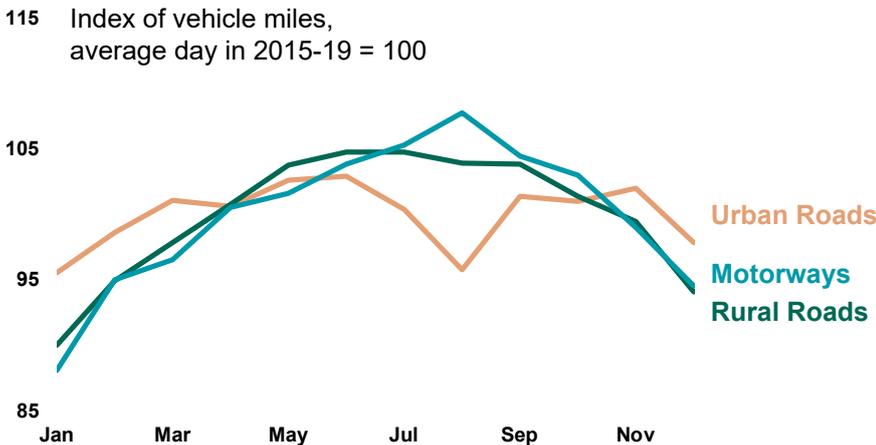
# Daily, weekly and seasonal traffic patterns

This section presents statistics on how traffic varies across the year.

On average, across all road types in Great Britain:



## Monthly motor vehicle traffic trends by road type, 2015-19



## Data source

Statistics about temporal variation in traffic flow are compiled using data from DfT's network of automatic traffic counters (ATCs). ATCs count and classify vehicles passing over them 24 hours a day, on every day of the year, so are well suited to provide data on flow variation across a range of timescales.

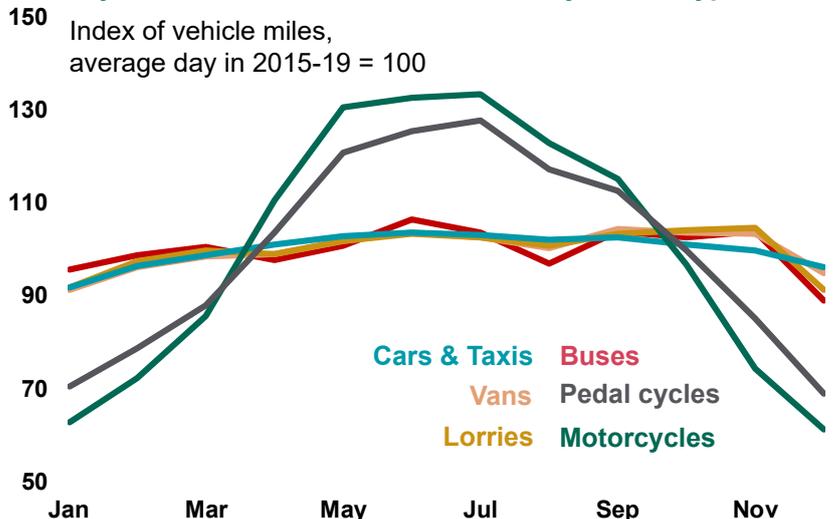
Figures presented in this publication will differ slightly from historical publications due to improvements to the methods applied. See [p37](#) for further information.

On average between 2015 and 2019, motor vehicle flow was lowest in January on all road types. Flow was highest on motorways in August. On urban and rural roads, flow was highest on average in June. A dip in urban road traffic is evident in August, likely due to this being the school holidays when traffic associated with the school run and commuting is reduced.

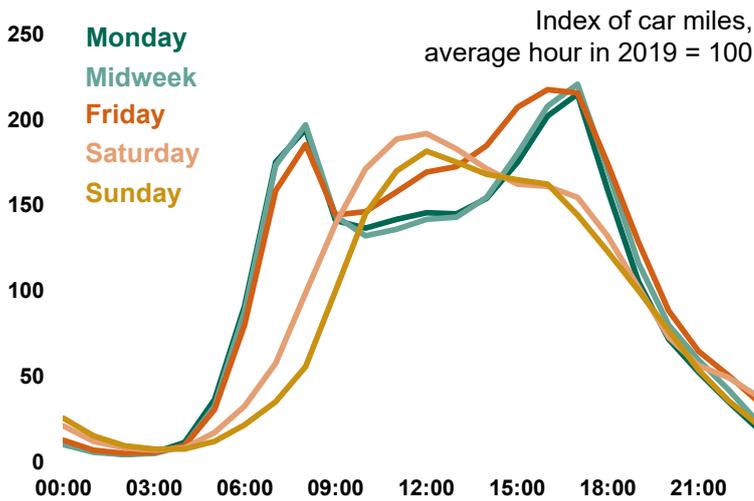
Most vehicle types (cars, vans, heavy goods vehicles, buses and coaches) followed these patterns by road type.

However, motorcycles and pedal cycles had much more seasonal travel patterns. The miles travelled by these vehicle types in the summer months were almost 60% higher than in the winter months.

## Monthly vehicle traffic trends on all roads by vehicle type, 2015-19



## Daily car traffic trends on all roads



On an average weekday in 2019, car traffic was highest in the afternoon peak, between 4pm and 6pm.

This pattern was observed across the different road types (motorways, rural roads, urban roads).

