



Free Flow Vehicle Speed Statistics: Great Britain 2012

This Statistical Release presents estimates on the speed of traffic in free flowing conditions on roads in Great Britain during 2012.

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 section three).

These estimates are based on traffic speed data collected from a sample of 92 Automatic Traffic Counters (ATCs) from a national network of around 270 ATCs. This sample was deliberately chosen to exclude ATCs located where external factors are present which might restrict driver behaviour (including junctions, hills, sharp bends and speed enforcement cameras).



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Key findings include:

- On motorways, 48 per cent of cars exceeded the 70 mph speed limit in 2012, a decrease of one percentage point from 2011. Twelve per cent of cars in 2012 travelled at 80 mph or faster, continuing the downward trend seen in recent years.
- Compared to 2002, the percentage of vehicles exceeding the limit on 30 mph roads has fallen for every vehicle type, excluding motorcycles which has increased by 3 percentage points.
- Between 2011 and 2012, the percentage of cars exceeding the 30 mph speed limit remained unchanged at 47 per cent.
- Eighty two per cent of articulated heavy goods vehicles exceeded their 50 mph speed limit on dual carriageways and 73 per cent exceeded their 40 mph limit on single carriageways.
- In 2012, motorcycles had the highest average free flow speeds across all road types except motorways for which cars and light goods vehicles were the highest at 69 mph. Motorcycles had the highest proportion travelling at least 10 mph above the speed limit on motorways (18 per cent) and dual carriageways (19 per cent).

RESPONSIBLE STATISTICIAN

Rachel Worledge

FURTHER INFORMATION

Media Enquiries:

020 7944 3066

Public Enquiries:

