

# Congestion on local 'A' roads, England: October to December 2013



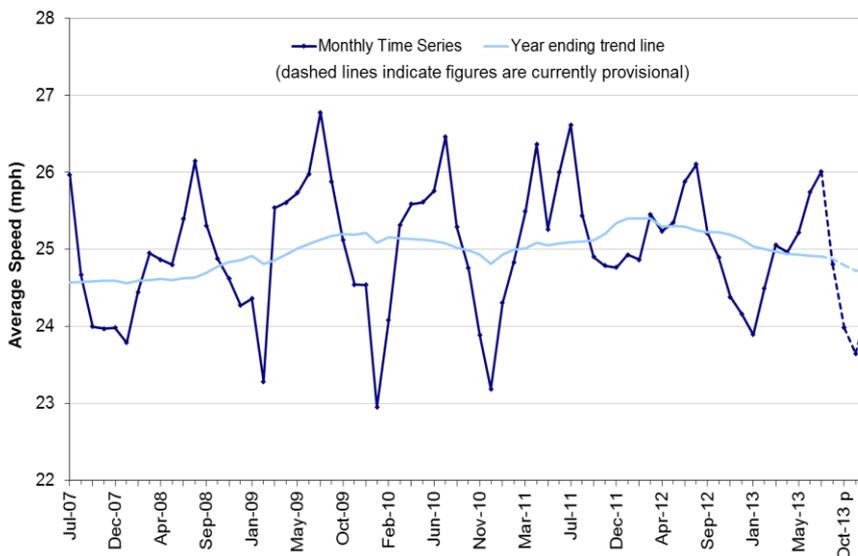
Department  
for Transport

## Main findings: Average speeds have fallen steadily over last 21 months

In the year ending December 2013, provisional data show that the average speed on local 'A' roads in England during the weekday morning peak was 24.7 mph. This is a 0.6% decrease on the year ending September 2013.

- For individual months, average speeds on local 'A' roads in England were slower in October 2013 (down 3.7%) and November 2013 (down 3.0%) compared to the same months in 2012. Average speeds for December 2013 were relatively stable with little change compared to December 2012.
- Looking further back, average speeds have fallen steadily over the last 21 months (back to the year ending March 2012). Prior to that, there were increases in speeds between the years ending December 2010 and February 2012.

**Average vehicle speeds during the weekday morning peak<sup>1</sup> on local 'A' roads: England, monthly and annual averages from 2006/07** (Table [CGN0205](#))



### Why measure speeds during morning peak?

Speeds are measured during the weekday morning peak as this is when demand on local 'A' roads is typically at its highest. This high demand often leads to physical congestion and low speeds.

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## About this release

This statistical release presents information about congestion on local highway authority managed 'A' roads in England. Congestion on locally managed 'A' roads is measured by estimating the average speed achieved by vehicles during the weekday morning peak from 7am to 10am. Speeds are estimated using data from in-vehicle Global Positioning Systems (GPS).

### Further information:

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### Introduction

Local 'A' roads account for around 9% of all roads in England, but carry around a third of all traffic. Congestion on local 'A' roads is measured by estimating average speeds achieved by vehicles during the weekday morning peak, 7am to 10am. Any weekdays falling during school holiday periods or the month of August are excluded. Speeds are measured during the weekday morning peak as this is when demand on local 'A' roads is typically at its highest. This high demand often leads to physical congestion and low speeds. In interpreting the data, reductions in the speeds reported suggest that general congestion levels on these roads have increased over the period while increases in speeds suggest congestion levels have fallen.

The data are based on journey times estimated using in-vehicle Global Positioning Systems (GPS) and flows estimated using automatic traffic counters.

For further information, a useful introduction to the Department's congestion and reliability statistics, including the different measures, how they are published and the ways in which they are used is available here:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/51125/An\\_introduction\\_into\\_the\\_Department\\_for\\_Transport\\_s\\_congestion\\_statistics.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/51125/An_introduction_into_the_Department_for_Transport_s_congestion_statistics.pdf)

### Latest statistics: Average speeds have fallen steadily over last 21 months

Provisional data show that the average speed on local 'A' roads in England during the weekday morning peak was 24.7 mph in the year ending December 2013. This is a 0.6% decrease on the year ending September 2013.