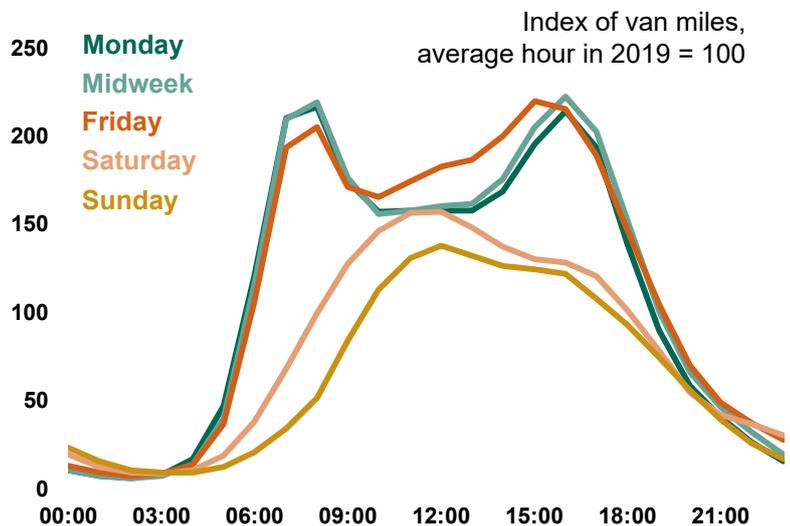
On an average weekend in 2019, car traffic was highest in the middle of the day, between 11am and 1pm. The weekend peaks were at a similar level to the weekday morning peak.

Motorways had a slightly different pattern on Sundays, where the peak traffic flow was on average between 4pm and 5pm.

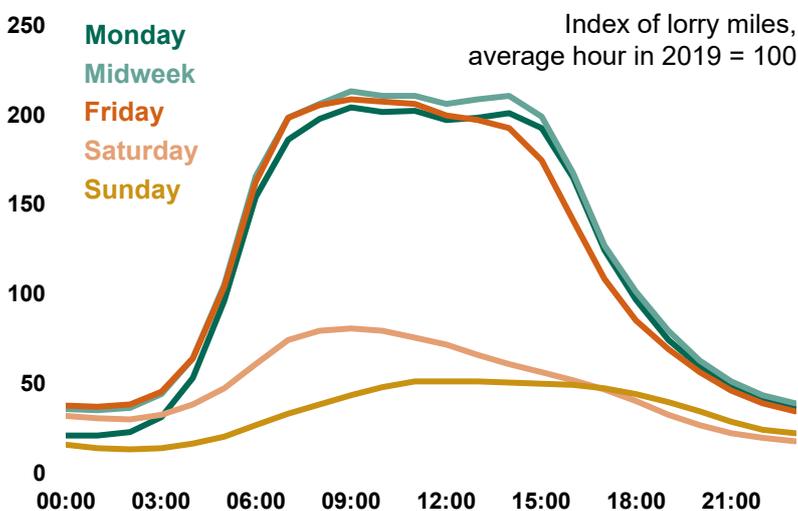
## Daily van traffic trends on all roads

On average in 2019, vans had similar daily travel patterns to cars. The main differences between van and car daily patterns were:

- Weekday morning and afternoon peaks were a similar level for vans, whereas the afternoon peak is higher for cars.
- The afternoon peak for vans was an hour earlier, between 3pm and 5pm, on average.
- The proportion of vans on the road at weekends was generally lower than weekdays, even at the peak periods.



## Daily lorry traffic trends on all roads



Lorry travel patterns, for an average weekday in 2019, showed a more constant level of traffic in the middle of the day than cars and vans. There were much lower numbers of lorries on the roads at the weekends than on weekdays.

On motorways, lorry weekday peaks were in the early afternoon (1pm to 3pm), except on Friday when the highest lorry traffic was at 11am to 12pm.

On other types of road, the highest weekday levels of lorry traffic were in the morning (9am to 10am).

# Impacts of road traffic

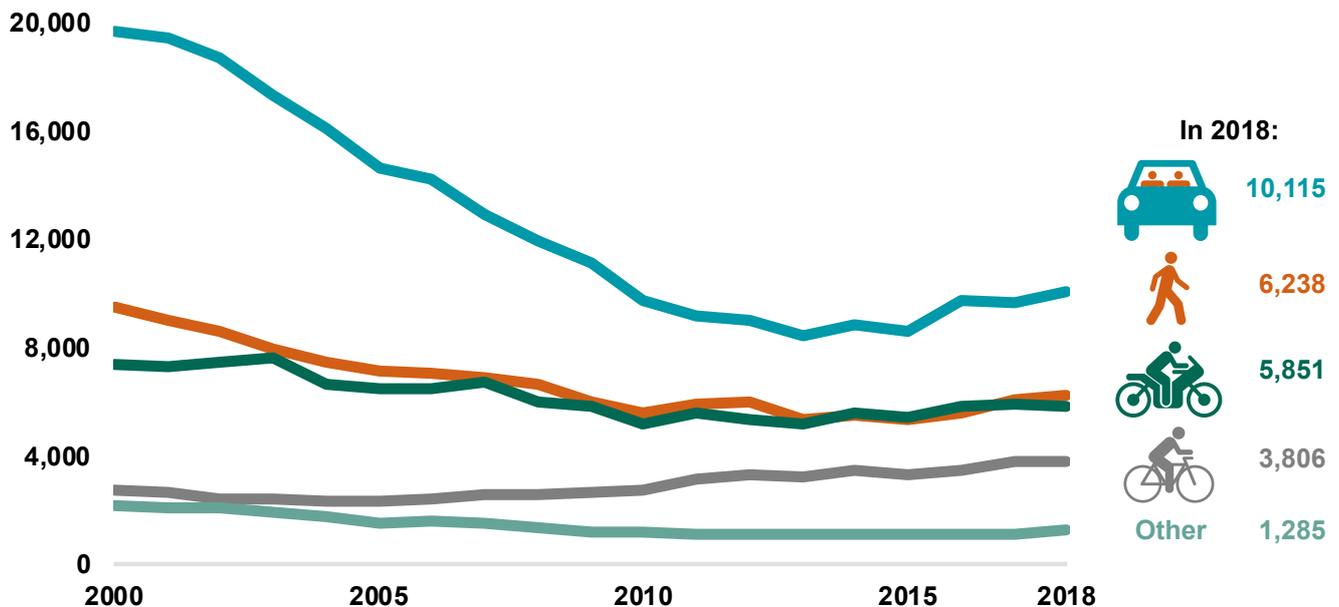
Whilst traffic levels can act as a barometer of trends in the economy and society, traffic itself also has a variety of impacts on human life and the environment.