020 7944 3095

roadtraff.stats@dft.gsi.gov.uk

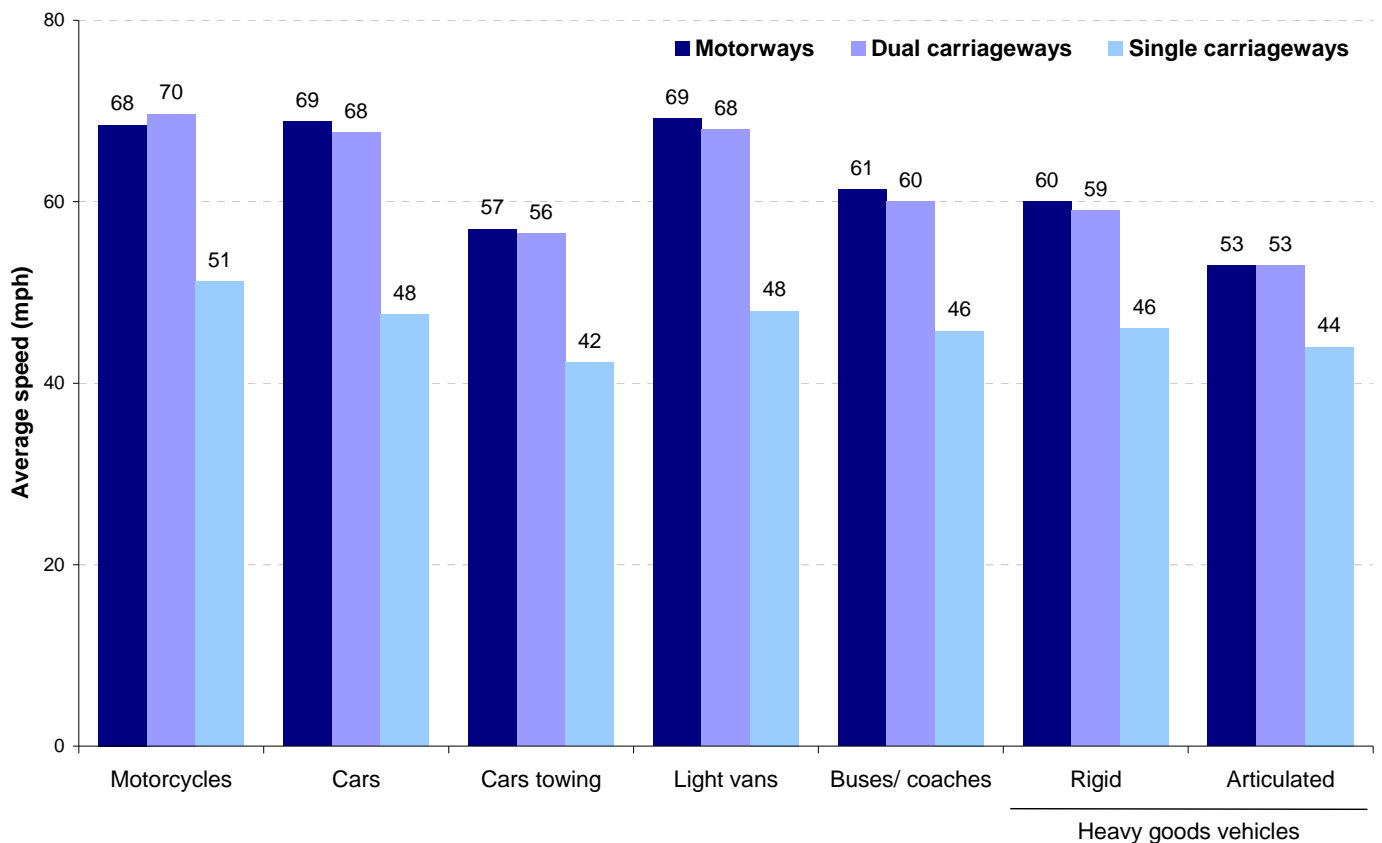
1. Free flow vehicle speeds

- The average free flow speed for cars has remained broadly stable over the last ten years across all road types, with the exception of 40mph roads in built-up areas where the average free-flow speed has decreased by 2mph, from 37mph in 2002 to 35mph in 2012.
- Over the last ten years, motorcycles have continued to have the highest average free flow speed on all road types except motorways. On motorways, the average free flow speed for motorcycles was 71 mph in 2002, the highest of all vehicle types. In 2012, this was 3mph slower at 68 mph.

Roads in non-built up areas

- In 2012, the average free flow speed of cars travelling on roads in non-built-up areas was 69 mph on motorways and 68 mph on dual carriageways.
- Light goods vehicles had the same average free flow speed as cars on all types of non-built up roads.
- Motorcycles had an average free flow speed of 68 mph on motorways, one percentage point lower than the average free flow speed of cars on motorways. However, motorcycles had a higher average free flow speed than cars on dual carriageways (70 mph) and at 51 mph, were on average 3 mph faster than cars on single carriageway roads.

Average free flow speeds on non-built-up roads in Great Britain, 2012 (Table SPE0101)



