



Department  
for Transport

# Road Traffic Estimates: Great Britain 2021

## Minor Road Traffic Estimates Historic Revisions

Minor road traffic estimates from 2000 to 2020 have been revised as a result of a previously announced review. Further information on the review and the impact of the revisions can be found on page [29](#).

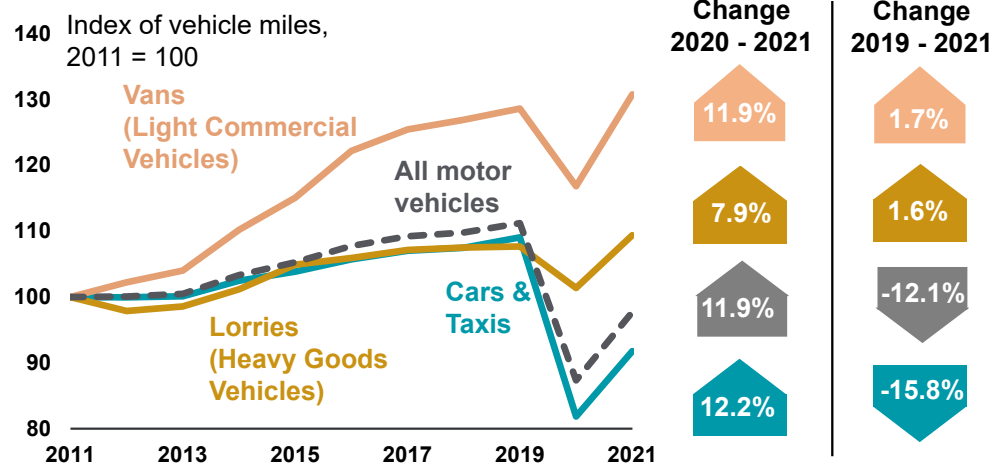
**297.6 billion vehicle miles were driven on Great Britain’s roads in 2021, an increase of 11.9% compared to 2020.**

**Traffic in 2021 was 12.1% lower compared to 2019 pre-pandemic levels.**

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Vehicle miles travelled by selected vehicle types in Great Britain, 2011-2021



### In 2021:

- **Car traffic** increased by 12.2% from 2020 levels to 221.4 bvm. 2021 car traffic estimates remain lower than those for before the pandemic (-15.8% when compared to 2019, page [11](#)).
- **Van traffic** increased by 11.9% from 2020 to 54.4 bvm. Van traffic estimates for 2021 are higher than levels before the pandemic (+1.7% when compared to 2019, page [12](#)).
- **Lorry traffic** increased by 7.9% from 2020 to 17.5 bvm. 2021 lorry traffic estimates are higher than levels before the pandemic (+1.6% when compared to 2019, page [13](#)).
- **Pedal cycle traffic** (cyclists on public highways, and the paths next to them) was 4.2 bvm, 20.8% below 2020 levels. 2021 Cycle traffic estimates are higher than levels before the pandemic (+15.7% when compared to 2019, page [16](#)).
- **Motorways** traffic increased by 14.4% compared to 2020, carrying 60.3 bvm of traffic. Motorway traffic estimates for 2021 remain lower than those for before the pandemic (-14.5%, page [18](#)).
- **The Strategic Road Network** traffic increased by 14.6% compared to 2020, carrying 83.2 bvm of traffic. 2021 Strategic Road Network traffic estimates remain lower than those for before the pandemic (-14.1% when compared to 2019, page [21](#)).
- **‘A’ roads** saw a 12.4% increase in traffic from 2020. ‘A’ roads traffic estimates for 2021 are lower than those for before the pandemic (-13.6% when compared to 2019, page [19](#)).
- **Minor road traffic** increased by 10.0% since 2020. 2021 minor roads traffic estimates remain lower than those for before the pandemic (-8.8% when compared to 2019, page [20](#)).

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# About this Release

This release presents the 2021 annual estimates of traffic on Great Britain's roads broken down by vehicle type, road category and geographic area.

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.

## Changes to the 2021 Road Traffic publication following the impact of coronavirus (COVID-19) on traffic estimates

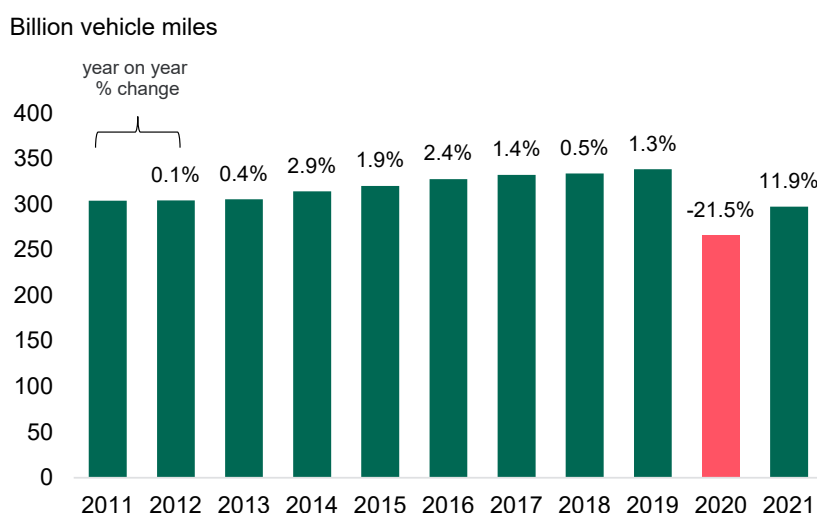
The traffic estimates presented in this release cover the calendar year of 2021 and include periods following the government's announcements of measures to limit the impact and transmission of the coronavirus (COVID-19) pandemic. Coronavirus has had a wide impact on UK society and economic activity since March 2020.

This release focuses mainly on short term trends, comparing traffic estimates for 2021 with the previous calendar year (2020) and the last full calendar year 'pre-pandemic' (2019). Whilst historically significant, the long term trends for this year can be misleading in most cases due to the extraordinary circumstances observed as a result of the coronavirus pandemic.

As shown in the chart, vehicle miles travelled in Great Britain saw year-on-year growth in each year between 2011 and 2019.

Following a sharp decline in 2020, traffic levels for 2021 have increased on the previous year but still remain lower than the 2011 levels. Therefore, to say traffic has fallen over the last decade would misconstrue as the overall decrease is entirely due to the decline in traffic levels observed in the 2020-2021 estimates.

Vehicle miles travelled in Great Britain, 2011-2021



Long term trends are presented on page 9 of this release. The full historic series of road traffic estimates are available in the [tables](#) that are published alongside this release.

### 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 ( $10^9$ ).

#### Index Number

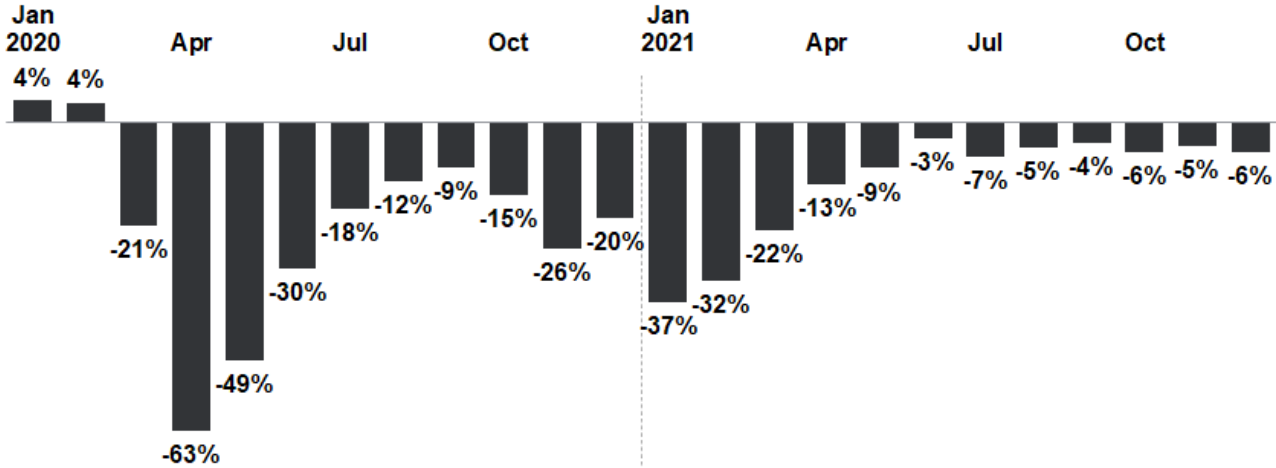
Used in this release to compare changes over time (from a selected base year) across multiple indicators where they cannot be directly compared.

# Impact of coronavirus (COVID-19)

The coronavirus (COVID-19) pandemic had a marked impact on everyday life, including on traffic on the road network. The first national lock down commenced on 23rd March 2020. That, and subsequent restrictions, limited the movement of people to varying degrees.

## Motor vehicle traffic in Great Britain, 2020 - 2021

Percentage change since equivalent month in 2019



During the “Stay Home” period in late March and April 2020, only essential workers were allowed to go to their place of work, and travel outside of the home was severely limited. April 2020 was the month which saw the largest fall in traffic, 63% lower than traffic levels in April 2019.

As the restrictions started to ease, the monthly traffic levels increased gradually. Subsequent lockdowns and restrictions led to lower traffic levels and January 2021 saw the largest monthly fall in traffic (37% lower than levels in January 2019) since May 2020. After all restrictions were lifted on 19 July 2021, in the remaining months of 2021, traffic levels were between 4% and 6% lower than the equivalent monthly traffic levels in 2019.

An analysis of the road traffic data by time of day shows that the reductions in road traffic were not uniform across all hours of the day.

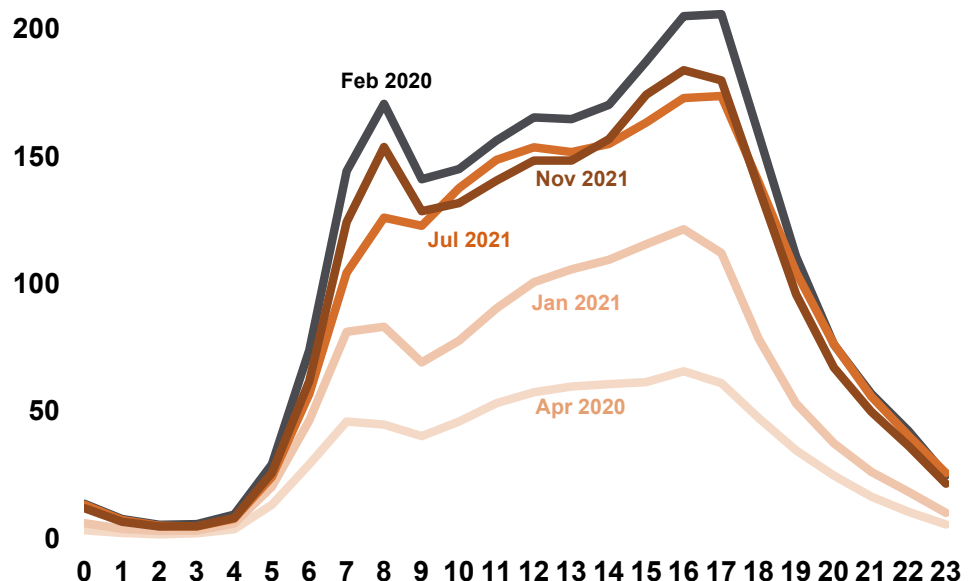
The February 2020 figures show a standard hourly profile of traffic with peaks between 7am-9am and 4pm-5pm.

During the restrictions in January 2021, the hourly profile was lower across all hours of the day, but was less pronounced than the falls during April 2020.

After restrictions eased in July 2021, the morning peaks in traffic returned as shown by the November 2021 trend in the chart.

## Motor vehicle traffic by hour of day, selected months, 2020-2021

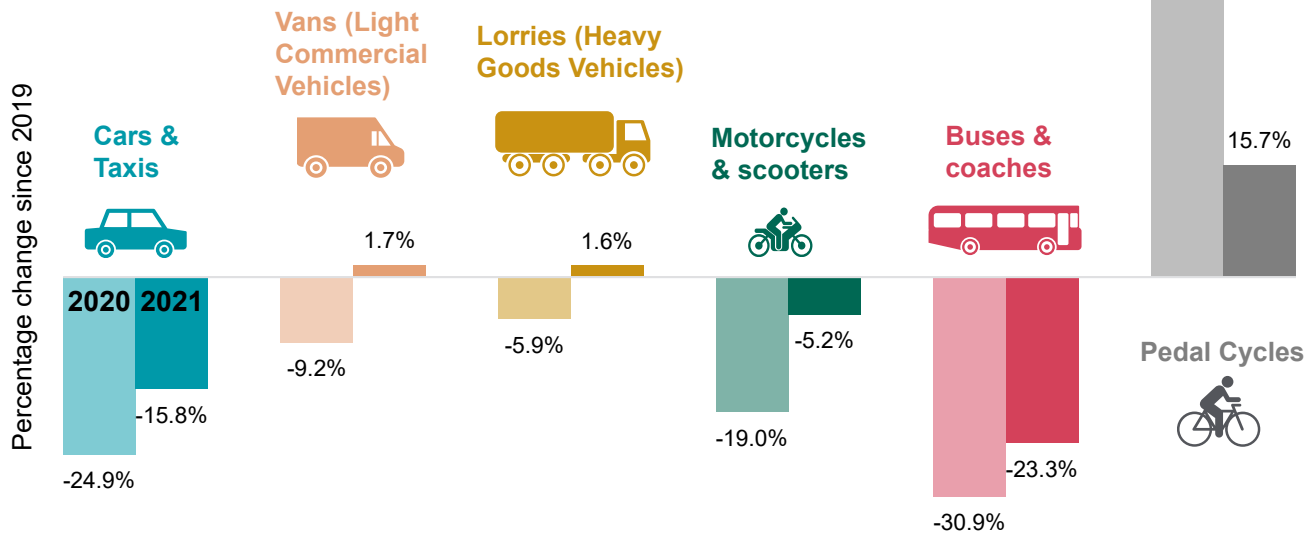
Index: 100 = same traffic as an average hour in the equivalent month in 2019



# Impact of coronavirus (COVID-19)

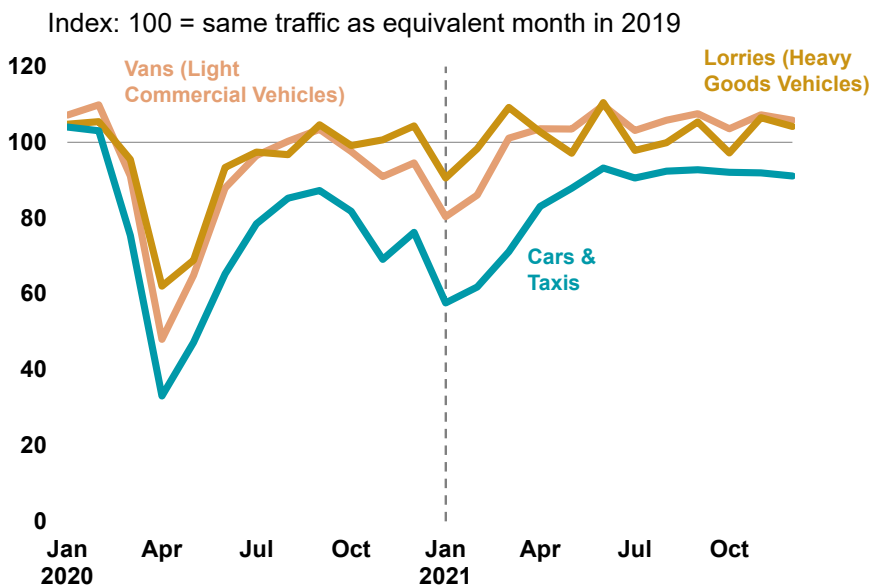
## Vehicle Types

Percentage change (in miles travelled) by vehicle type in Great Britain, 2020 and 2021 compared to 2019



Although all motor vehicle types saw an increase between 2020 and 2021, overall traffic levels remained below pre-pandemic levels in 2019. Car and motorcycle traffic saw the biggest increases, but still remained below pre-pandemic levels by -15.8% and -5.2%, respectively. Although van and lorry traffic experienced smaller increases in vehicle miles between 2020 and 2021, they rose above pre-pandemic levels by 1.7% and 1.6%, respectively. Conversely, pedal cycle traffic levels decreased between 2020 and 2021, but remained above 2019 levels by 15.7%.