## Road Accidents

Increases in traffic tend to lead to greater numbers of interactions between road users. Therefore, all else being equal, a rise in traffic is expected to increase the total number of accidents. However, per mile travelled, the risk of being killed or seriously injured in a road accident has fallen almost every year from a peak of 165 deaths per billion vehicle miles (bvm) in 1949 to 4.9 deaths per bvm in 2018.

There are a range of reasons for the fall in fatality rates, including: improvements in education and training; improvements in vehicle technology and highway engineering; improvements to trauma care; the introduction of road safety policies, such as speed limits; enforcement of legislation; and behavioural change.

## Number killed or seriously injured in Great Britain, 2000 to 2018



Source: DfT road accident statistics

## Journey times and reliability

It might be expected that an increase in traffic would result in worse congestion, and a decrease in traffic result in lighter congestion. However, the relationship is not that simple. The effect of an increase in traffic on congestion will depend on where and when the extra vehicle miles occur. For example, where congestion is most severe during the morning and evening rush-hour on weekdays, an increase in traffic at these peak times could have a large effect on congestion levels, but at other times of day may have little effect.

Another key factor is changes in the capacity of roads and junctions. For example, improving a junction may ease congestion while at the same time allowing an increase in traffic.

## Greenhouse gas emissions and air quality

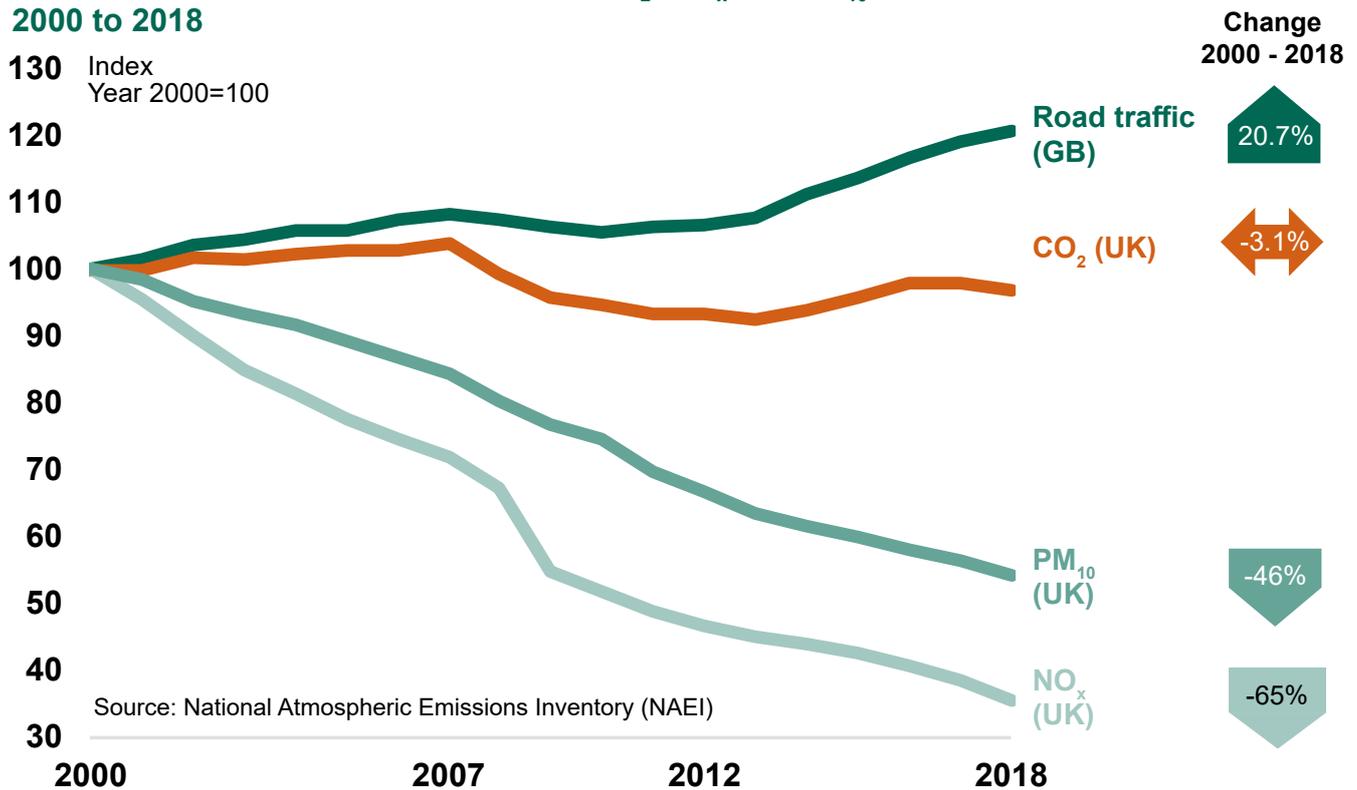
Road transport accounted for 25% of the UK's CO<sub>2</sub> emissions in 2018.