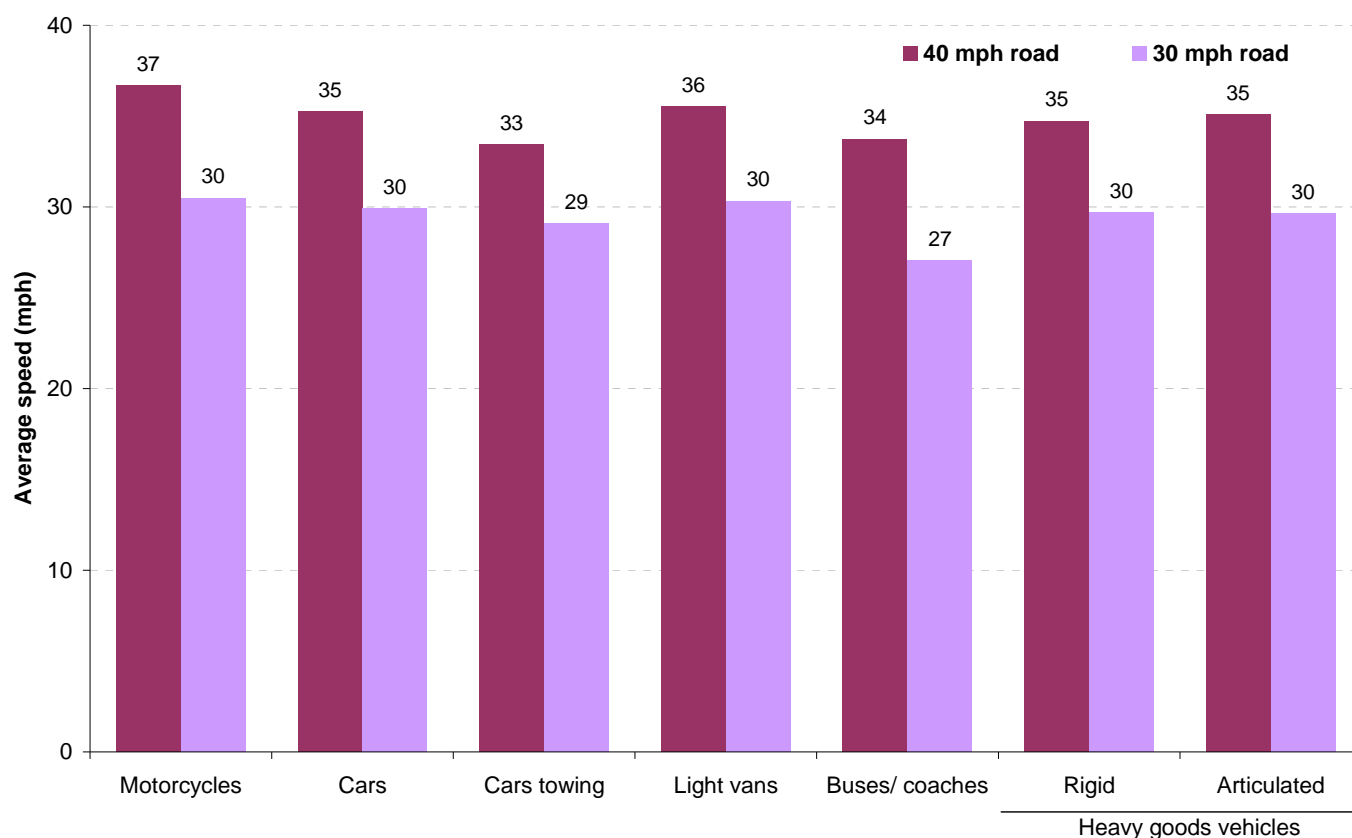
- On single carriageways, the average free flow speed has increased since 2002 for every vehicle type, with the exception of articulated HGVs for which it remains unchanged.

- The average free flow speed of rigid heavy goods vehicles was 60 mph on motorways and 59 mph on dual carriageways.
- Articulated HGVs continue to have the lowest speed on non-built up roads at 53 mph on motorways (60 mph limit) and dual carriageways (50 mph limit), and 44 mph on single carriageways (40 mph limit).

Roads in built-up areas

- In 2012, the average free flow speed of cars on roads with a 30 mph limit was 30 mph, and on roads with a 40 mph speed limit it was 35 mph.
- Motorcycles (37 mph) and light goods vehicles (36 mph) had the fastest average free flow speed with a 40 mph speed limit.
- On 30 mph limit roads, all vehicle types averaged the same speed in 2012 as they did in 2011. The average free flow speed for all vehicle types on 30 mph roads was 30 mph, with the exception of cars towing (29 mph) and buses & coaches (27 mph). For all vehicles except motorcycles, the average free flow speed on 30 mph limit roads has fallen in the ten years since 2002.
- Buses and coaches 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.

