

Free Flow Vehicle Speed Statistics: Great Britain 2013



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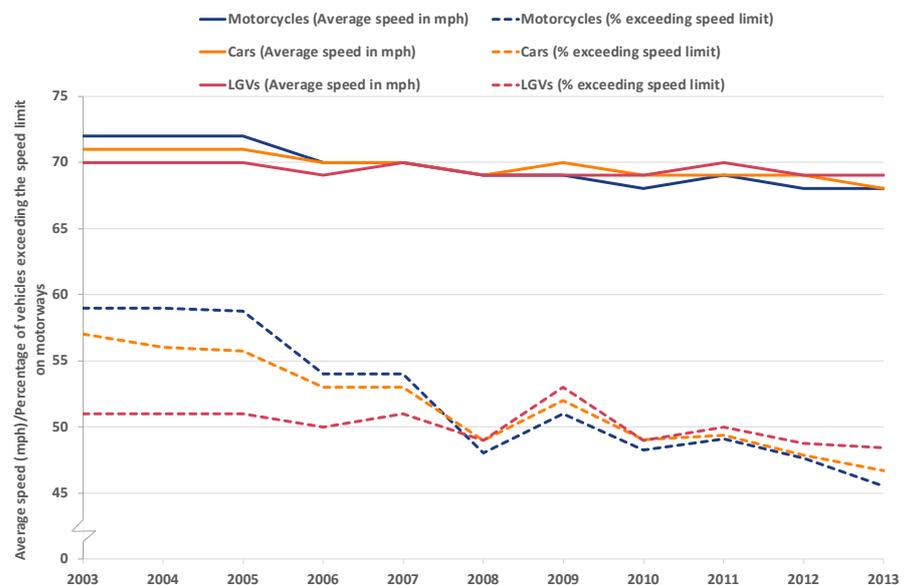
Main findings:

Since 2003, average free flow speeds for all vehicle types across each road classification have remained broadly stable. The chart below illustrates this trend for selected vehicle types (motorcycles, cars and Light Goods Vehicles (LGVs)) along motorways.

The percentage of different vehicle classifications exceeding the speed limit has varied across each vehicle type and road category over time. The percentage of motorcycles, cars and LGVs exceeding the speed limit on motorways between 2003 and 2013 has declined overall.

- Along motorways, 12 per cent of cars in 2013 exceeded their 70 mph speed limit by more than 10 mph, which is consistent with 2012 estimates.
- In 2013, LGVs had the highest average free flow speed across all road types, reaching 69 mph on motorways.
- One per cent of articulated Heavy Goods Vehicles (HGVs) exceeded their 50 mph speed limit by more than 10 mph on dual carriageways and 18 per cent exceeded their 40 mph limit by more than 10 mph on single carriageways.
- Compared to 2012, the percentage of vehicles exceeding the limit on 30 mph roads has fallen for motorcycles and cars.

Average free flow speeds and percentage of motorcycles, cars and LGVs exceeding the speed limit on motorways in Great Britain, 2002 to 2013



About this release

This statistical release presents estimates of the speed of traffic in free flowing conditions on roads in Great Britain during 2013.

These statistics provide insight into the speeds at which drivers choose to travel and their compliance with speed limits, but should not be taken as estimates of actual average speed across the road network, which are available separately for local authority managed roads (see Background Information, [page 5](#)).

These estimates are based on traffic speed data collected from a sample of 92 Automatic Traffic Counters (ATCs) from a national network of around 200 ATCs. This sample was deliberately chosen to exclude ATCs located where external factors might restrict driver behaviour (including junctions, hills, sharp bends and speed enforcement cameras).

More information and detailed statistics on Free Flow Vehicle Speeds across non-built up and built-up roads can be found online in our [free flow vehicle speeds statistical series](#).