CO<sub>2</sub> emissions from road transport fell by 3.1% between 2000 and 2018, despite a 20.7% rise in vehicle miles travelled over the same period.

Fuel efficiency has been improving, and sales of ultra-low emissions vehicles have risen rapidly in recent years. The number of newly registered ultra-low emissions vehicles in 2018 was 63,992 (2.2% of all newly registered vehicles) compared to 4,314 in 2013.

Another environmental impact of road traffic is emission of Nitrogen oxides (NO<sub>x</sub>) and particulate matter smaller than 10µm in diameter (PM<sub>10</sub>). Emissions of both of these pollutants from road transport in the UK fell between 2000 and 2018.

### Index of road traffic and emissions of CO<sub>2</sub>, NO<sub>x</sub> and PM<sub>10</sub> from road transport, 2000 to 2018



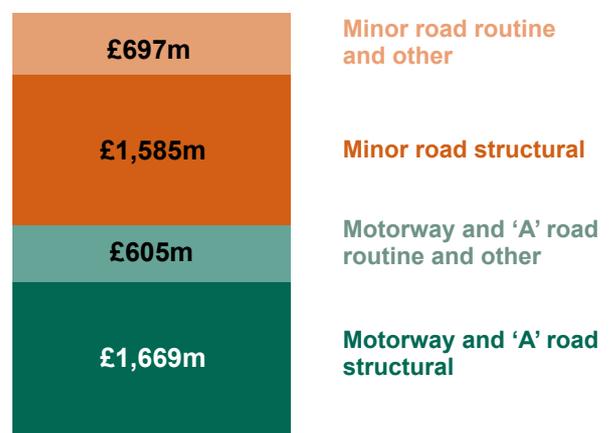
## Road condition

Over time, road vehicles cause damage to the roads they drive along, with heavier vehicles having a disproportionately large impact.

In 2018/19, 3% of the local 'A' road network in England should have been considered for maintenance. This is the same as in 2017/18.

In 2018/19, £4.6 billion was spent on the maintenance of roads in England. Of this, £1.0 billion was spent on motorways and 'A' roads managed by Highways England and £3.6 billion on local authority managed roads.

### Maintenance expenditure by road class, England 2018/19

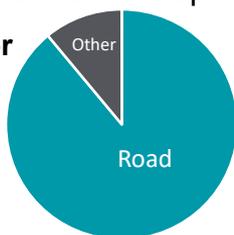


Source: DfT road condition statistics

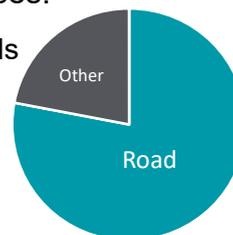
# Road Use

Road transport is the main transport mode for individuals and businesses.

89% of **passenger** miles are by road (2018)



78% of **freight** goods are moved by road (2018)



According to the 2019 National Travel Survey, in **England**...

-  **75%** of adults have a driving licence - 80% of men, and 71% of women
-  **76%** of households have access to a car, with 35% having two or more.
-  **61%** of all personal trips are made by car
-  **77%** of distance travelled per person per year are personal trips by car
-  **84%** of people travel by car at least once or twice a week

In 2018, within the **UK** road freight sector...

... there were 49,933 road freight enterprises ...



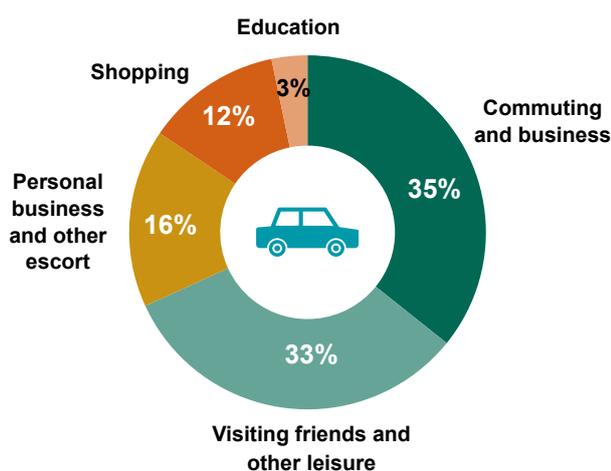
... contributing £13.2 billion to the UK economy.



## Roads are used for a wide variety of purposes...

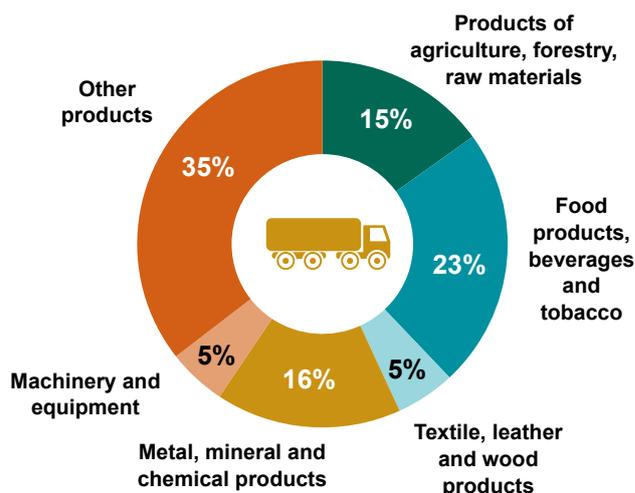
- The largest share of personal car mileage in England was for commuting and business trips.
- Almost one-quarter of the goods moved by British HGVs in the UK comprised food products, beverages and tobacco.