## Monthly vehicle traffic trends by selected vehicle types, 2020 - 2021



In 2021, cars, vans and lorries all saw their lowest levels in January, following the announcement of Tier 4 restrictions coming into force in large parts of England on 26th December 2020.

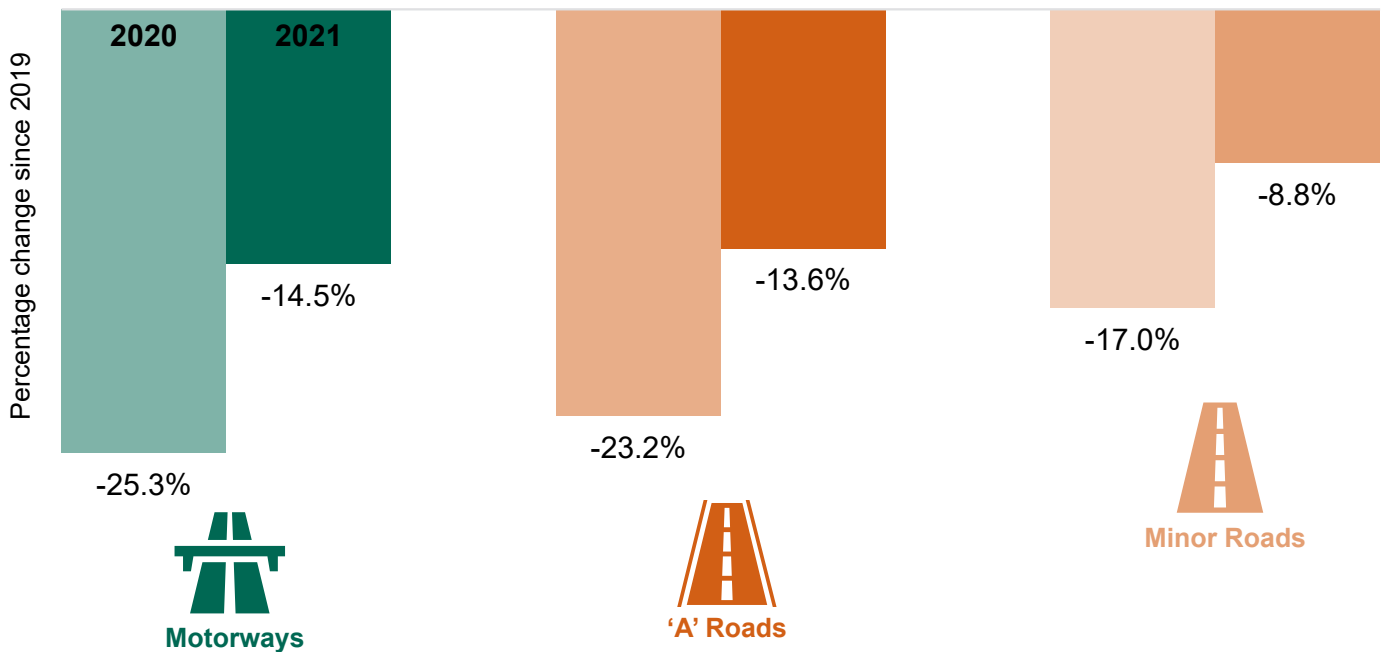
Car traffic was impacted more than other vehicle types and in January 2021 was 42% below the flows in January 2019. Van and Lorry traffic were less impacted, falling by 20% and 9% respectively.

As 2021 progressed, van and lorry vehicle traffic saw levels go above those seen in 2019. The biggest increase for both vehicle types occurred in June 2021 where levels were both 10% higher than the equivalent month in 2019. Car and taxi traffic gradually increased throughout 2021 and since July 2021 (following the lifting of all covid related restrictions on 19 July 2021) were between 91% and 93% of the levels for the equivalent months in 2019.

# Impact of coronavirus (COVID-19)

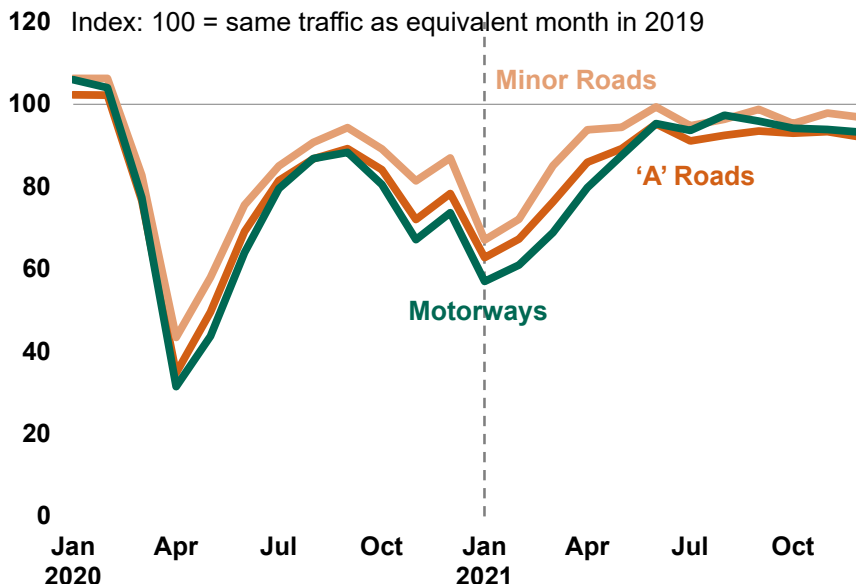
## Road Types

Percentage change in miles travelled by road type in Great Britain, 2020 and 2021 compared to 2019



Although all road types saw an increase between 2020 and 2021, levels remained below pre-pandemic levels in 2019. Motorway and 'A' road traffic saw the biggest rise between 2020 and 2021, but remained below 2019 levels by -14.5% and -13.6%, respectively. Minor roads experienced a smaller rise in vehicle miles, between 2020 and 2021 and in 2021 were -8.8% below pre-pandemic levels.

## Monthly vehicle traffic trends by road type, 2020 - 2021



In 2021, motorways, 'A' roads and minor roads all saw their lowest levels in January, following the announcement of Tier 4 restrictions coming into force in large parts of England on 26th December 2020.

Motorway, 'A' road and minor road flows in January 2021 dropped by 43%, 37% and 33% respectively, compared to flows in January 2019.

As 2021 progressed, traffic increased on all road types. In August 2021 (following the lifting of all covid related restrictions on 19 July 2021) traffic on motorways, 'A' roads and minor roads were 3%, 8% and 4% lower than levels seen in August 2019. Since August 2021, monthly traffic on all road types has been less than 10% below the equivalent monthly traffic levels in 2019.

# Impacts of road traffic during COVID-19

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

The final 2021 statistics are not yet available for this area. Provisional figures for 2021 estimated that there were 1,560 reported road deaths, a reduction of 12% compared to the 2017 - 2019 average. In comparison to 2020, there were increases in casualties of all severities in 2021, though pedal cyclists showed a reduction in fatalities (-20%). Monthly changes in overall casualties compared to 2020 generally showed a similar trend to changes in motor traffic levels.

Decreases in traffic tend to lead to smaller numbers of interactions between road users. Therefore, all else being equal, a fall in traffic is expected to decrease the total number of accidents. However, there are a range of reasons for differing changes in road traffic and road accidents. These include: 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.

## Journey times and reliability

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

On the Strategic Road Network (SRN) for 2021, the average delay increased by 16.4% compared to 2020. This is a larger increase than that in traffic levels (14.6%), reflecting the complex relationship between traffic and congestion.

The average speed on local 'A' roads in England across 24 hours in 2021 was estimated to be 24.1 mph. Due to changes in the provider for local 'A' roads data, there has been a step change in average speeds from 2021 onwards. Therefore, it is not possible to compare average speeds from 2021 to those prior.

## Greenhouse gas emissions and air quality

2021 statistics are not yet available this area. Provisional 2021 figures estimate that Carbon dioxide (CO<sub>2</sub>) emissions in the UK increased by 6.3% in 2021 from 2020, to 341.5 million tonnes (Mt). CO<sub>2</sub> emissions from transport increased by 10% in 2021, this was the largest increase for any sector in 2021.

Statistics for the 2021 road transport element of the CO<sub>2</sub> emissions from transport were not available at the time of publication. In 2020, road transport accounted for 31% of the UK's CO<sub>2</sub> emissions.

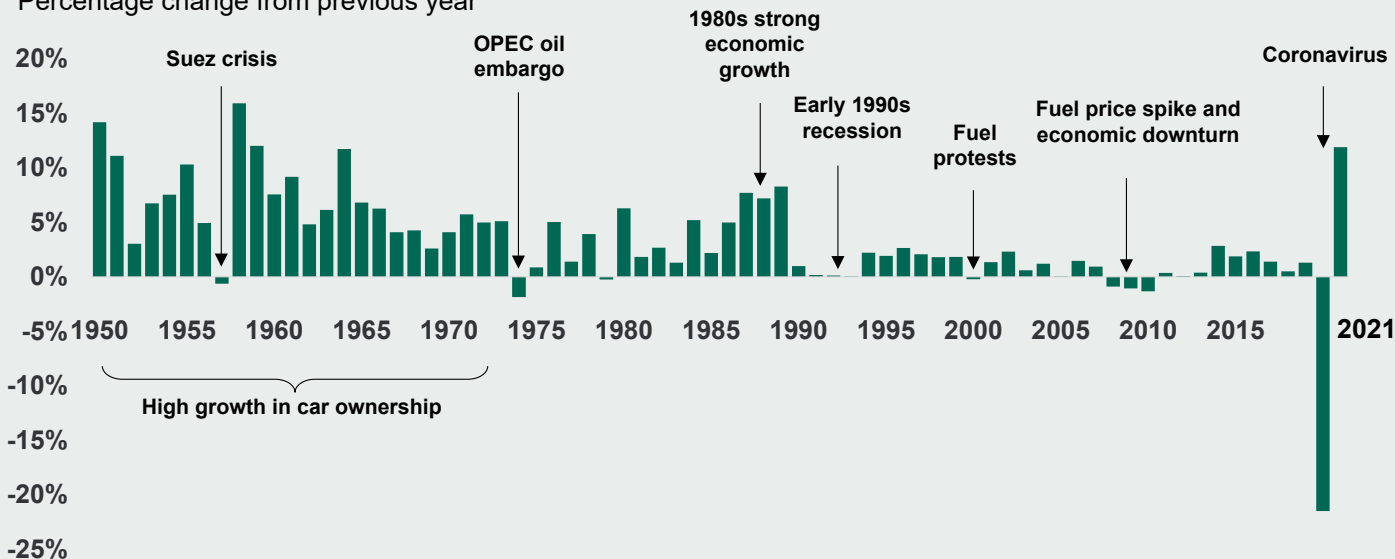


# Long-term traffic trends

The impact of the coronavirus pandemic saw 2020 and 2021 have among the the biggest single-year impacts on road traffic since records begin in 1949.

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

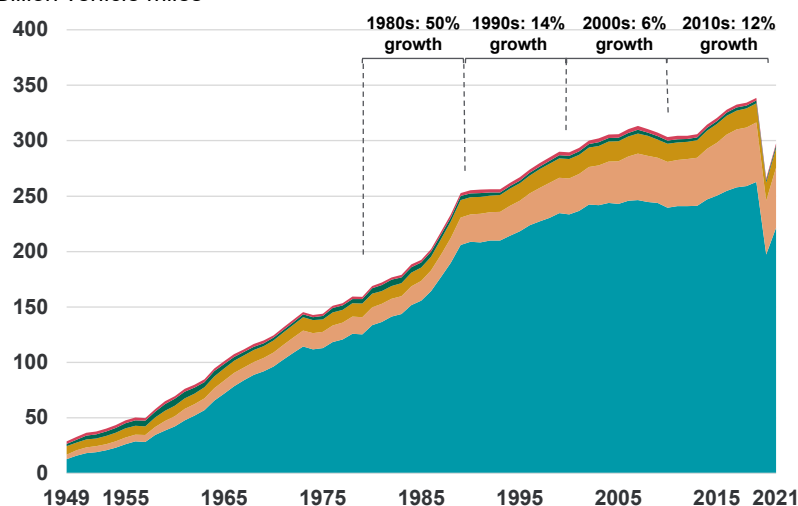
Percentage change from previous year



Between 1949 and 2019 motor vehicle traffic had increased over eleven-fold from 28.9 to 338.6 billion vehicle miles, largely driven by steady growth in car traffic. Car traffic in 2019 was around 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%.

## Motor vehicle traffic in Great Britain, since 1949

Billion vehicle miles



	Changes:	
	1949 - 2019	2019-2021
Buses & coaches	-6%	-23.3%
Motorcycles & scooters	+41%	-5.2%
Lorries (Heavy Goods Vehicles)	+121%	1.7%
Vans (Light Commercial Vehicles)	+1204%	1.6%
Cars & Taxis	+1984%	-15.8%
All motor vehicles	+1072%	-12.1%

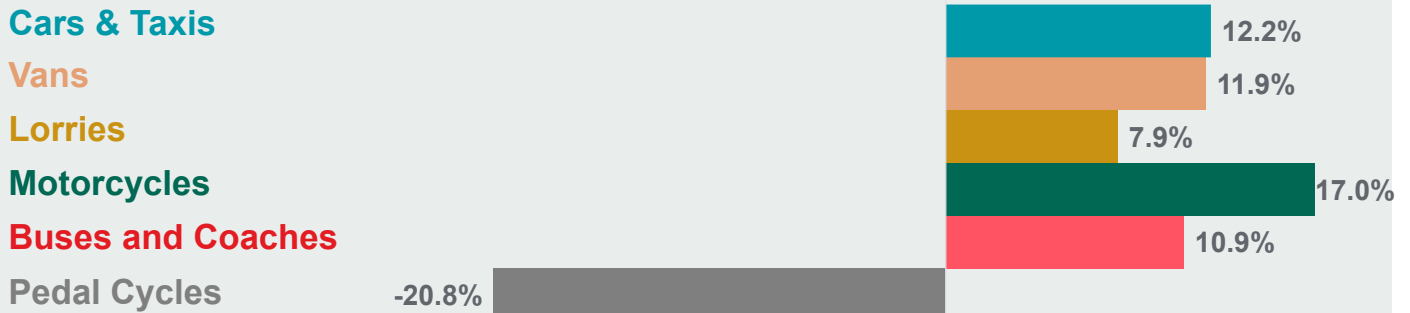
In contrast to motor vehicle traffic, pedal cycle traffic (on public highways, and the cycle paths and footpaths adjacent to them) fell rapidly during the 1950s and 1960s, followed by a period of relative stability. Between 2000 and 2019, there were steady rises in cycle miles. In 2020, there was a 46.1% increase on the 2019 levels to 5.3 billion cycle miles. In 2021, pedal cycle levels dropped by 20.8% on the 2020 levels to 4.2 billion cycle miles but remain above 2019 levels (by 15.7%).