Average free flow speeds on built-up roads in Great Britain, 2012 (Table SPE0102)

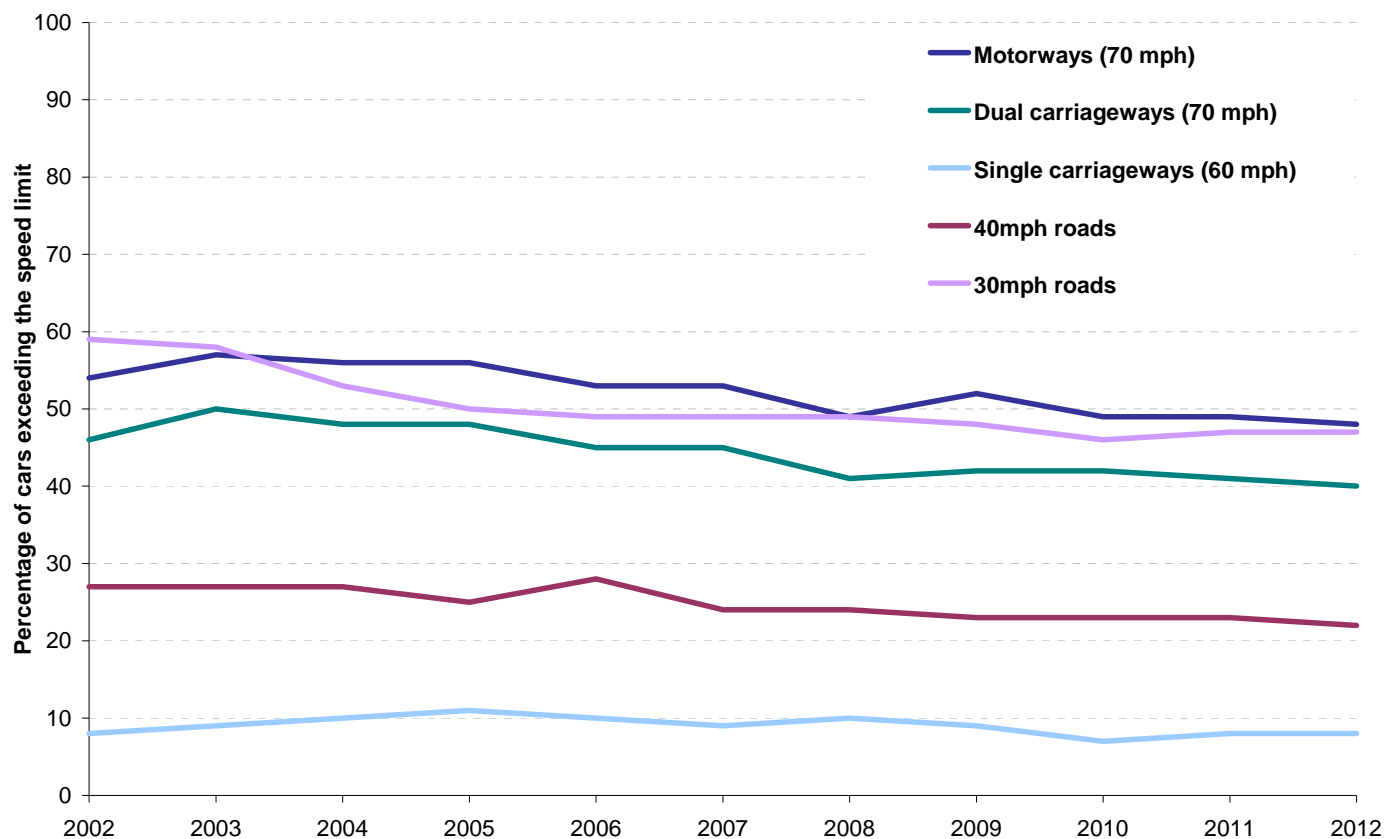


Detailed statistics (tables and charts) on Free Flow Vehicle Speeds on non-built up and built-up roads can be found in the Free Flow Vehicle Speeds Statistics web tables, [SPE0101-6](#).

2. Vehicles exceeding the speed limit¹

- The percentage of cars exceeding the speed limit has fallen on every road type in the ten years since 2002, with the exception of single carriageways where the percentage is unchanged.