Car driver mileage in England by trip purpose, 2019



Source: [National Travel Survey](#)

Share of goods moved by GB registered lorries, 2019



Source: [DfT Road Freight Statistics](#)

## Further information

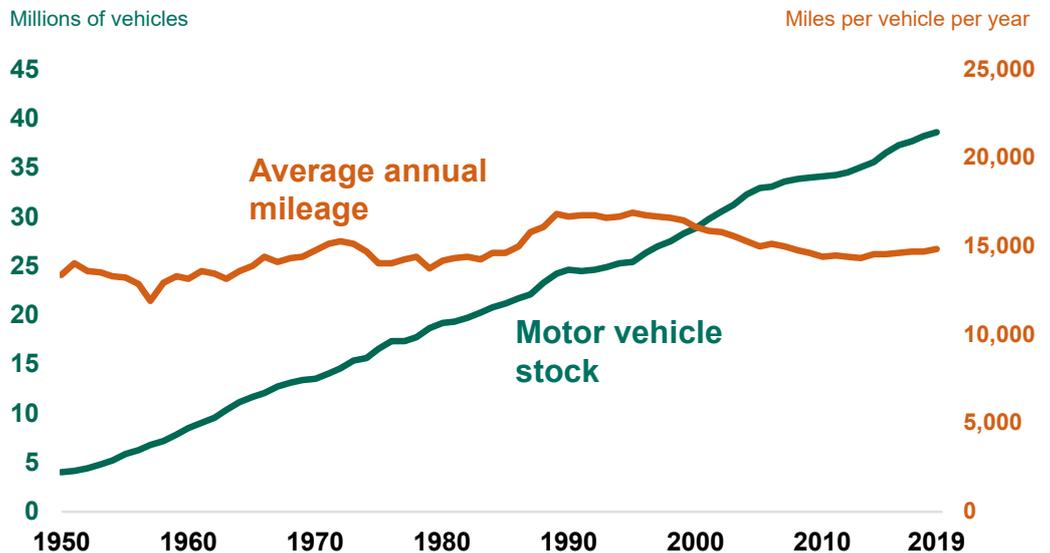
An overview of the statistics on roads, and how they are used, can be found in the DfT report '[Road use statistics](#)'.

# Factors affecting road traffic

## Components of road traffic

Changes in road traffic can result from a change in the number of vehicles, a rise or fall in how intensively each vehicle is used (average annual mileage), or a combination of the two. The growth in motor vehicle traffic since 1950 has largely been due to an increasing number of licensed vehicles, although there have been fluctuations in average annual mileage.

**Licensed motor vehicle stock and average annual mileage in Great Britain, from 1950**



Source: DfT Road Traffic and Vehicle Licensing Statistics

## Population growth and density

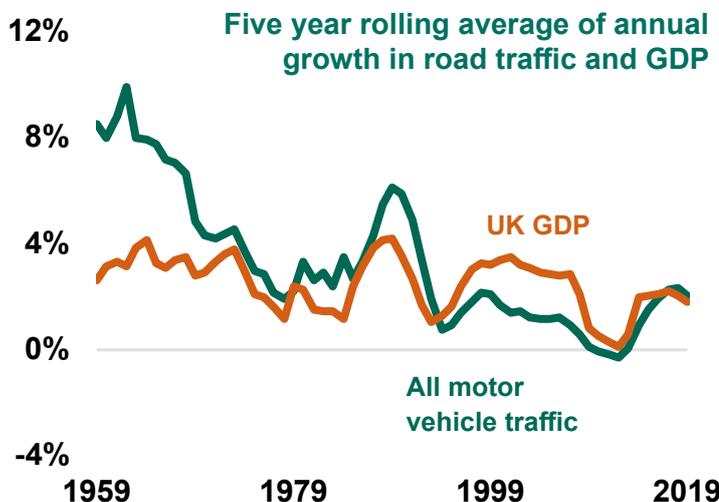
Population changes affect traffic levels. There has been a steady growth in population over the last twenty years, increasing the number of people needing to travel. Car is the main mode of transport for most people, with almost 90% of passenger mileage on roads, and over three-quarters of the goods that people use being transported by road.

The geographic pattern of population growth is a key factor in how traffic is affected. The more rurally people live, the further they travel. The 2019 National Travel Survey showed that those living in rural hamlets and villages travel 94% further than those in urban areas.

## Incomes, the economy, and employment

Fluctuations in road traffic levels tend to coincide with events such as changes in the economy (including GDP, see the chart to the right) and peoples' disposable incomes, which influence car ownership and the trip behaviour of car owners.

Over the long term, the relative cost of purchasing a motor vehicle has decreased, and this has contributed to increases in car ownership.