# Road Traffic by Vehicle Type

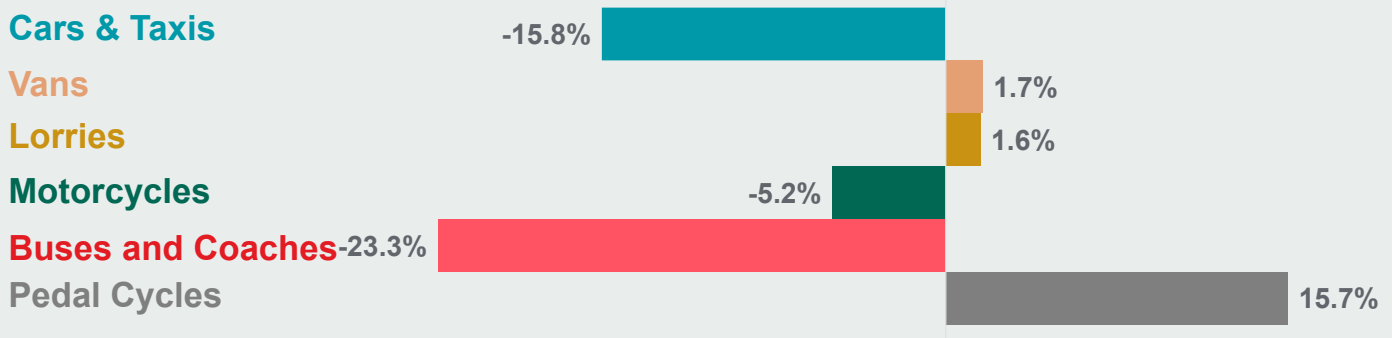
All motor vehicle types saw an increase in traffic levels during 2021 compared to 2020. However, car, motorcycle and bus traffic remained below the pre-pandemic 2019 levels, whereas van and lorry traffic were slightly above.

## Change in miles travelled by vehicle type in Great Britain

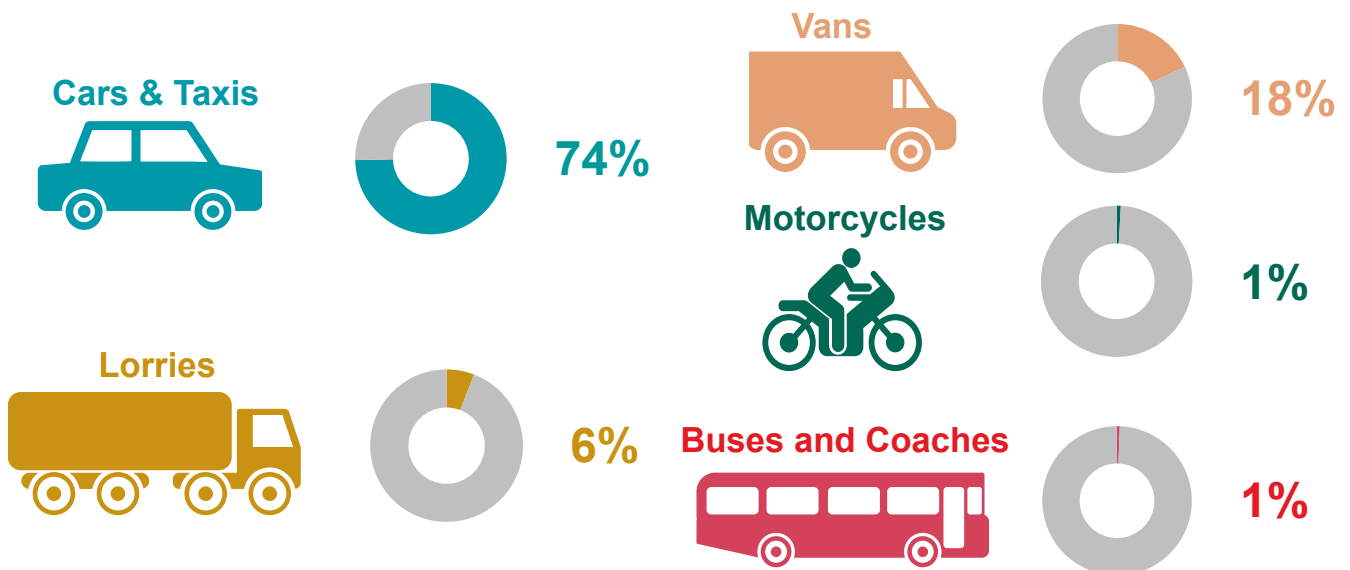
### 2021 compared to 2020



### 2021 compared to 2019



## Share of traffic by vehicle type, vehicle miles 2021 (% of total):

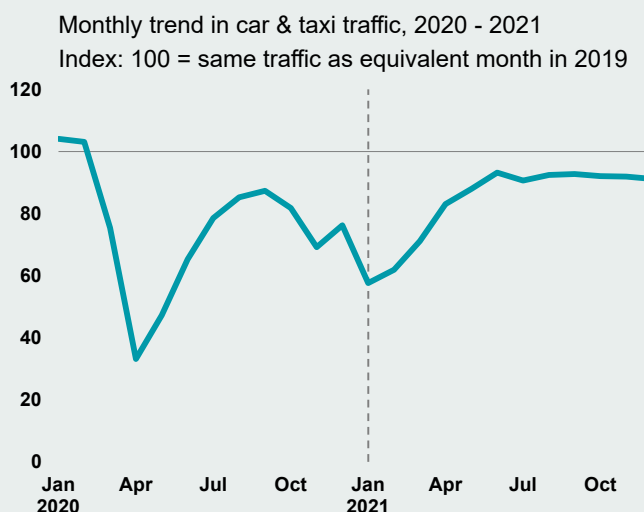
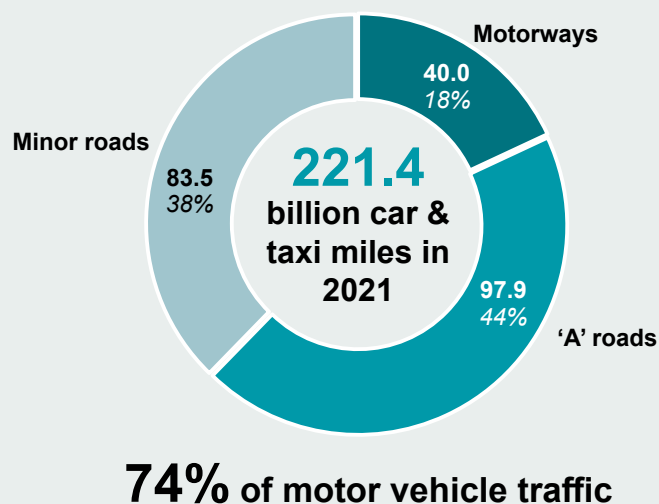






## Cars & taxis

Compared with 2020, car and taxi traffic in Great Britain increased by 12.2% to 221.4 billion vehicle miles in 2021. Compared with 2019, car and taxi traffic in Great Britain decreased by 15.8% in 2021.



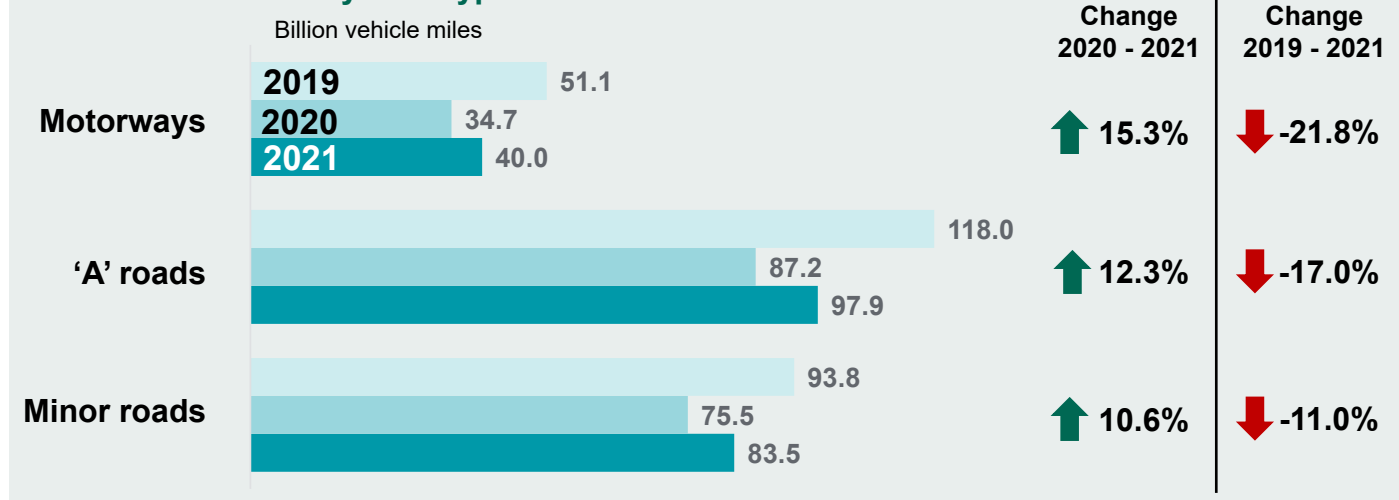
Car traffic saw its lowest monthly levels during 2021 in January, following the announcement of Tier 4 restrictions coming into force in large parts of England on 26th December 2020. Car and taxi traffic gradually increased throughout the year and, following the lifting of all covid related restrictions on 19 July 2021, was less than 10% lower than the levels for the equivalent months in 2019.

Car traffic increased on all road types between 2020 and 2021:

- ▶ Motorways traffic saw the biggest increased, rising by 15.3%
- ▶ 'A' roads traffic increased by 12.3%.
- ▶ Minor roads traffic increased by 10.6%.

Car traffic remained below 2019 levels on all road types in 2021. It decreased on motorways, 'A' roads and minor roads by 21.8%, 17.0% and 11.0%, respectively.

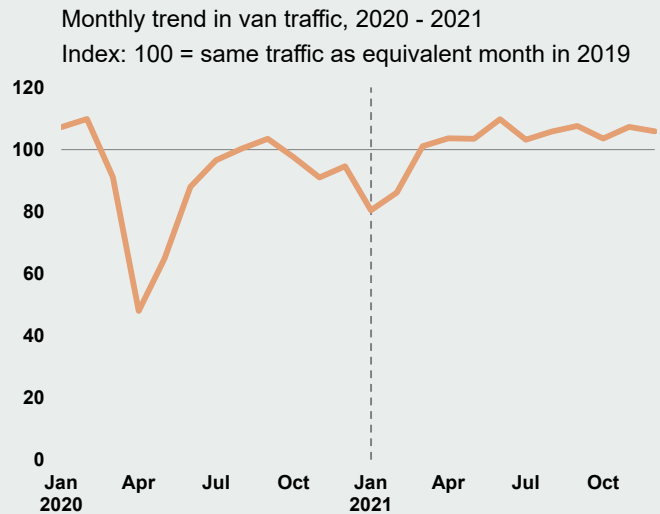
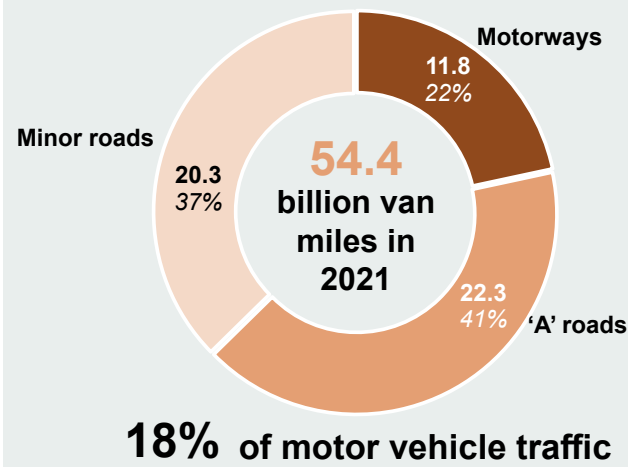
### Car miles travelled by road type in Great Britain





## Vans (Light Commercial Vehicles)

Compared with 2020, van traffic in Great Britain increased by 11.9% to 54.4 billion vehicle miles in 2021. Van traffic in 2021 was 1.7% higher than 2019 levels.

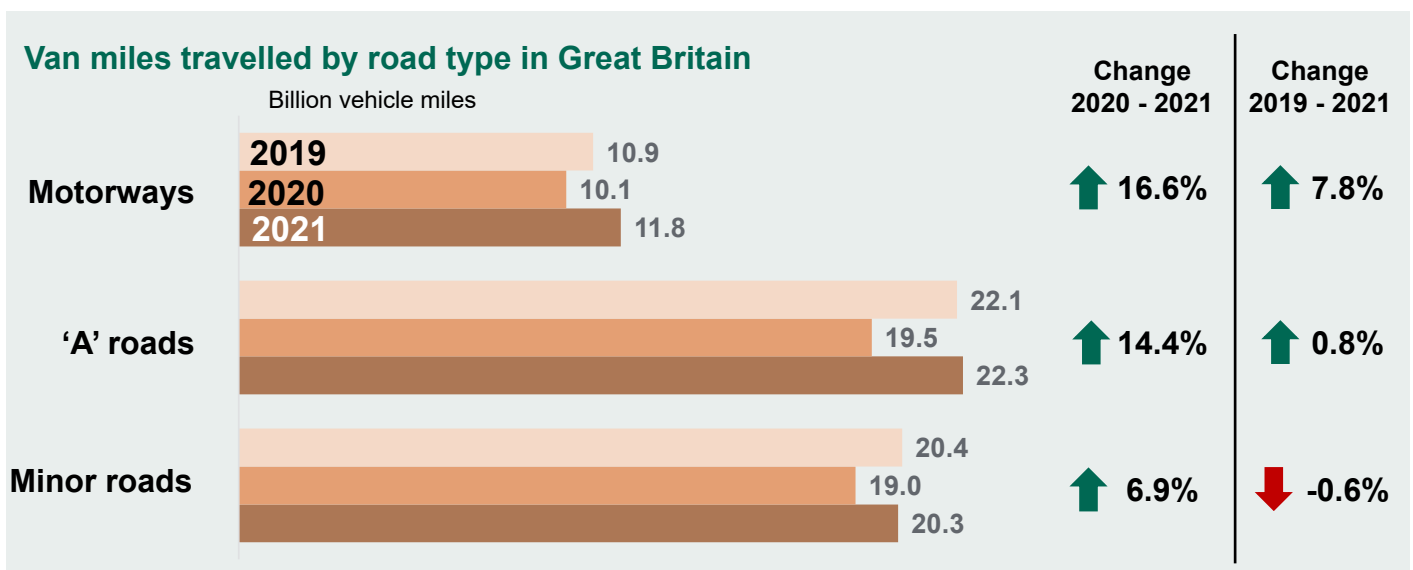


Van traffic saw its lowest monthly levels during 2021 in January, following the announcement of Tier 4 restrictions coming into force in large parts of England on 26th December 2020. Since March 2021, monthly trends in van traffic have all been above levels seen in the equivalent month in 2019. The biggest increase occurred in June 2021 where levels were 10% higher than those seen in June 2019.

Van traffic increased on all road types between 2020 and 2021:

- ▶ Van traffic on motorways saw the biggest increase of 16.6%.
- ▶ 'A' road van traffic increased by 14.4%.
- ▶ Minor road van traffic increased by 6.9%.