Percentage of cars exceeding the speed limit by road category in Great Britain, from 2002 (Chart SPE0105a)



Roads in non-built-up areas

- Forty eight per cent of cars on motorways were travelling at a speed that exceeded the 70 mph limit, the lowest proportion in the last ten years. Twelve per cent of all cars were travelling at least 10 mph above the speed limit¹.
- On dual carriageways 40 per cent of cars exceeded the speed limit (70mph) whilst on single carriageways 8 per cent of cars exceeded the limit (60 mph).
- Light goods vehicles had the highest proportion of vehicles exceeding the 70mph speed limit on motorways at 49 per cent whilst 42 per cent exceeded the speed limit on dual carriageways (70mph).
- The percentage of motorcycles exceeding the speed limit on motorways has decreased by 9 percentage points over the last ten years to 48 per cent. Fifty one per cent of motorcycles exceeded the speed limit on dual carriageways. Furthermore, 18 per cent of motorcycles were travelling 10 mph or more above the speed limit on motorways and 19 per cent on dual

¹ For example, for cars on motorways the speed limit is 70 mph. Vehicles travelling at over 70 mph are defined as “exceeding the speed limit”. Vehicles travelling at over 80 mph are defined as “exceeding the limit by more than 10 mph”. Further details on speed limits by vehicle type and road category can be found in section 4.

carriageways. These were the highest proportions for any vehicles for these road types.

- Very few articulated HGVs² exceeded their speed limit of 60 mph on motorways (1 per cent), as they are fitted with speed limiters. However, 82 per cent of them exceeded their 50 mph speed limit on dual carriageways and 73 per cent exceeded their 40 mph limit on single carriageway non-built-up roads. Twenty per cent exceeded the speed limit by 10 mph or more on single carriageway roads.

Roads in built-up areas

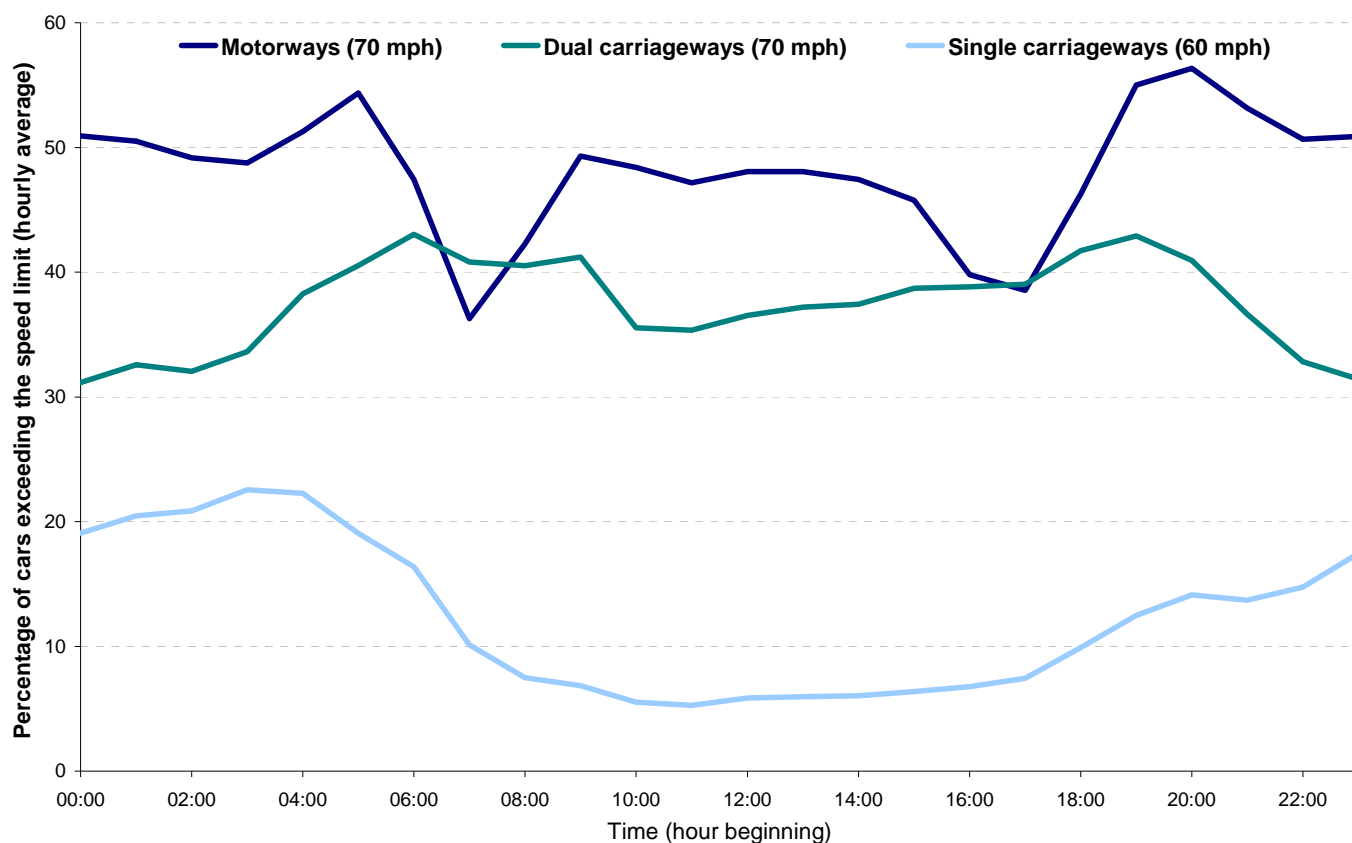
- Forty seven per cent of cars exceeded the speed limit on 30 mph roads in 2012, with 16 per cent travelling at 35 mph or more. This is a drop of 12 and 9 percentage points, respectively, when compared to 2002. On 40 mph roads, 22 per cent of cars exceeded the speed limit and 7 per cent exceeded it by five mph or more.
- Fifty per cent of motorcycles and light goods vehicles exceeded the speed limit on 30 mph limit roads, the highest proportions for this road type.
- 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.