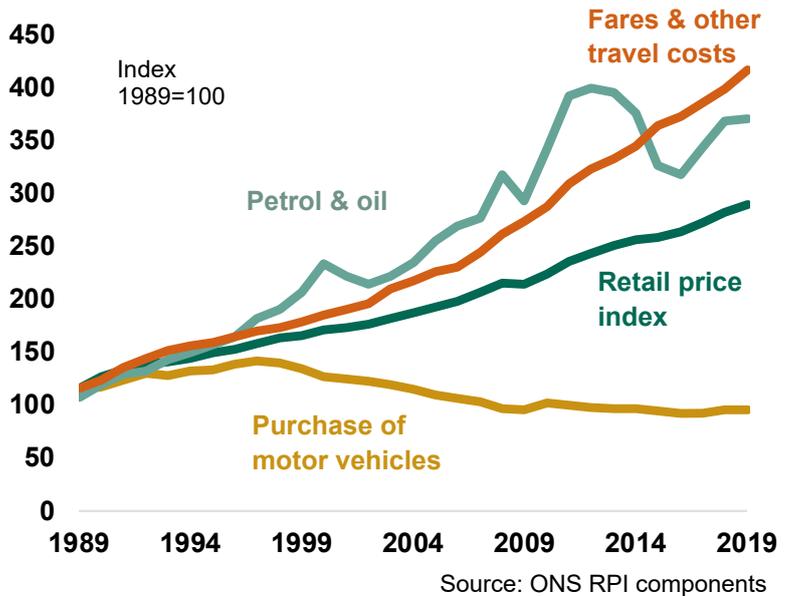


Source: ONS GDP data

According to the National Travel Survey, only 14% of British households had access to a car in 1951, versus 76% of English households in 2019. Scope for further growth in ownership remains as, in 2019, 45% of households in the lowest income quintile were without access to a car.

How heavily cars are used is influenced by the cost of fuel, as well as associated changes in the cost of alternative modes of transport (i.e. buses and trains).

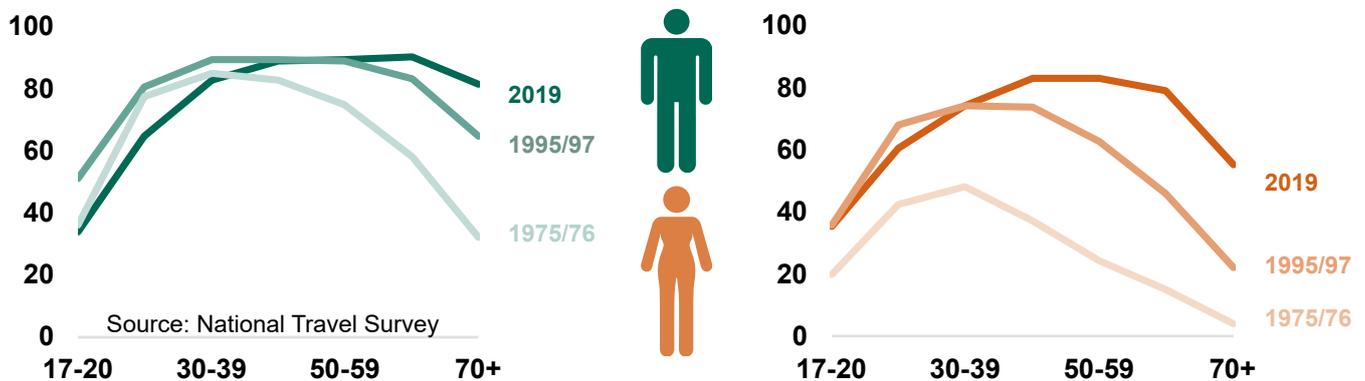
### Trends in the cost of motoring and retail price index, 1989-2019



### Demography

Personal travel behaviour also varies with factors such as age and sex, due to changing needs at different life stages and cohort effects. 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. The proportion of young adults (aged 17-20) with a full driving licence has decreased since the 1990s when it was highest for this age group.

#### Proportion of full driving licence holders by age, in 1975/6, 1995/7 and 2019



### Links to sources

The data sources used in this section include:

Transport Statistics Great Britain - [www.gov.uk/government/collections/transport-statistics-great-britain](http://www.gov.uk/government/collections/transport-statistics-great-britain)

The National Travel Survey - [www.gov.uk/government/collections/national-travel-survey-statistics](http://www.gov.uk/government/collections/national-travel-survey-statistics)

Annual Business Survey - [www.ons.gov.uk/businessindustryandtrade/business/businessservices/bulletins/uknonfinancialbusinessseconomy/previousReleases](http://www.ons.gov.uk/businessindustryandtrade/business/businessservices/bulletins/uknonfinancialbusinessseconomy/previousReleases)

Office for National Statistics GDP data - [www.ons.gov.uk/economy/grossdomesticproductgdp](http://www.ons.gov.uk/economy/grossdomesticproductgdp)

Office for National Statistics RPI data - [www.ons.gov.uk/economy/inflationandpriceindices](http://www.ons.gov.uk/economy/inflationandpriceindices)

DfT road accident statistics - [www.gov.uk/government/collections/road-accidents-and-safety-statistics](http://www.gov.uk/government/collections/road-accidents-and-safety-statistics)

DfT road condition statistics - [www.gov.uk/government/collections/road-network-size-and-condition](http://www.gov.uk/government/collections/road-network-size-and-condition)

DfT environment statistics - [www.gov.uk/government/collections/energy-and-environment-statistics](http://www.gov.uk/government/collections/energy-and-environment-statistics)

Further information on factors affecting traffic can be found in the [Understanding the Drivers of Road Travel report](#), a review of the evidence on road demand.