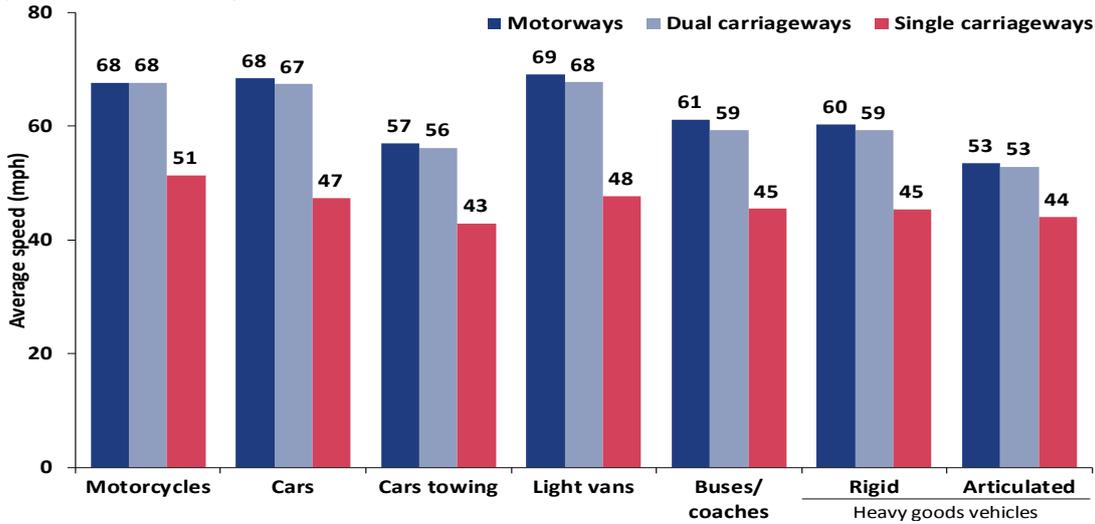
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Free flow vehicle speeds

Roads in non-built up areas:

Average free flow speeds on non-built-up roads in Great Britain, 2013

(Table [SPE0101](#))



- Speed limits differ by vehicle type and road classification. These limits heavily influence average vehicle speeds. More information on speed limits can be found online [here](#).
- In 2013, the average free flow speed of cars travelling on roads in non-built-up areas was 68 mph on motorways and 67 mph on dual carriageways.

- Motorcycles had an average free flow speed of 68 mph on motorways, where the speed limit is 70 mph. This is the same average free flow speed of cars. However, motorcycles were, on average, 4 mph faster than cars on single carriageway roads where the speed limit is 60 mph.
- The average free flow speed of rigid HGVs was 60 mph on motorways, where their speed limit is 60 mph, 59 mph on dual carriageways, where their speed limit is 50 mph, and 45 mph on single carriageways, where their speed limit is 40 mph.
- Articulated HGVs continue to have the lowest average speed on non-built up roads at 53 mph on both motorways (where HGVs have a 60 mph limit) and dual carriageways (where HGVs have a 50 mph limit) and 44 mph on single carriageways (where HGVs have a 40 mph limit).

Roads in built up areas:

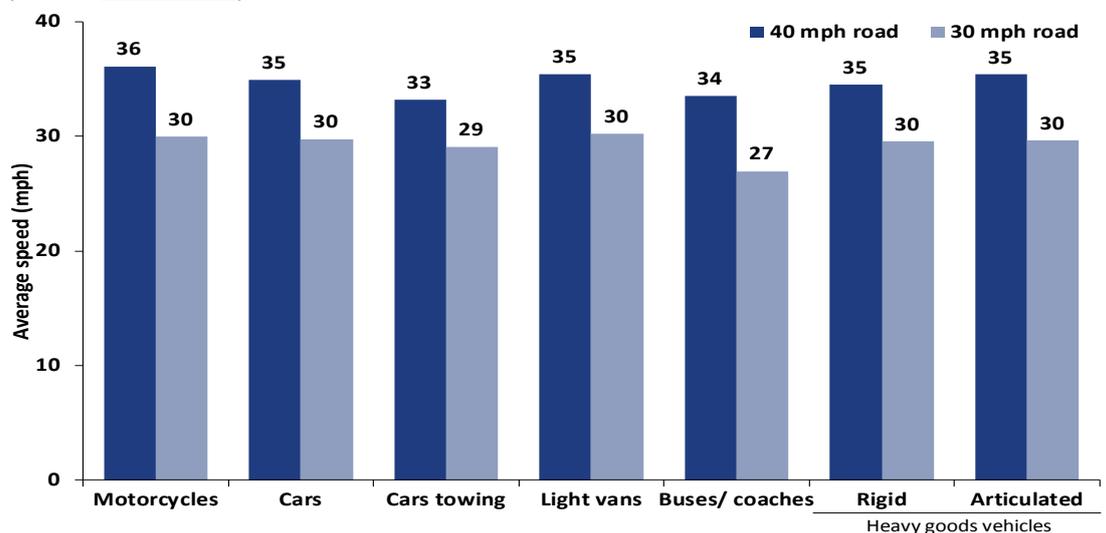
- In 2013, the average free flow speed of cars on roads with a 30 mph limit was 30 mph, and on roads with a 40 mph limit the average free flow speed was 35 mph.
- On 30 mph limit roads, all vehicle types had the same average free flow speed in 2013 as they did in 2012. The average free flow speed for each vehicle type on 30 mph roads was 30 mph, with the exception of cars towing (29 mph) and buses (27 mph).