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 56 per cent. The time periods with the lowest proportion of cars exceeding the speed limit were 7 am to 8 am at 36 per cent, and 5 pm to 6 pm at 39 per cent.
- 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 (all at 43 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, 23 per cent of cars exceeded the limit compared to 5 per cent at its minimum.

² The percentage of rigid heavy goods vehicles exceeding the speed limit on non-built up roads cannot be reported as their speed limits depend on loading which cannot be determined.

Percentage of cars exceeding the speed limit by time of day on non-built-up roads in Great Britain, 2012 (Chart SPE0106a)



- 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 8 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).

Detailed statistics (tables and charts) on Free Flow Vehicle Speeds on non-built up and built-up roads can be found in the Free Flow Vehicle Speeds Statistics web tables, [SPE0101-6](#).

3. Strengths and weaknesses of the data

- 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 from the Road Congestion and Reliability Statistics series: <https://www.gov.uk/government/organisations/department-for-transport/series/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.
- The automatic traffic counters 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 704,126,398.

4. Background notes

1. The web tables give further detail and regional breakdowns of the key results presented in this statistical release and statistics on other related topics. They are available here:

<https://www.gov.uk/government/organisations/department-for-transport/series/speeds-statistics>

2. Full guidance on the sources and methods used to compile these statistics can be found here:

<https://www.gov.uk/transport-statistics-notes-and-guidance-free-flow-speeds>

3. Details on speed limits by vehicle type and road category can be found here:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/68720/free-flow-vehicle-speeds-2010-speed-limits.pdf

4. National Statistics are produced to high professional standards set out in the Code of Practice for Official Statistics. 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.

5. 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/transport-statistics-notes-and-guidance-free-flow-speeds#pre-release-access-list>

6. The next Free Flow Vehicle Speed Statistics are due to be published in Summer 2014.