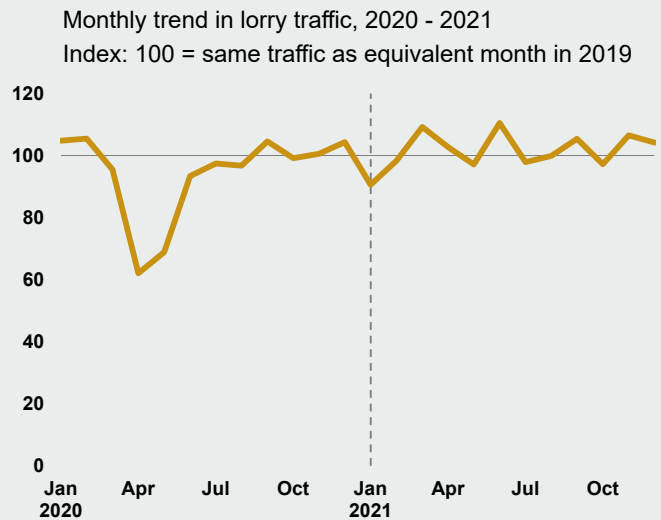
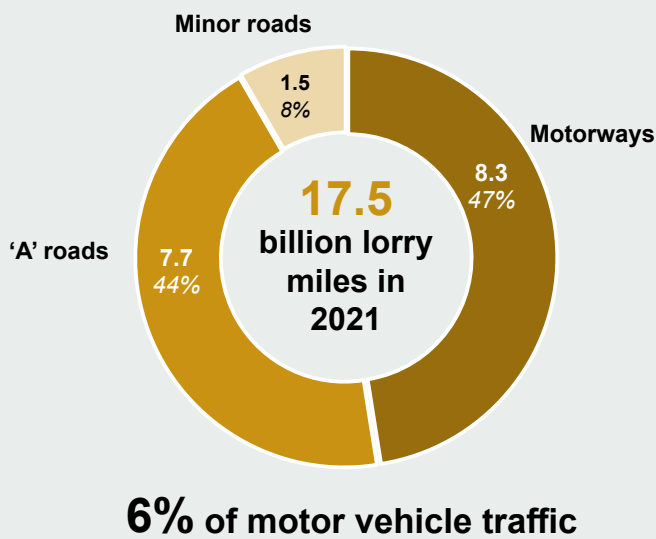
Compared to 2019, van traffic on motorways saw an increase of 7.8%. 'A' road traffic increased very slightly by 0.8% on 2019 levels. Van traffic on minor roads in 2021 was very slightly lower than the 2019 pre-pandemic levels, a decrease of 0.6%.





## Lorries (Heavy Goods Vehicles)

In 2021 lorries travelled 17.5 billion vehicle miles, an increase of 7.9% when compared with 2020. Lorry traffic in 2021 was 1.6% higher than 2019 levels.



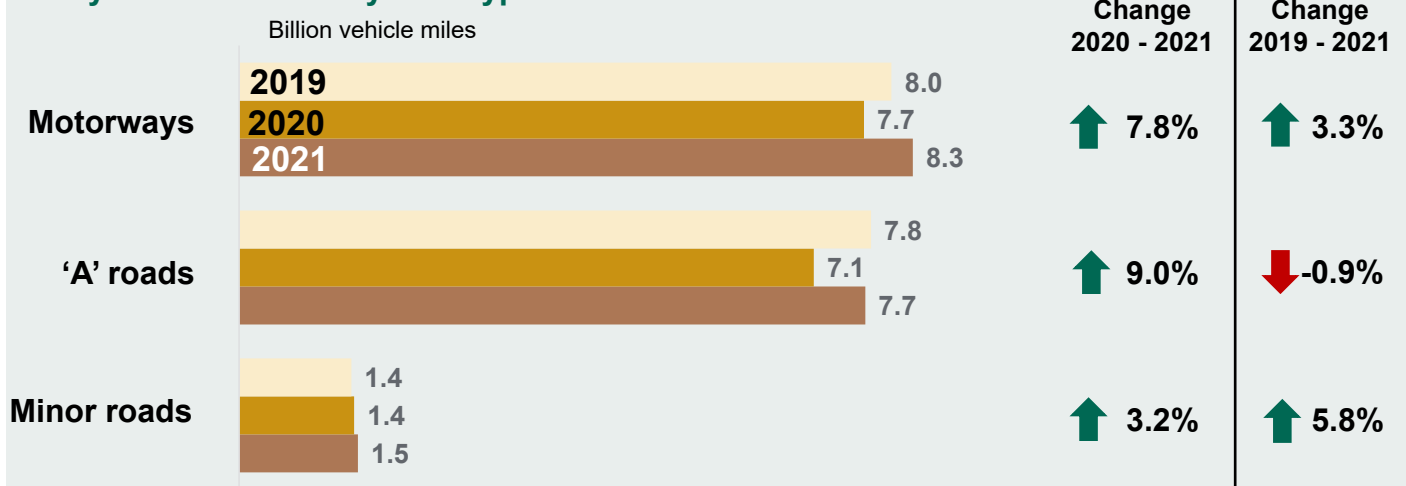
Lorry traffic saw its lowest monthly levels during 2021 in January, following the announcement of Tier 4 restrictions coming into force in large parts of England on 26th December 2020. Throughout 2021, monthly lorry traffic was between within 10% of the levels of the equivalent month in 2019. The biggest differences were seen in January (9% lower) and June (10% higher).

Lorry traffic increased on all road types between 2020 and 2021:

- ▶ Lorry traffic on 'A' roads saw the biggest increase, rising by 9.0%.
- ▶ Motorway traffic increased by 7.8%.
- ▶ Traffic rose by 3.2% on minor roads.

Compared to 2019, lorry traffic on motorways and minor roads saw increases of 3.3% and 5.8% respectively. Lorry traffic on 'A' roads was very slightly below pre-pandemic 2019 levels, a decrease of 0.9%.

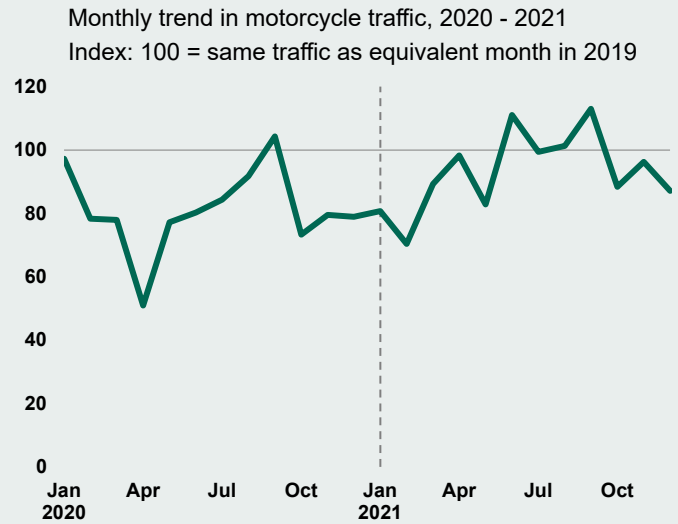
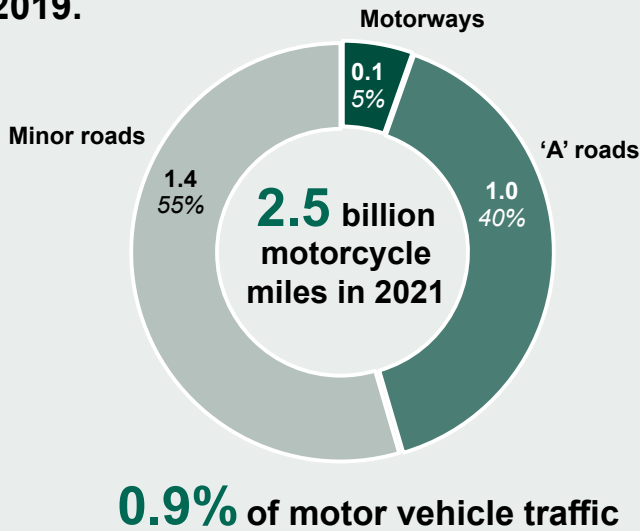
### Lorry miles travelled by road type in Great Britain





## Motorcycles & scooters

Motorcycle and scooter (excluding e-scooter) traffic rose by 17.0% in 2021 compared to 2020. Motorcycle traffic in 2021 decreased by 5.2% compared to 2019.



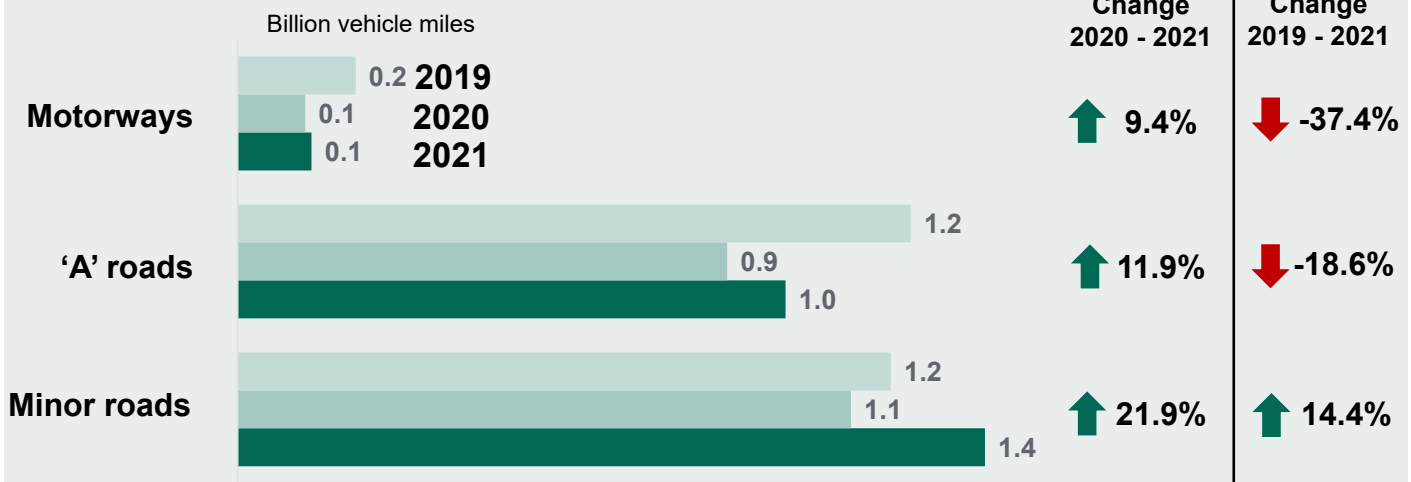
Motorcycle traffic saw its lowest monthly levels during 2021 in January and February, following the announcement of Tier 4 restrictions coming into force in large parts of England on 26th December 2020. Monthly motorcycle traffic in 2021 was only higher than pre-pandemic 2019 levels in three months (11% higher in June, 1% higher in August and 13% higher in September).

Between 2020 and 2021, motorcycle traffic increased on all road types:

- ▶ Motorcycle traffic on motorways increased by 9.4%
- ▶ 'A' roads traffic increased by 11.9%
- ▶ Motorcycle traffic on minor roads saw an increase of 21.9%.

Motorcycle traffic on motorways and 'A' roads in 2021 remained below the pre-pandemic 2019 levels by 37.4% and 18.6%, respectively. Motorcycle traffic on minor roads increased by 14.4% on 2019 levels.

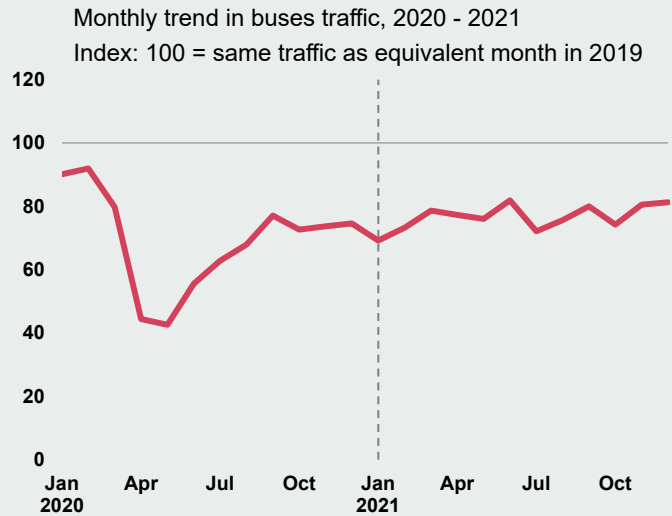
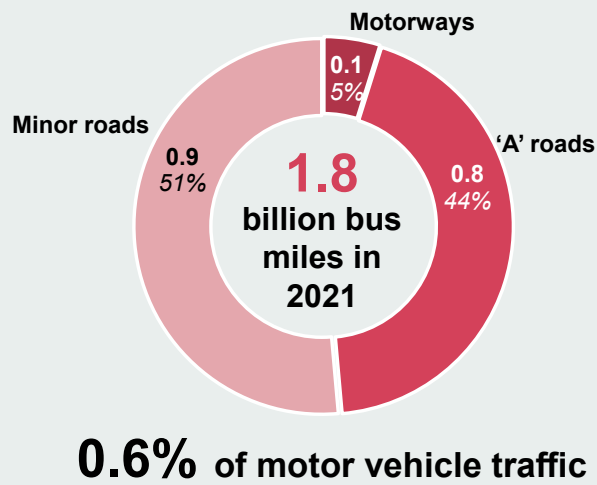
### Motorcycle miles travelled by road type in Great Britain





## Buses & coaches

Bus and coach traffic rose by 10.9% between 2020 and 2021. Compared to 2019, bus and coach traffic fell by 23.3% in 2021.

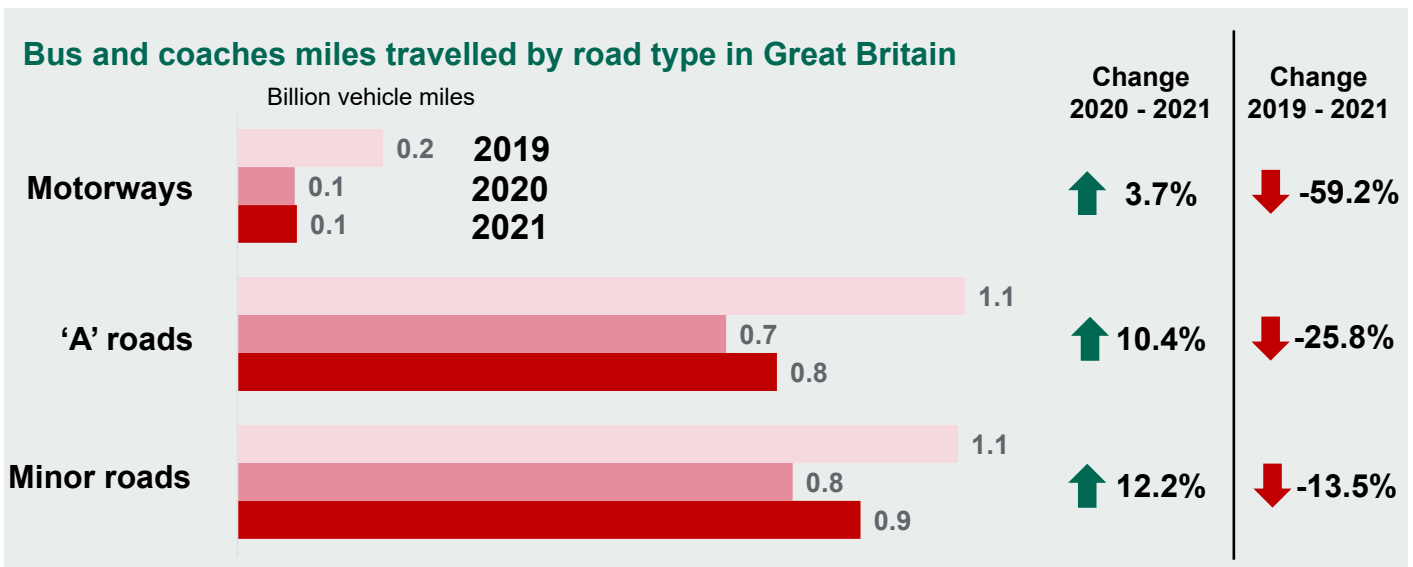


Bus traffic saw its lowest monthly levels during 2021 in January, following the announcement of Tier 4 restrictions coming into force in large parts of England on 26th December 2020. Throughout 2021, monthly bus traffic levels were at least 18% lower than when compared to the equivalent month in 2019.

Bus traffic increased on all road types between 2020 and 2021:

- ▶ Bus traffic on minor roads saw the biggest increase, rising by 12.2%.
- ▶ Traffic on motorways increased by 3.7%.
- ▶ Traffic rose by 10.4% on 'A' roads.