- Motorcycles (36 mph) had the fastest average free flow speed on roads with a 40 mph speed limit.

- Buses continue to have the lowest average free flow speed on roads in built up areas, at 34 mph on 40 mph limit roads, and at 27 mph on 30 mph limit roads respectively.

Average free flow speeds on built-up roads in Great Britain, 2013

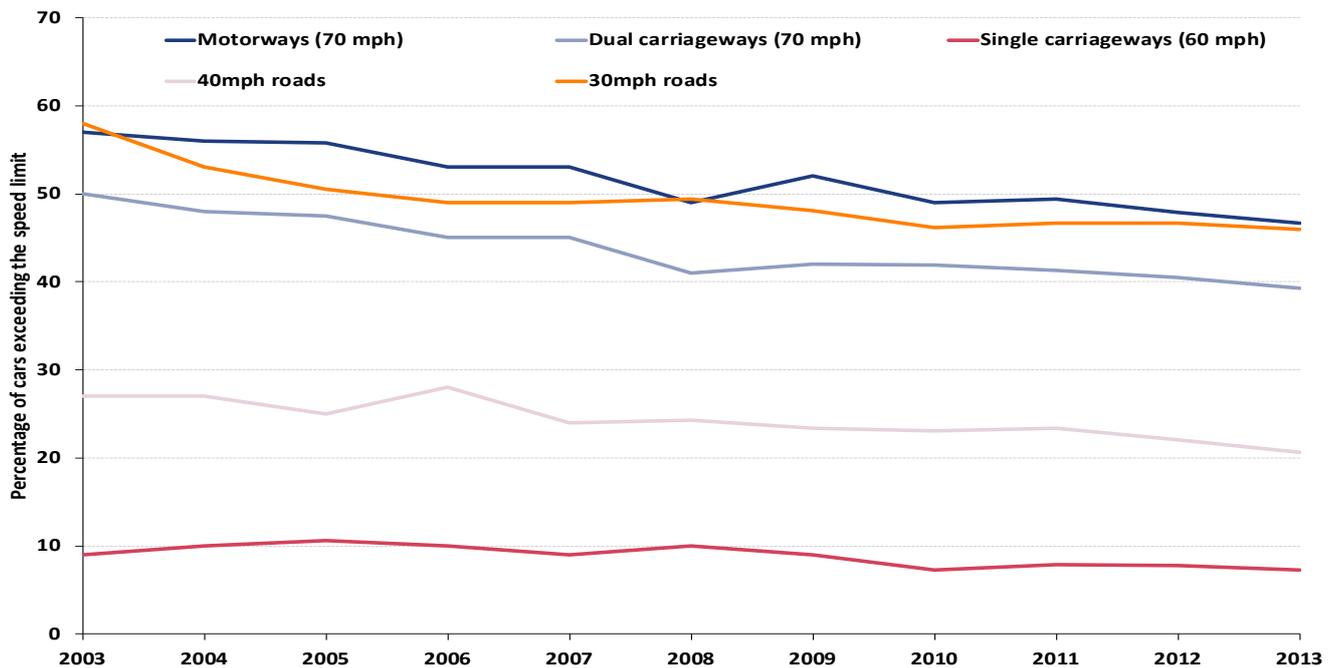
(Table [SPE0102](#))



Vehicles exceeding the speed limit

On motorways the speed limit is 70 mph for cars. Cars travelling at over 70 mph are defined as “exceeding the speed limit” whilst cars travelling at over 80 mph are defined as “exceeding the limit by more than 10 mph”.