# Further Information

## Online traffic data

The complete series of data tables associated with this release, including tables mentioned in the text, can be found on the following pages:

- ▶ **TRA01:** Traffic volume (miles) - [www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#traffic-volume-in-miles-tra01](http://www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#traffic-volume-in-miles-tra01)
- ▶ **TRA02:** Traffic volume (kilometres) - [www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#traffic-volume-in-kilometres-tra02](http://www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#traffic-volume-in-kilometres-tra02)
- ▶ **TRA03:** Average annual daily flow and temporal traffic distributions - [www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#annual-daily-traffic-flow-and-distribution-tra03](http://www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#annual-daily-traffic-flow-and-distribution-tra03)
- ▶ **TRA04:** Pedal cycle traffic - [www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#pedal-cycle-traffic-tra04](http://www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#pedal-cycle-traffic-tra04)
- ▶ **TRA31:** Heavy goods vehicle traffic - [www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#heavy-goods-vehicle-traffic-tra31](http://www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#heavy-goods-vehicle-traffic-tra31)
- ▶ **TRA32:** Foreign registered vehicles in GB traffic - [www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#foreign-registered-vehicles-in-great-britain-traffic-tra32](http://www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#foreign-registered-vehicles-in-great-britain-traffic-tra32)
- ▶ **TRA41:** Strategic Road Network traffic - [www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#strategic-road-network-traffic-tra41](http://www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#strategic-road-network-traffic-tra41)
- ▶ **TRA42:** Strategic Road Network traffic based on a static road management status - [www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#traffic-based-on-a-static-road-management-status-tra42](http://www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#traffic-based-on-a-static-road-management-status-tra42)
- ▶ **TRA89:** Road traffic by region and local authority - [www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#traffic-by-local-authority-tra89](http://www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#traffic-by-local-authority-tra89)

## Quarterly traffic data

- ▶ **TRA25:** All quarterly traffic estimates - [www.gov.uk/government/statistical-data-sets/tra25-quarterly-estimates](http://www.gov.uk/government/statistical-data-sets/tra25-quarterly-estimates)

## Traffic counts website

- ▶ This website provides street-level traffic data for every junction-to-junction link on the 'A' road and motorway network in Great Britain, and all minor road counts, free for the general public - [roadtraffic.dft.gov.uk](http://roadtraffic.dft.gov.uk)

## Related data

- ▶ **DfT Road traffic forecasts** - [www.gov.uk/government/publications/road-traffic-forecasts-2018](http://www.gov.uk/government/publications/road-traffic-forecasts-2018)
- ▶ **DfT Road congestion and reliability statistics** - [www.gov.uk/government/collections/road-congestion-and-reliability-statistics](http://www.gov.uk/government/collections/road-congestion-and-reliability-statistics)
- ▶ **DfT National Travel Survey Statistics** - [www.gov.uk/government/collections/national-travel-survey-statistics](http://www.gov.uk/government/collections/national-travel-survey-statistics)
- ▶ **DfT Road accidents and safety statistics** - [www.gov.uk/government/collections/road-accidents-and-safety-statistics](http://www.gov.uk/government/collections/road-accidents-and-safety-statistics)
- ▶ **DfT Vehicles statistics** - [www.gov.uk/government/collections/vehicles-statistics](http://www.gov.uk/government/collections/vehicles-statistics)
- ▶ **DfT report 'Use of the Strategic Road Network'** - [www.gov.uk/government/statistics/use-of-the-strategic-road-network](http://www.gov.uk/government/statistics/use-of-the-strategic-road-network)
- ▶ **DfT report 'Understanding the drivers of road travel'** - [www.gov.uk/government/publications/understanding-the-drivers-of-road-travel-current-trends-in-and-factors-behind-roads-use](http://www.gov.uk/government/publications/understanding-the-drivers-of-road-travel-current-trends-in-and-factors-behind-roads-use)
- ▶ **DfT Road use statistics 2016 report** - [www.gov.uk/government/statistics/road-use-statistics-2016](http://www.gov.uk/government/statistics/road-use-statistics-2016)
- ▶ **Transport Statistics Great Britain 2019** - [www.gov.uk/government/collections/transport-statistics-great-britain](http://www.gov.uk/government/collections/transport-statistics-great-britain)

# Background information

These statistics were [designated as National Statistics in February 2013](#).

## National Statistics

National Statistics are produced to high professional standards set out in the National Statistics Code of Practice. They undergo regular quality assurance reviews to ensure they meet customer needs.

Details of Ministers and officials who receive pre-release access to these statistics up to 24 hours before release can be found here: [www.gov.uk/government/publications/pre-release-access-lists-for-road-traffic-speeds-and-congestion-series](http://www.gov.uk/government/publications/pre-release-access-lists-for-road-traffic-speeds-and-congestion-series)

## Traffic statistics methodology: strengths and weaknesses

Annual estimates make use of data from around 8,000 manual traffic counts in addition to continuous data from a national network of automatic traffic counters. These data sources produce accurate estimates on traffic levels in Great Britain by vehicle type and by road type.

A detailed explanation of the methodology used to produce DfT road traffic statistics can be found online in **Annual road traffic estimates: methodology note** at [www.gov.uk/government/publications/road-traffic-statistics-guidance](http://www.gov.uk/government/publications/road-traffic-statistics-guidance).