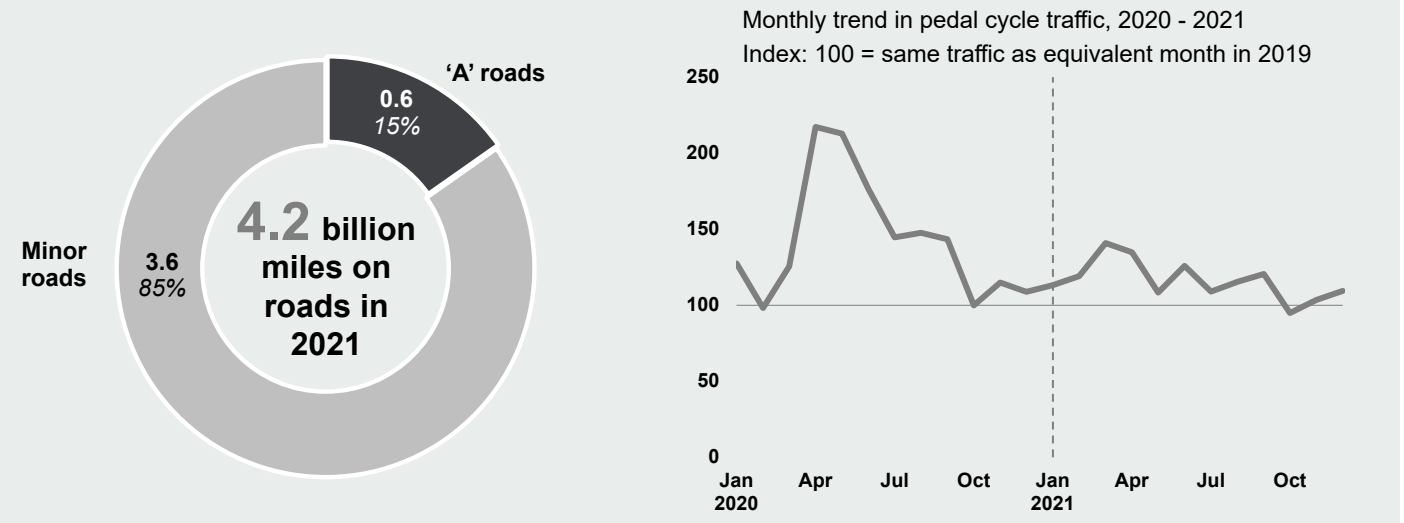
Bus traffic in 2021 remained below pre-pandemic 2019 levels on all road types; motorways, 'A' roads and minor roads saw decreases of 59.2%, 25.8% and 13.5%, respectively.





## Pedal cycles

**Pedal cycles travelled 4.2 billion miles on roads\* in 2021, 20.8% less than in 2020. Pedal cycle traffic was 15.7% higher than in 2019.**



Monthly pedal cycle traffic levels in 2021 were higher than the equivalent months in 2019, except in October 2021. The highest levels of traffic were seen in March and April. During these months, traffic levels were 41% and 35% higher than the equivalent month in 2019, respectively. Note that cycling levels are likely to be influenced by the weather in all months and their 2019 comparators.

Pedal cycle traffic decreased on all road types between 2020 and 2021:

- ▶ Traffic on minor roads saw the biggest decrease, falling by 21.4%.
- ▶ Traffic on 'A' roads decreased by 16.8%.

Pedal cycle traffic on 'A' roads was slightly below pre-pandemic 2019 levels, by 1.1%. 2021 cycle levels on minor roads remained above the pre-pandemic 2019 levels, an increase of 19.4%.

### Pedal cycle miles travelled by road type in Great Britain



### \*Cycling on roads

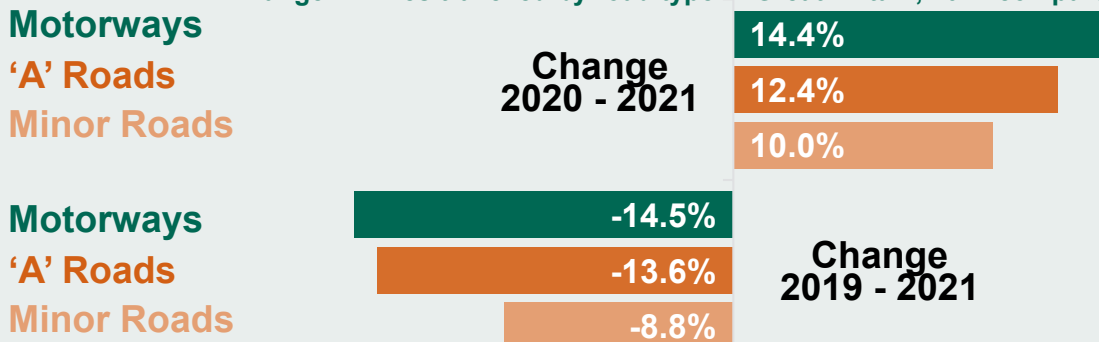
DfT road traffic statistics report activity of cyclists on public highways, and on cycle paths and footpaths adjacent to them. Cycle activity elsewhere (for example on canal towpaths, byways or bridleways) is not included in road traffic statistics. [DfT Statistics on walking and cycling](#) provide further analyses from other sources, such as the National Travel Survey (NTS).

# Traffic by Road Classification

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).

**All road types saw an increase in traffic levels during 2021 compared to 2020 and a decrease in when comparing 2021 levels to 2019.**

Change in miles travelled by road type in Great Britain, 2021 compared to 2019 & 2020

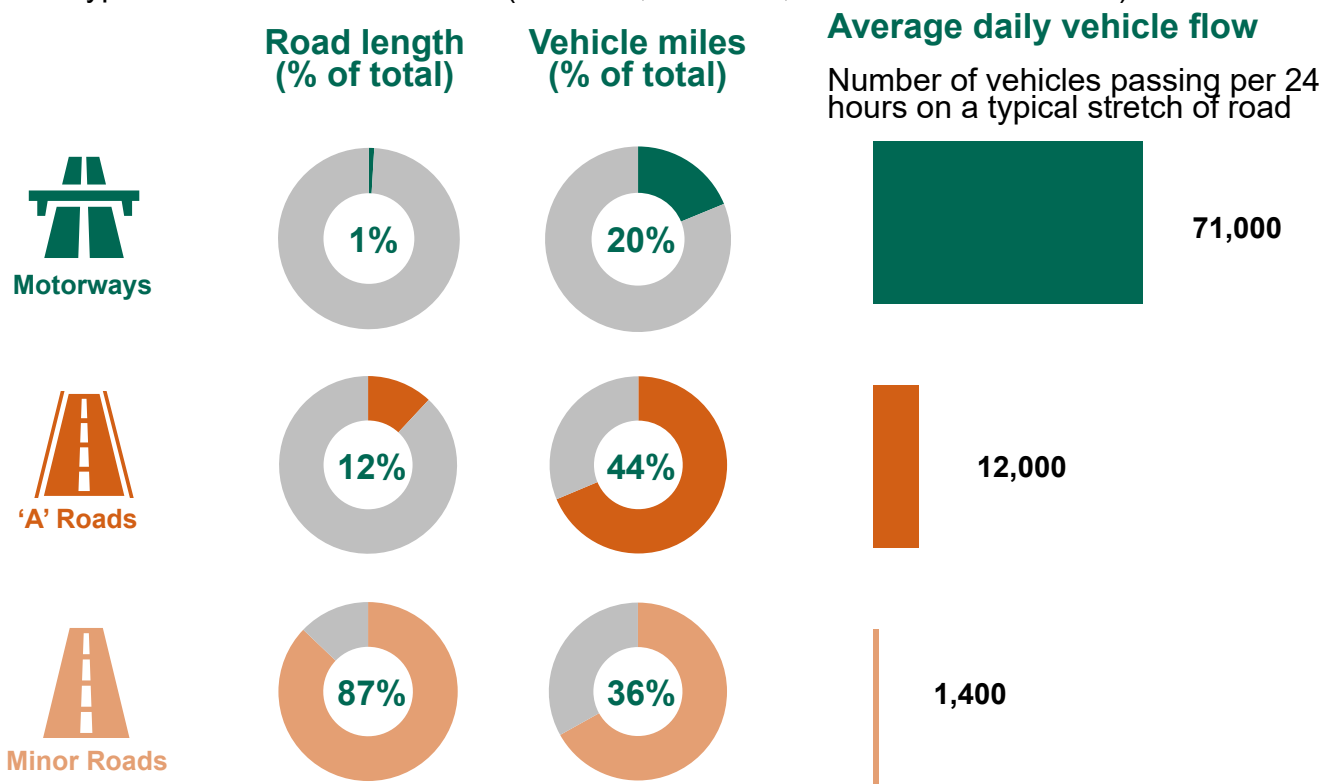


## Share of traffic by road type:

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

In 2021, 64% 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 2021, 52 times more vehicles travelled along a typical stretch of motorway than a typical stretch of a minor road ('B' roads, 'C' roads, and unclassified roads).



## Definitions

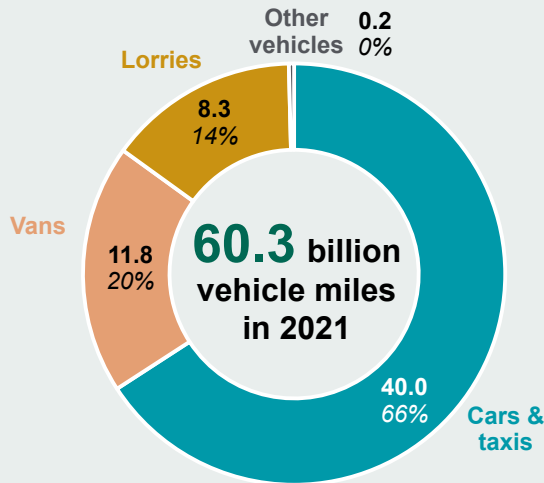
**Minor and Major:** Major roads include motorways and 'A' roads. Minor roads comprise 'B' roads, 'C' roads, and unclassified roads.





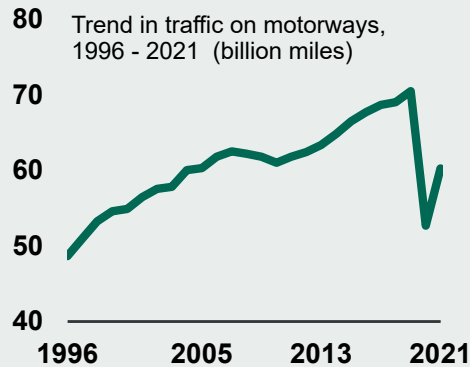
# Motorways

In 2021, 60.3 billion vehicle miles were travelled on Great Britain's motorways, an increase of 14.4% on the 2020 total. Compared to 2019, motorway traffic decreased by 14.5% in 2021.



1% of road length

20% of vehicle miles



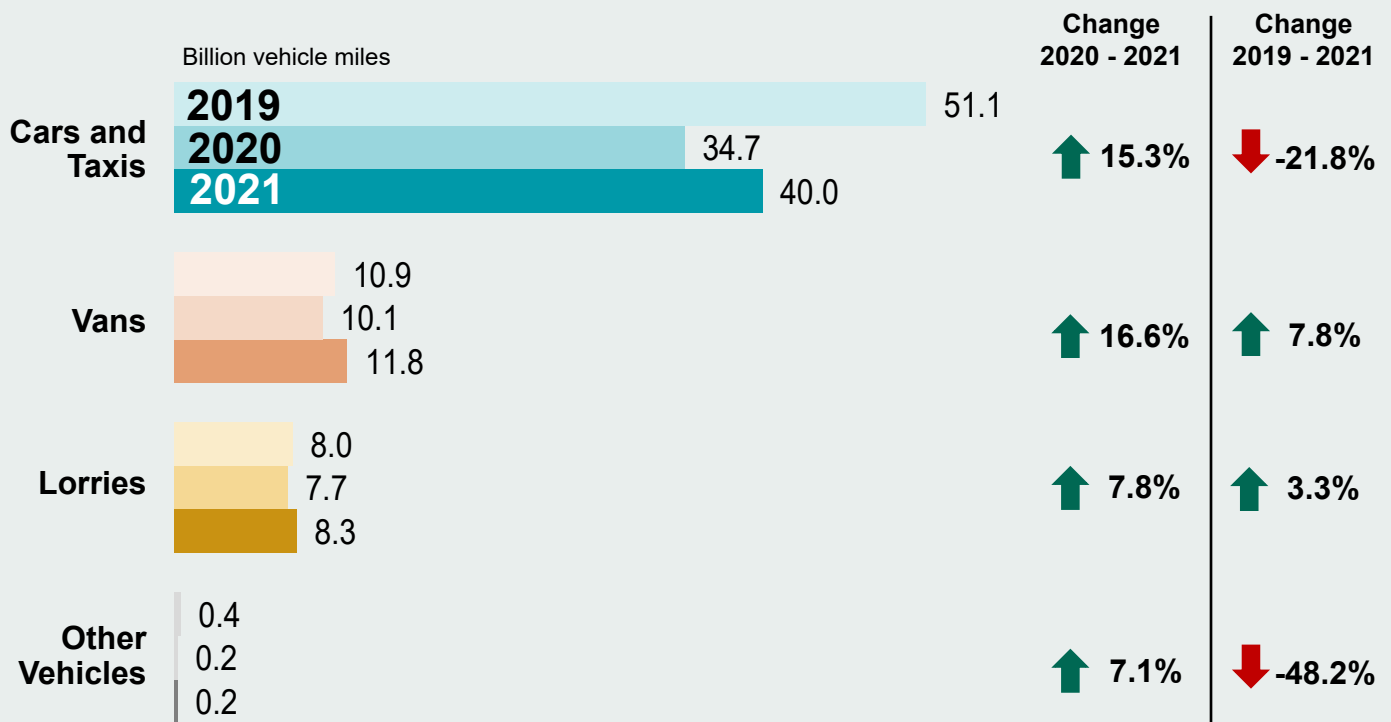
↑ 14.4% from 2020

↓ -14.5% from 2019

Motorway traffic increased by 14.4% between 2020 and 2021. Traffic levels on motorways increased for all vehicle types between 2020 and 2021. Car traffic saw an increase of 15.3%. Van and lorry traffic increases of 16.6% and 7.8%, respectively. Other vehicles (buses and coaches and motorcycles) saw the smallest increase, rising by 7.1%.

Compared to pre-pandemic 2019 levels, 2021 car traffic and other vehicle traffic remained lower, by 21.8% and 48.2%, respectively. Van and lorry traffic were both above 2019 levels, rising by 7.8% and 3.3%, respectively.

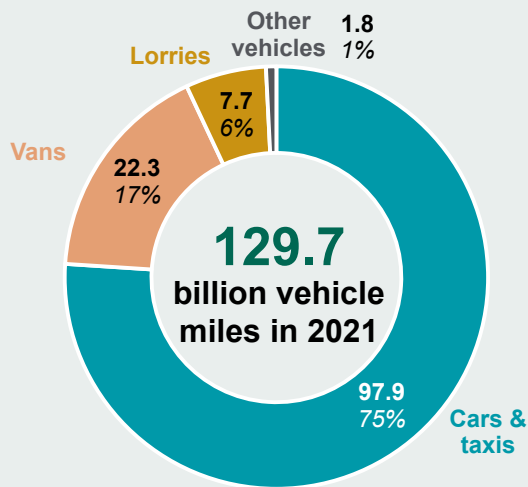
## Vehicle miles travelled on Motorways by vehicle type in Great Britain





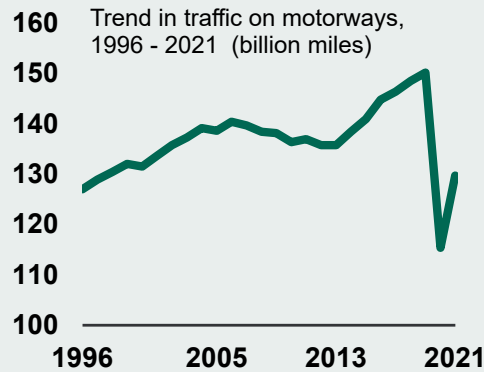
## 'A' roads

In 2021 129.7 billion vehicle miles were travelled on Great Britain's 'A' roads, an increase of 12.4% on the 2020 total. Compared to 2019, 'A' roads traffic decreased by 13.6% in 2021.