Percentage of cars exceeding the speed limit by road type in Great Britain, 2013 (Chart [SPE0105a](#))



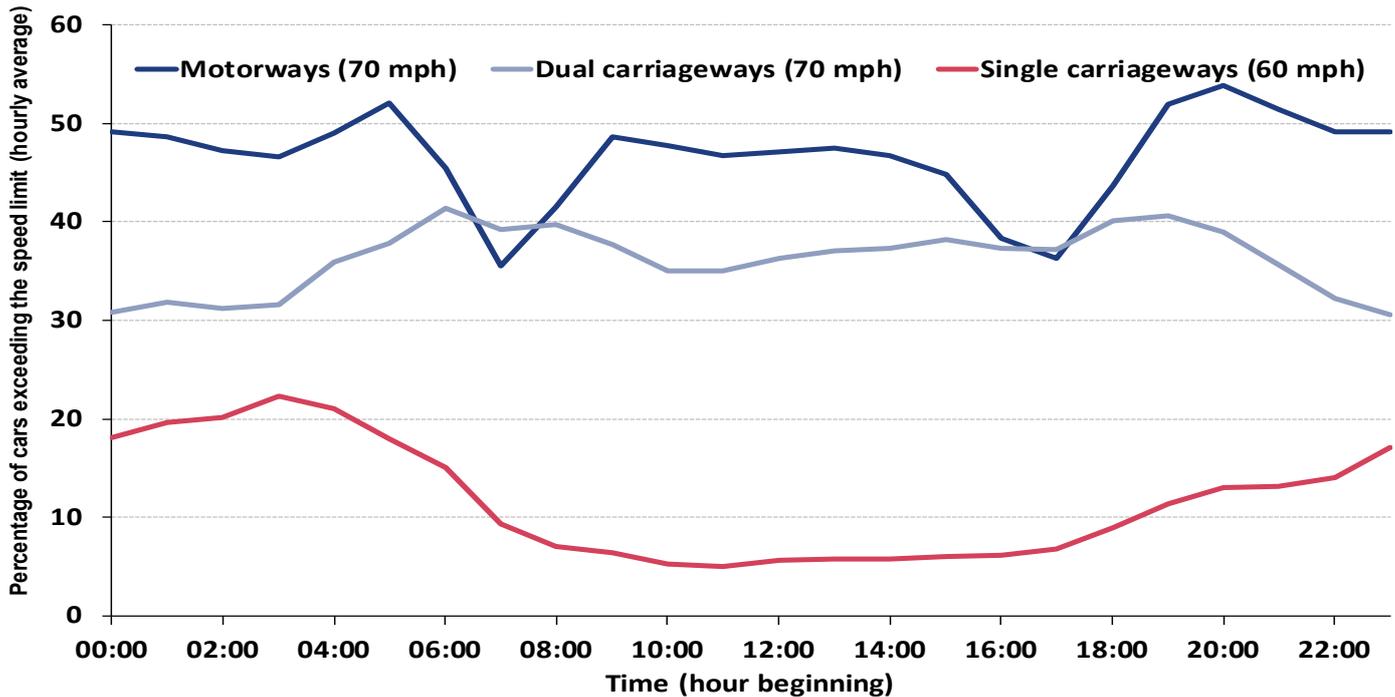
Roads in non-built up areas:

- Forty seven per cent of cars on motorways were travelling at a speed that exceeded the 70 mph limit, the lowest proportion ever recorded. Twelve per cent of all cars were travelling at least 10 mph above the speed limit.
- On dual carriageways 8 per cent of cars exceeded the 70 mph speed limit by more than 10 mph whilst on single carriageways 1 per cent of cars exceeded the 60 mph speed limit by more than 10 mph.
- The percentage of motorcycles exceeding the speed limit on motorways has decreased by 13 percentage points over the past ten years, reaching 46 per cent in 2013. Seventeen per cent of motorcycles exceeded their 70 mph speed limit on dual carriageways by more than 10 mph in 2013, 2 percentage points lower than 2012 estimates.
- No articulated HGVs exceeded their speed limit of 60 mph on motorways (0 per cent), as they are fitted with speed limiters. However, 1 per cent of articulated HGVs exceeded their 50 mph speed limit on dual carriageways by more than 10 mph and 18 per cent exceeded their 40 mph limit by more than 10 mph on single carriageways.
- Motorcycles had the highest proportion of vehicles exceeding the 70 mph speed limit on motorways by more than 10 mph (17 per cent). Fourteen per cent of LGVs exceeded the limit by more than 10 mph.