Whilst road traffic data is accurate at a high level of aggregation, it should be noted that:

- ▶ Although we produce traffic breakdowns by local authorities, traffic at this level is not robust, due to the sample size of the minor road data and must be treated with caution.
- ▶ Estimates for pedal cycle traffic only include cycling on roads, or paths directly adjacent to the road, and do not include estimates of cycling on other routes such as canal paths. Therefore, they may not give a complete representation of cycling.
- ▶ During June, every second year, a roadside survey is carried out collecting information about vehicles travelling on the road which identifies vehicles with registration marks originating outside United Kingdom. This information has been used to produce estimates of the rate of foreign registered vehicles on Britain's roads, which are presented in tables [TRA32](#). These figures are designated as official statistics but not as National Statistics and should be treated with caution as the sample size is relatively small (over 7,000 observations of foreign registered vehicles out of 1.1 million total observations). Particular attention should be paid to the confidence interval associated with each statistic and in some cases statistics have not been produced as the sample size is too small. This survey is next due to be carried out in 2019 and therefore the next estimates of foreign vehicle traffic will be published in 2020.
- ▶ The Road Traffic statistics series consistently reports higher levels of vehicle kilometres for lorries than the Road Freight statistics series. This can mainly be attributed to difference in data collection. A methodology note on this issue has been published and can be found in our statistical guidance notes online here: [www.gov.uk/government/publications/road-traffic-statistics-guidance](http://www.gov.uk/government/publications/road-traffic-statistics-guidance).

## Traffic statistics methodology: strengths and weaknesses (continued)

### Minor road traffic estimates: 2019 benchmark exercise

The Department for Transport publish estimates of minor road traffic in Great Britain on an annual and quarterly basis. These estimates are calculated using observations of the change in traffic at a fixed sample of locations.

For the minor road traffic estimates, the sample of minor road locations remains fixed for around 10 years. Change estimates from a fixed sample may drift over time and the sample may vary and become less representative of the changing minor road network. To account for any error incurred in the fixed sample, the sample is revised through the minor roads benchmarking exercise every decade.

The latest benchmarking exercise has been conducted over 2018 and 2019. The exercise comprises traffic counts undertaken, in parallel with the standard annual minor road counts, using a new large benchmark sample of minor road locations across Great Britain. An estimate of the 2019 minor road traffic level was calculated from these benchmark counts and compared with the existing estimate from the standard annual process. As a result of this benchmark exercise, minor road traffic estimates have been revised for 2010 to 2019, providing a new basis for future estimates.

The key strengths and weaknesses of the benchmark are:

- The benchmark traffic estimate for minor roads is calculated from a new larger sample. This will mitigate error accumulated in the rolled over and grown traffic estimate. The sample was selected to best represent all minor roads in Great Britain, but this does not eliminate potential error. As such, the changes seen between the standard 2019 estimate and the benchmark estimate could partly be due to the different sample.
- Applying the benchmark adjustments over the last 10 years gives a more comparable back series and mitigates the chance of error accumulated from the fixed sample. This also makes the key assumption that traffic growth is gradual over time and there are systematic increases year on year.

For more information about the minor benchmark, see the 2019 Benchmark Frequently Asked Questions and the 2019 Benchmark Methodology Report:

<https://www.gov.uk/government/publications/road-traffic-statistics-minor-road-benchmarking>

### Improvements to the temporal distribution analyses

The Department for Transport publish estimates of the temporal variation in traffic flow using data from DfT's network of automatic traffic counters (ATCs). Figures presented in this publication, and in tables TRA0305 to TRA0308 will differ slightly from historical publications due to improvements to the weighting applied to the underlying raw data to produce summary estimates by road type. The new methodology is based on the calculations used for the provisional road traffic estimates, which are published quarterly. The figures from 2016 have been revised to use the new methods.

# Background information

## Users and uses of road traffic estimates

We continuously review the content of these statistics to ensure they are meeting users' needs. We welcome feedback via email and the team can be contacted at [roadtraff.stats@dft.gov.uk](mailto:roadtraff.stats@dft.gov.uk).

A summary of the feedback we have received from users in a previous consultation can be found in '[Meeting customers' needs: Users and uses of road traffic statistics and data](#)'. We continue to welcome any feedback on these statistics.

Road traffic data are a key source of management information on the country's infrastructure. Main uses of road traffic statistics include:

### ► National Atmospheric Emissions Inventory (NAEI)

Road traffic statistics are used to produce the National Atmospheric Emissions Inventory (NAEI), a legal requirement for EU Air Quality Directives, and for the UN Framework Convention on Climate Change.

### ► Transport Modelling

The Department for Transport's National Transport Model uses most traffic and speeds outputs to make forecasts and to inform policy decisions on a broad range of issues.

### ► Local transport planning

Local Authorities (including Transport for London) and devolved governments use the data for transport planning, road engineering and policy monitoring at a regional or local level.

### ► Road accident and safety statistics

Road accident and safety statistics use annual and quarterly traffic estimates to produce road safety and accident rates, as required for the Strategic Framework on Road Safety.

### ► Ministry of Housing, Communities and Local Government

This department uses traffic data on major roads to contribute towards the funding settlement for local authorities.

### ► Public Users

The Department for Transport receives over 200,000 visits to the traffic counts website ([roadtraffic.dft.gov.uk](http://roadtraffic.dft.gov.uk)) and its underlying datasets, which provide street-level traffic data for every junction-to-junction link on the 'A' road and motorway network in Great Britain.

## Feedback

We welcome further feedback on any aspects of the Department's road traffic statistics including content, timing, and format via email to [roadtraff.stats@dft.gov.uk](mailto:roadtraff.stats@dft.gov.uk)

## Next release

The next annual traffic statistics release is expected to be published in June 2021, reporting 2020 traffic figures.

Provisional figures for 2020 will be published on a quarterly basis during 2020-21. The next provisional figures, for the year to end June 2020, are due to be released in October 2020.