**12%** of road length

**44%** of vehicle miles



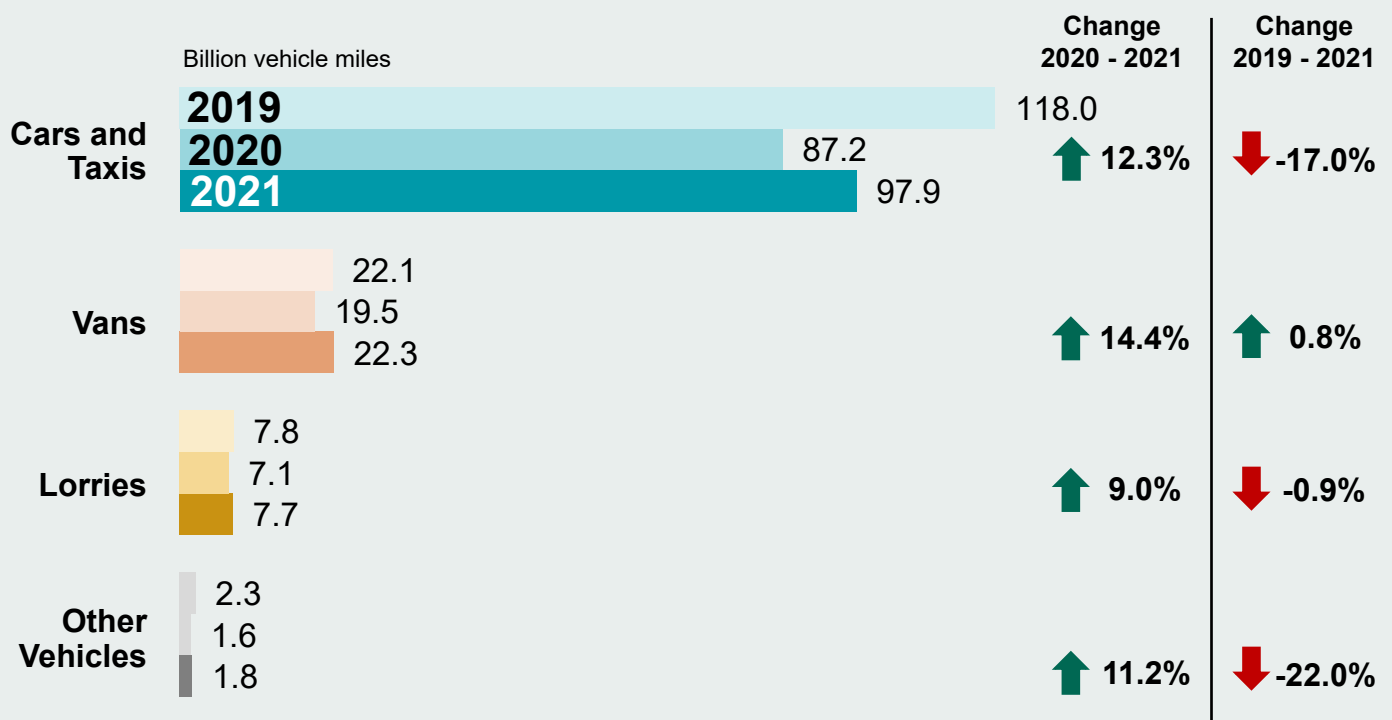
↑ **12.4%**  
from 2020

↓ **-13.6%**  
from 2019

Vehicle traffic on 'A' roads increased for all vehicle types between 2020 and 2021. Car traffic saw an increase of 12.3%. Van and lorry traffic saw increases of 14.4% and 9.0%, respectively. Other vehicles (buses and coaches and motorcycles) increased by 11.2%.

Compared to pre-pandemic 2019 levels, 2021 car, lorry and other vehicle traffic remained lower, by 17%, 0.9% and 22.0%, respectively. Vans were the only vehicle type to see an increase on 2019 levels, increasing slightly by 0.8%.

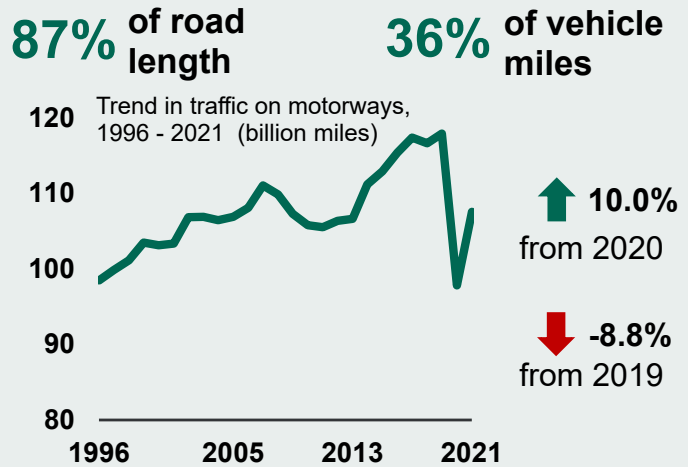
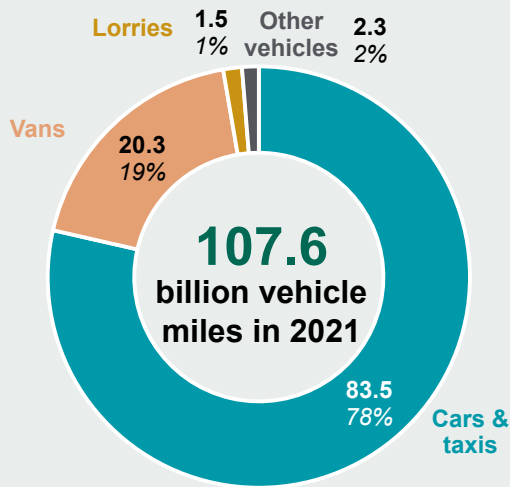
### Vehicle miles travelled on 'A' roads by vehicle type in Great Britain





## Minor roads

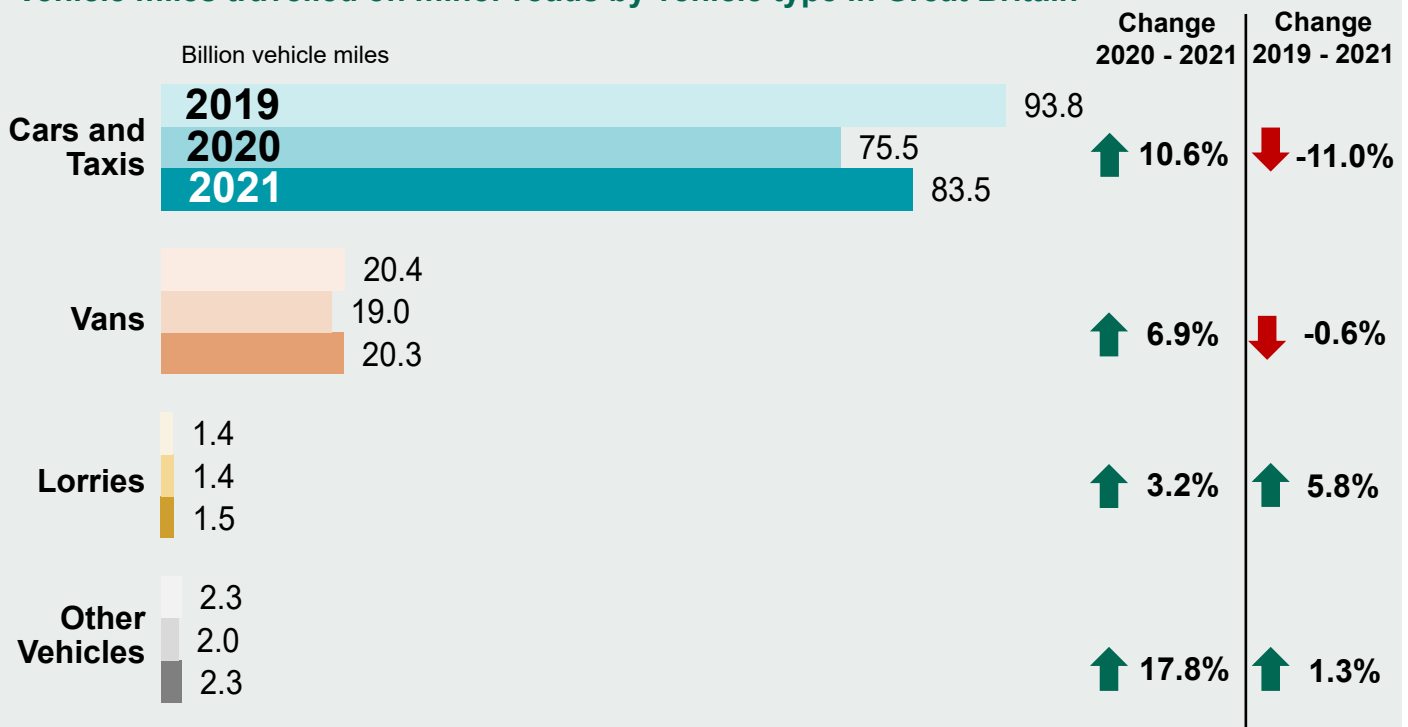
In 2021, 107.6 billion vehicle miles were travelled on Great Britain's minor roads, an increase of 10.0% on the 2020 total. Compared to 2019, minor road traffic decreased by 8.8% in 2021.



Minor road traffic experienced the smallest increase of any road type between 2020 and 2021, at 10.0%. Car and taxi traffic increased by 10.6%. Van and lorry traffic increased by 6.9% and 3.2%, respectively. Other vehicle traffic (buses and coaches and motorcycles) saw an increase of 17.8% in 2021.

Compared to pre-pandemic 2019 levels, 2021 car and van traffic remained lower, by 11.0% and 0.6%, respectively. Lorry and other vehicle traffic saw increases of 5.8% and 1.3%, respectively.

### Vehicle miles travelled on minor roads by vehicle type in Great Britain



### Minor Road Traffic Estimates Historic Revisions

Minor road traffic estimates from 2000 to 2020 have been revised as a result of a previously announced review. Further information on the review and the impact of the revisions can be found on page [29](#).

# The Strategic and Local Road Networks in England

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

## Overview

Compared with 2020, traffic increased on England's Strategic Road Network and the Local Road Networks in 2021. Compared to 2019, traffic decreased on all the different road networks in 2021.

Billion vehicle miles travelled in 2021:	Change 2020 - 2021:	Change 2019 - 2021:	AADF (Number of vehicles passing per 24 hours on a typical stretch of road)
Strategic Road Network 83.2	14.6%	-14.1%	50,200
Local Major Road Network 79.6	10.8%	-13.2%	13,700
Local Minor Road Network 91.6	9.4%	-9.2%	1,600

### In 2021 on the Strategic Road Network:

- ▶ Although the SRN makes up only 2.4% of England's road network, it carried 33% of all motorised traffic in England.
- ▶ **Car traffic** increased by 15.3% from 2020, to 56.1 billion vehicle miles. Compared to pre-pandemic 2019 levels, 2021 car traffic was 20.9% lower.
- ▶ **Van traffic** increased by 16.7% from 2020 levels to 16.1 billion vehicle miles. Compared to pre-pandemic 2019 levels, 2021 van traffic was 7.1% higher.
- ▶ **Lorry traffic** increased by 8.2% from 2020 levels to 10.6 billion vehicle miles. Compared to pre-pandemic 2019 levels, 2021 lorry traffic was 3.2% higher.

### In 2021 on the Local Road Networks:

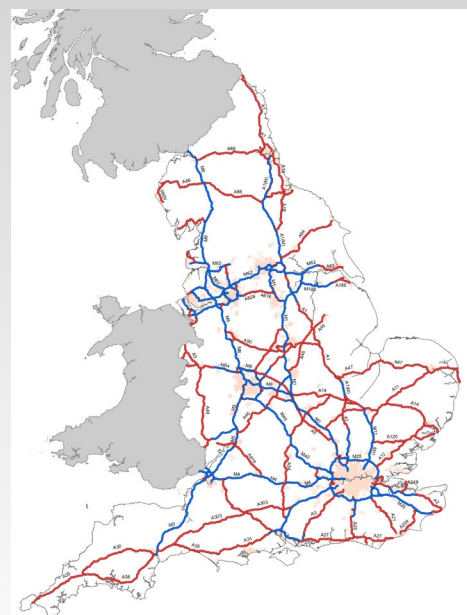
The local motorway and 'A' road network (major roads) carried 31% of traffic despite being only 9.4% of England's road length. The remaining traffic (36%) was on England's 'B', classified unnumbered and unclassified road network, which makes up 88% of road length in England.

### About the SRN

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

In 2021, the SRN comprised approximately 4,542 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.



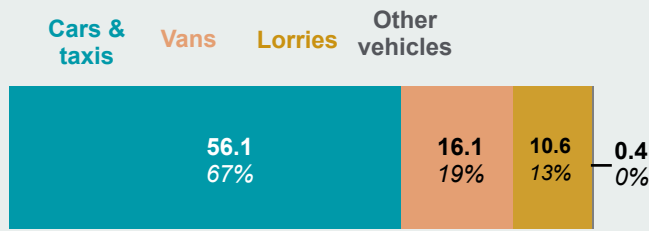
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Contains National Statistics data.  
Source: GISU2021J045, GIS Team, Department for Transport

## Strategic Road Network

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

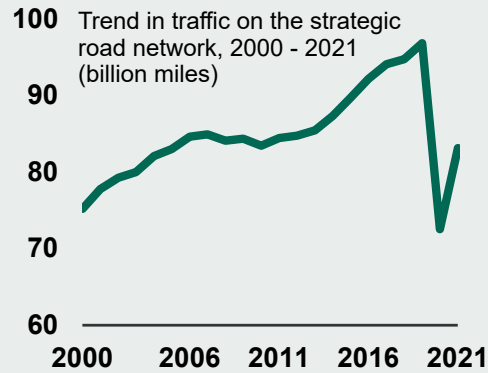
**83.2** billion vehicle miles in 2021

of which...



**2%** of road length

**33%** of vehicle miles



↑ **14.6%**  
from 2020

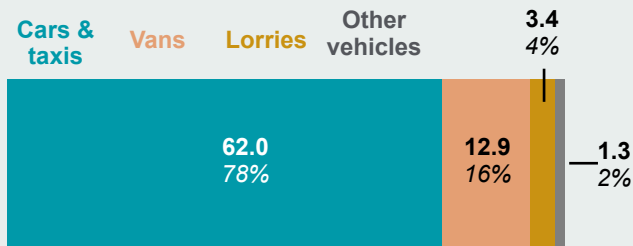
↓ **-14.1%**  
from 2019

## Local Major Road Network

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

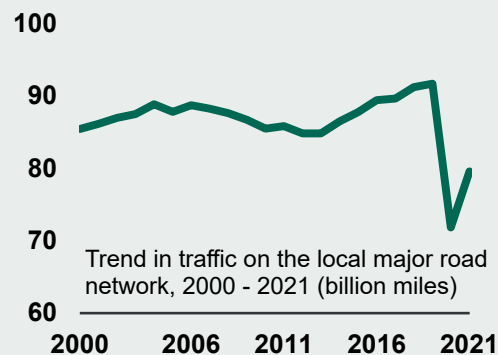
**79.6** billion vehicle miles in 2021

of which...