Roads in built up areas:

- Forty six per cent of cars exceeded the speed limit on 30 mph roads in 2013, with 21 per cent of cars exceeding the speed limit on 40 mph roads. This represents a drop of 12 and 6 percentage points, respectively, when compared to 2003.
- On 30 mph roads, 16 per cent of cars exceed the speed limit by five mph or more. Across 40 mph roads, 7 per cent of cars exceeded the speed limit by five mph or more.
- Nineteen per cent of LGVs exceeded the speed limit on 30 mph limit roads by more than 5 mph
- For all vehicle types, more vehicles exceeded the speed limit on 30 mph roads than on 40 mph roads; this pattern has been observed for many years.

Percentage of cars exceeding the speed limit by time of day on non-built up roads in Great Britain, 2013 (Chart [SPE0106a](#))



Cars exceeding the speed limit by time of day:

- The percentage of cars exceeding the speed limit on motorways was greatest between 8 pm and 9 pm at 54 per cent. The time periods with the lowest proportion of cars exceeding the speed limit were 7 am to 8 am and 5 pm to 6 pm, both at 36 per cent, when there may be more cars on the road.
- The percentage of cars exceeding the speed limit on dual carriageways was greatest in the morning, between 6 am and 7 am, and in the evening, between 7 pm and 8 pm (both at 41 per cent) with much smaller falls in this percentage during the morning and evening peak periods than observed on motorways.
- The percentage of cars exceeding the speed limit on single carriageway roads was higher in the early hours of the morning than it was during the rest of the day. At its maximum, 22 per cent of cars exceeded the limit, between 3 am and 4 am, compared to 5 per cent at its minimum, between 10 am and 12 pm.
- On both 30 mph and 40 mph built-up roads, the percentage of cars exceeding the speed limit was highest in the morning until around 7 am.
- The percentage of cars exceeding the speed limit on 30 mph roads was higher than for 40 mph roads at all times of day. At its highest during the day, 72 per cent of cars exceeded the speed limit on 30 mph roads (between 5 am and 6 am) compared to 44 per cent of cars exceeding the speed limit on 40 mph roads (between 3 am and 4 am).

Sources, strengths and weaknesses of the data

- These estimates are based on traffic speed data collected from a sample of 92 Automatic Traffic Counters (ATCs) from a national network of around 200 ATCs. The 92 ATCs which are used are selected so they match the criteria that traffic measured is free flowing; this means our sample size is reduced. The number of individual vehicles observed in the production of these statistics was 776,990,310.
- Free flow vehicle speeds data provides insight into the speeds at which drivers choose to travel when not hindered by obstacles; these obstacles include congestion, roundabouts, hills, or traffic enforcement cameras. It also gives a picture of drivers' compliance with speed limits on roads in Great Britain
- Average speeds statistics are available online from the Road Congestion and Reliability Statistics series: <https://www.gov.uk/government/collections/road-congestion-and-reliability-statistics>.
- The data cannot be localised; we get a general picture of Great Britain but do not know the average free-flow speeds vehicles choose to travel in regions or local authorities. We do not know the free-flow speeds of vehicles on specific roads as the data comes from a sample of suitable roads.
- We are currently reviewing our free flow vehicle speed statistics publication and its comparability with our other statistics series. This may lead to changes in format in future releases.
- Full guidance on the sources and methods used to compile these statistics, plus information on speed limits, can be found here: <https://www.gov.uk/government/publications/road-traffic-speeds-and-congestion-statistics-guidance>.

We welcome feedback on any aspects of the Department's road traffic statistics including content, timing, and format via email to roadtraff.stats@dft.gsi.gov.uk.

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.

Free Flow Vehicle Speed Statistics were assessed by the UK Statistics Authority against the Code of Practice and were confirmed as National Statistics in February 2013.

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

Next update

The next Free Flow Vehicle Speed Statistics are due to be published in summer 2015.