**9%** of road length

**31%** of vehicle miles



↑ **10.8%**  
from 2020

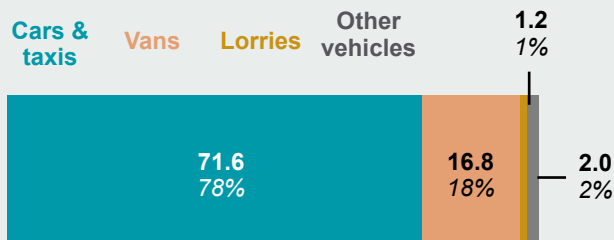
↓ **-13.2%**  
from 2019

## Local Minor Road Network

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

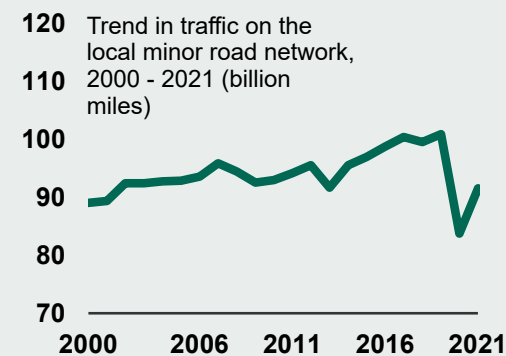
**91.6** billion vehicle miles in 2021

of which...



**88%** of road length

**36%** of vehicle miles



↑ **9.4%**  
from 2020

↓ **-9.2%**  
from 2019

## “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 National Highways (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:

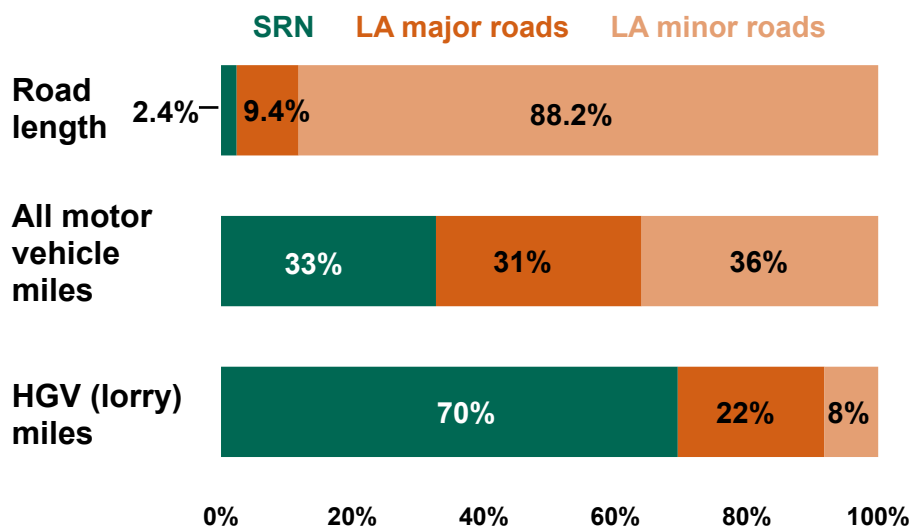
- Figures in tables TRA41 figures refer to the management status of a road on 1st April in each of the historic years;
- Figures in tables TRA42 figures refer to the management status of a road as of 1st April 2018 (“static management”), to remove the effect of changing road length on vehicle miles.

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

Traffic on the Strategic Road Network increased by 14.6% between 2020 and 2021. This was the largest increase of the different road networks in England, and reflects that the largest increases in traffic were seen on motorways. Compared to pre-pandemic 2019 levels, 2021 traffic on the SRN remained lower, by 14.1%.

Conversely, the minor road network saw the smallest increase in traffic in England between 2020 and 2021, of 9.4%.

### Road length and vehicle miles in England, 2021



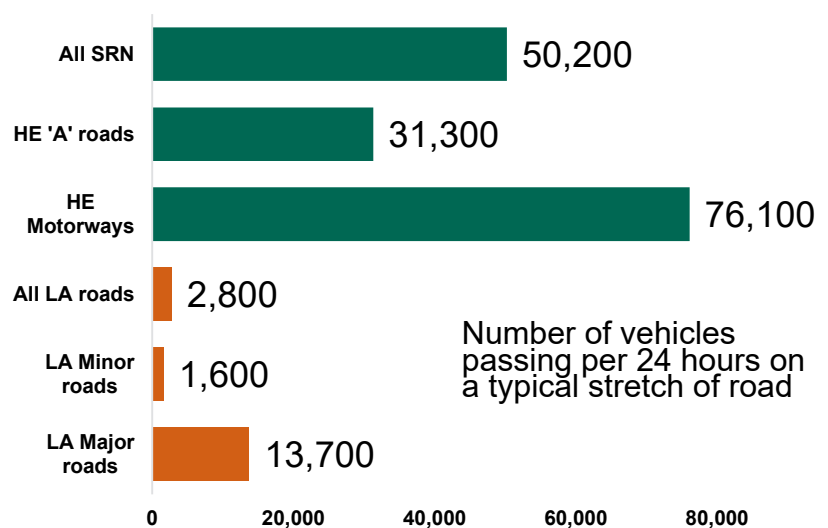
Despite making up only 2.4% of the road network by length in England, one third of all vehicle miles were driven on the SRN in 2021.

The SRN is particularly important for freight, with over one third of van miles and over two-thirds of lorry miles in England being driven on the SRN in 2021.

Over 50 thousand vehicles travel along a typical stretch of the strategic road network each day. This is over 3.5 times greater than the number for a typical stretch of locally managed major roads, at 13,700.

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

### Average daily vehicle flow by road type and management, England 2021



Number of vehicles passing per 24 hours on a typical stretch of road

### 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)

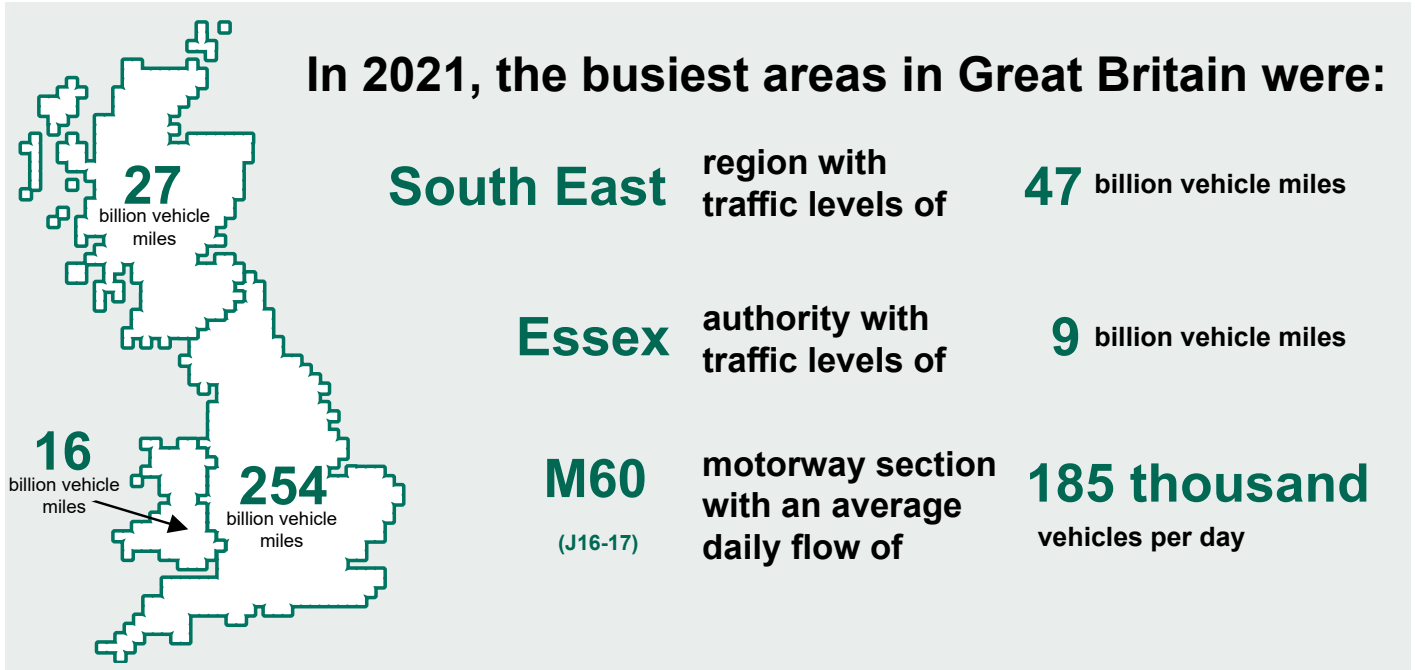
DfT report 'Use of the Strategic Road Network' - [www.gov.uk/government/statistics/use-of-the-strategic-road-network](http://www.gov.uk/government/statistics/use-of-the-strategic-road-network)

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

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.

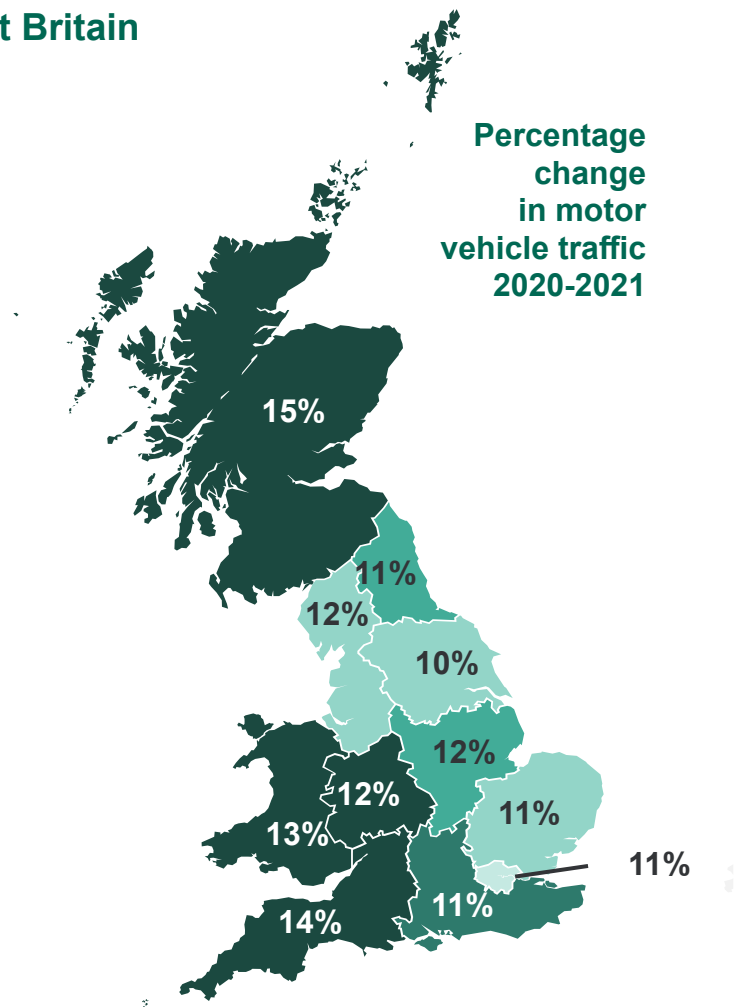


## Road traffic trends by regions of Great Britain

The South East region had the highest traffic levels in 2021, with 47 billion vehicle miles driven on its roads. This was 16% of all traffic in 2021. 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) two were 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 2021, all regions saw their traffic levels increase between 10% and 15% compared to their 2020 figures. The biggest increase was seen in Scotland (15.3%) and the smallest increase was seen in the Yorkshire and The Humber region (9.8%).

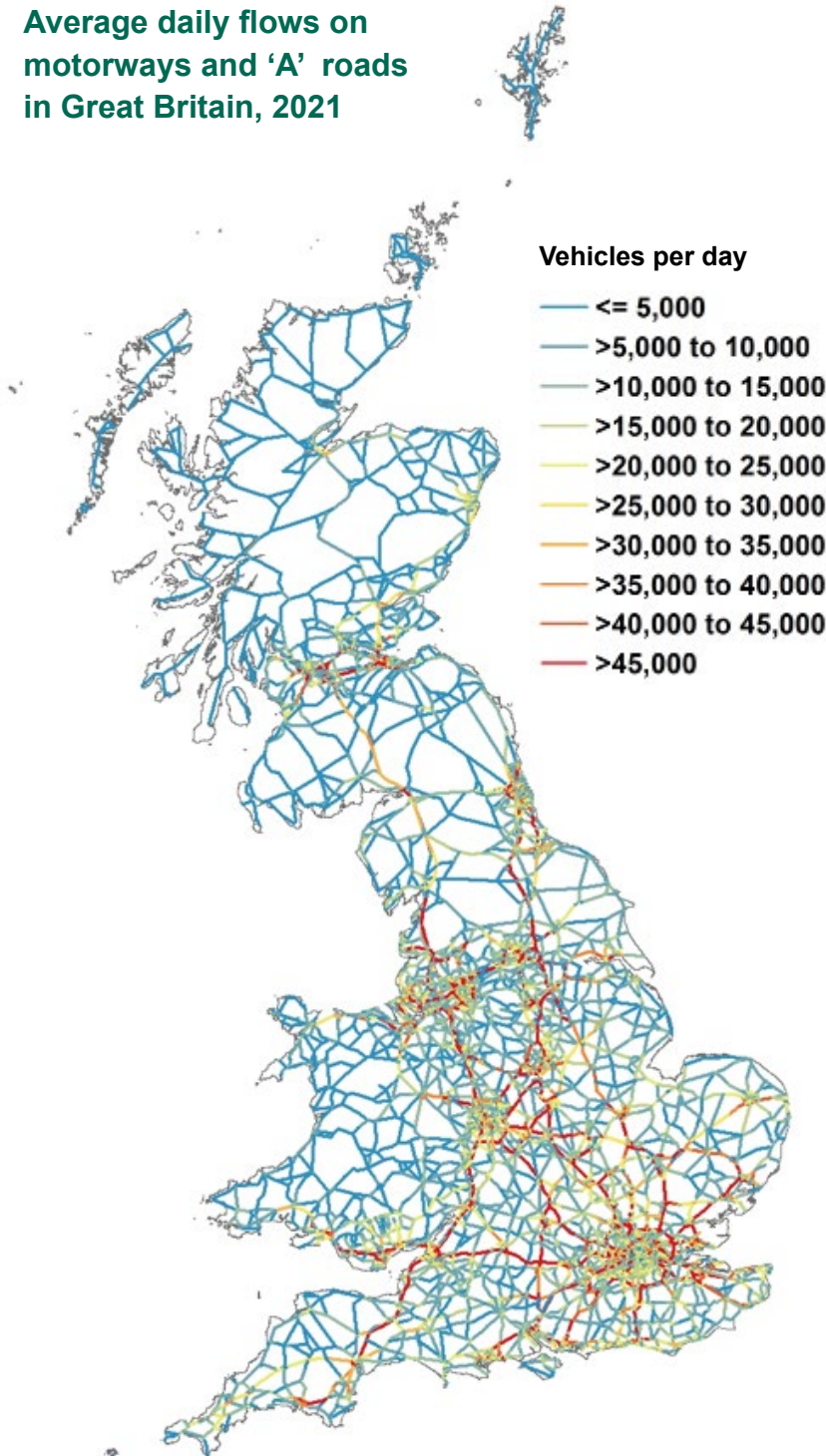




## Road-level traffic data for Great Britain

The DfT statistics produce an estimate of traffic flow (see definition on page 2), 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 2021 average flows for these roads are represented on the map.

### Average daily flows on motorways and 'A' roads in Great Britain, 2021



Average daily flows on motorway and 'A' road links in 2021 ranged from less than 5,000 vehicles to over 180,000.

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 link with the highest average daily traffic flows in 2021 was a section of the M60. Although the M60 is often one of the busiest links, this is the first time it has been the busiest.

### Five busiest road sections

Vehicles per day in 2021\*

1. M60 J16-17	185,000
2. M25 J13-14	182,000
3. M25 J14-15	180,000
4. M25 J12-13	174,000
5. M25 J15-16	170,000

\*rounded figures

### Road-level data

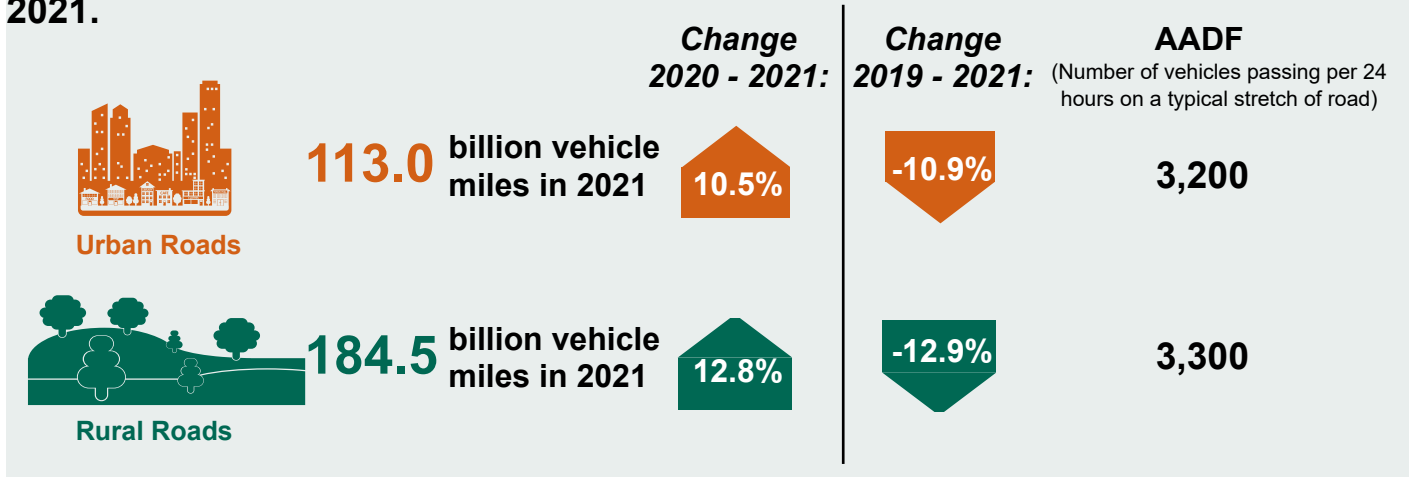
The street level traffic estimates for all junction-to-junction links of motorways and 'A' roads in Great Britain are available to view and download at the traffic counts website -

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

# Traffic in urban and rural areas

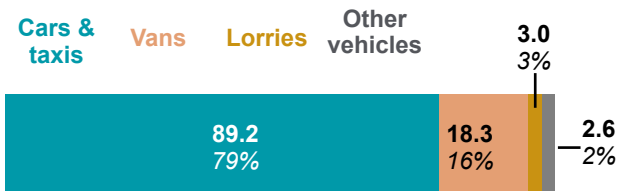
This section explores how levels and trends in traffic on all roads differ between urban and rural areas of Great Britain.

Traffic on all roads in urban and rural areas increased between 2020 and 2021. Compared to 2019, traffic on all roads in urban and rural areas decreased in 2021.



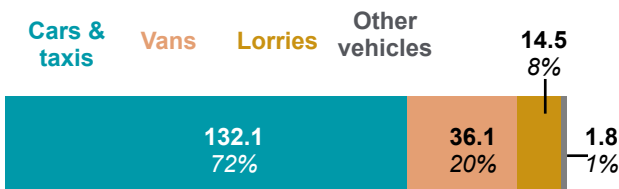
## Roads in urban areas

**39%** of road length      **38%** of vehicle miles



## Roads in rural areas

**61%** of road length      **62%** of vehicle miles

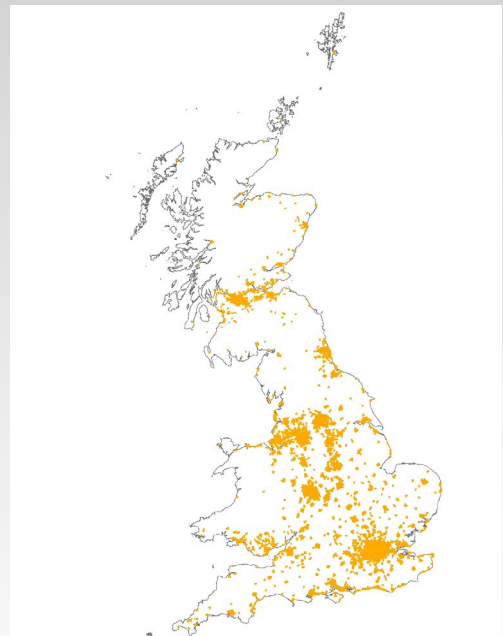


## About urban and rural areas

The urban and rural classification of areas is defined by the Office for National Statistics, using information from the latest Census.

'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](#).

'Urban' areas are shown in orange on the map below.

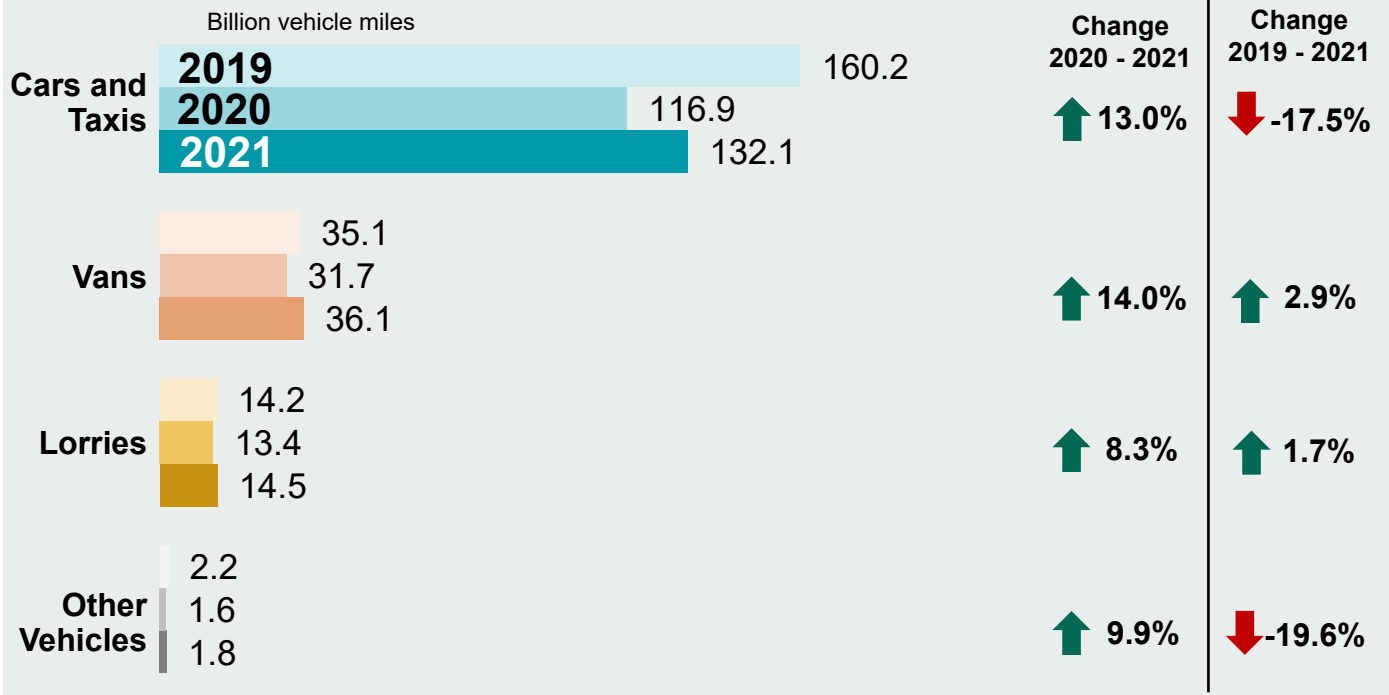


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 Contains National Statistics data.  
 Source: Department for Transport

## Rural areas

Traffic on roads in rural areas increased by 12.8% between 2020 and 2021. Compared to 2019, traffic on roads in rural areas decreased by 12.9% in 2021.

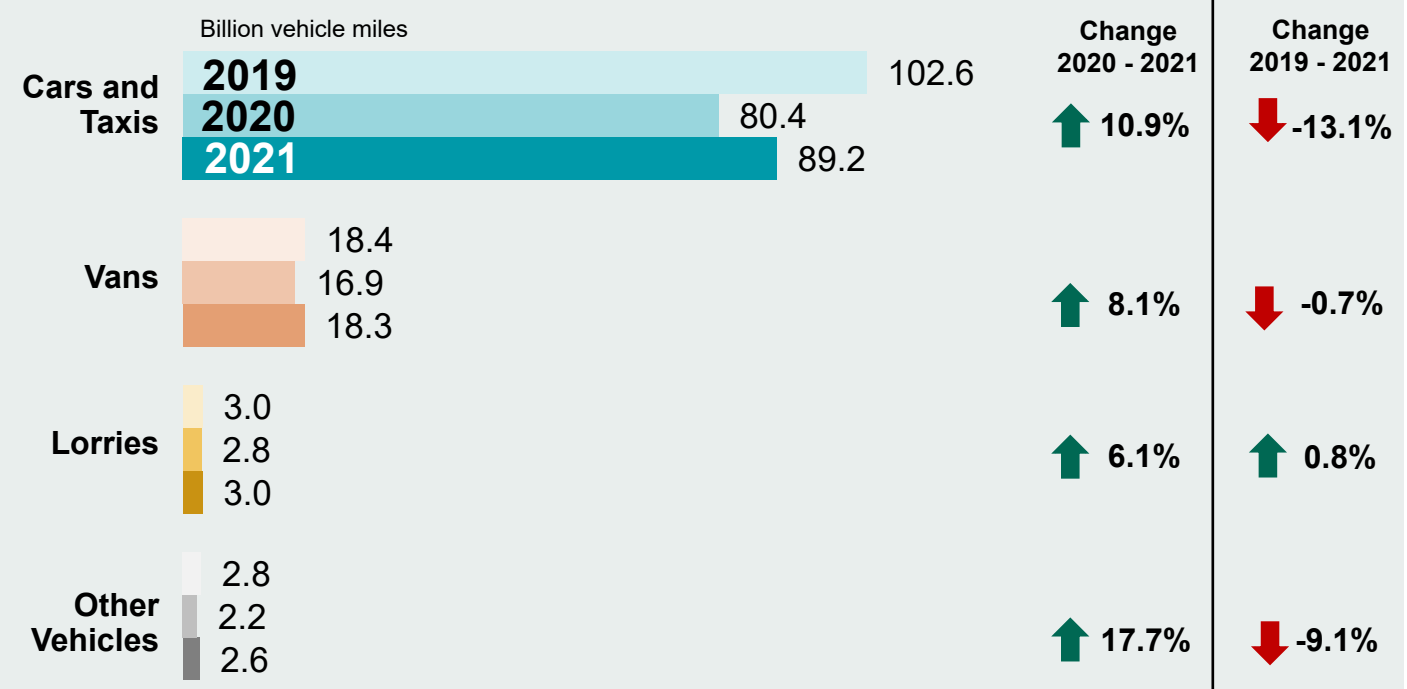
### Vehicle miles travelled on Rural roads by vehicle type in Great Britain



## Urban areas

Traffic on roads in urban areas increased by 10.5% between 2020 and 2021. Compared to 2019, traffic on roads in urban areas decreased by 10.9% in 2021.

### Vehicle miles travelled on Urban roads by vehicle type in Great Britain



# 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)

## Daily traffic index

- ▶ To monitor the use of the transport system during the coronavirus (COVID-19) pandemic, a daily index of road traffic levels compared to February 2020 are being published on a weekly basis - [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)

## 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)
- ▶ **Transport Statistics Great Britain 2020** - [www.gov.uk/government/collections/transport-statistics-great-britain](http://www.gov.uk/government/collections/transport-statistics-great-britain)

# Background information

## Minor road traffic estimates

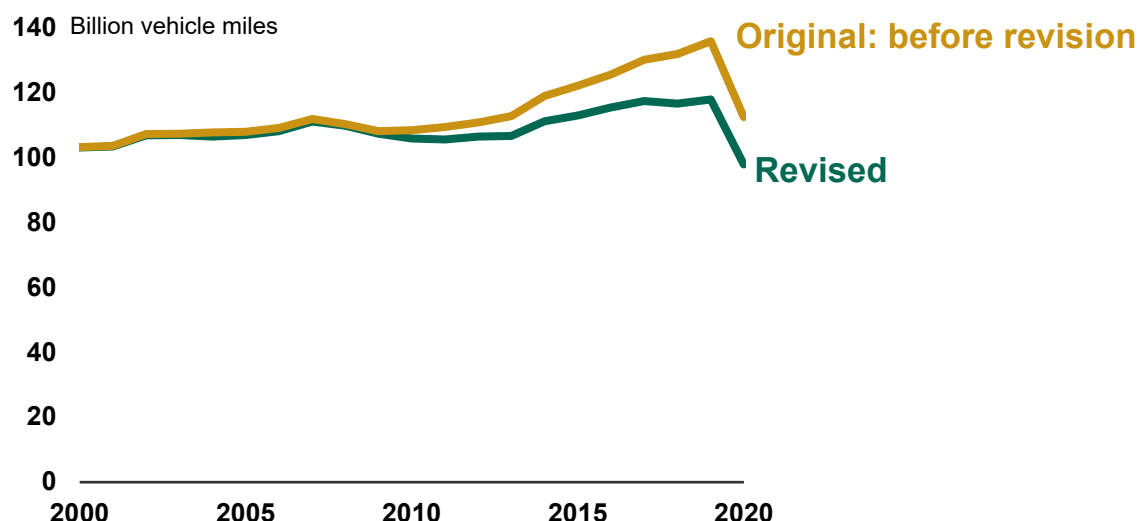
Minor road traffic estimates from 2000 to 2020 have been revised as a result of the previously announced Minor Roads Traffic Estimate Review.

The Department for Transport publishes annual and quarterly estimates of road traffic on Great Britain's roads. In 2020 the Department revised its minor road traffic estimates for 2010 to 2019 as a result of the latest minor roads benchmarking exercise, which is conducted every decade. The methodological approach used for the 2019 minor road traffic benchmarking exercise was developed and verified in conjunction with independent statistical methodologists from the Office of National Statistics. However, the adjustment applied to minor road traffic as a result of the 2019 benchmarking exercise and associated data collection was higher than that of previous benchmarking exercises. As part of the subsequent minor road traffic estimates review, the Department for Transport's Road Traffic Statistics Team has carried out further exploration of previous benchmarking exercises and annual estimation methods to investigate any improvements that could be made to the historical series whilst ensuring the consistency of the time series.

The investigations into historic minor road traffic estimates have resulted in revised estimates of historic minor road traffic, which have been implemented in this publication.

The overall impact of these revisions is displayed in the chart. Previously published minor road traffic estimates showed a 26% increase in minor road traffic in Great Britain between 2009 and 2019. After applying the revisions, the newly published minor road traffic estimates show a 10% increase in minor road traffic over the same period. The total estimate for 2009 has been reduced by less than 1% and the estimate for 2019 has been reduced by 13%.

## Minor road traffic in Great Britain: before and after applying the revisions, 2000-2020



## Further Information

For more information about the Minor Road Traffic Estimate Review, see the Technical Report and associated FAQ publication on the road traffic statistics guidance page:

[www.gov.uk/government/publications/road-traffic-statistics-guidance](http://www.gov.uk/government/publications/road-traffic-statistics-guidance)

# 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 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). The next estimates of foreign vehicle traffic, covering 2021, are planned to be published in 2023.
- ▶ The Road Traffic statistics series consistently reports higher levels of vehicle mileage 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 on our guidance page.



# 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.

### ► Department for Levelling Up, Housing and Communities

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 May 2023, reporting 2022 traffic figures.

Provisional figures for 2022 will be published on a quarterly basis during 2022-23. The next provisional figures, for the year to end September 2022, are due to be released in December 2022.