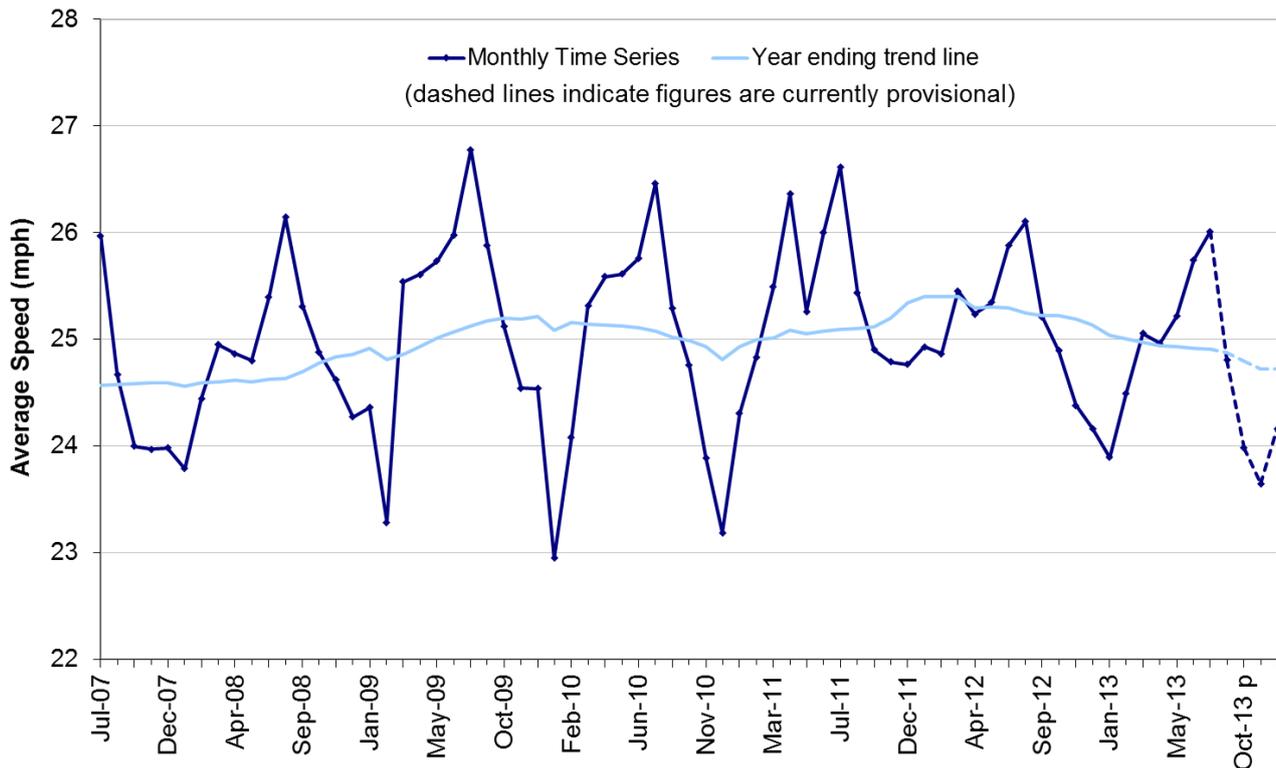
For individual months, the average speed in October 2013 was 24.0 mph (3.7% down compared to October 2012), November 2013 was 23.6 mph (3.0% slower than November 2012) and December 2013 was 24.2 mph (no change compared to December 2012).

There were increases in annual average weekday morning peak speeds between the years ending December 2010 and February 2012. However, since March 2012, annual average speeds have generally decreased. The general downward trend in annual average weekday morning peak speeds observed across the last 21 months can be partly attributed to the amount of rainfall over this period. Met office data show that 2012 was the wettest year on record in England and rainfall was higher in every month from March 2012 to March 2013 compared to the same month in the previous year.

There were pronounced drops in speed in April 2012, December 2012 and October 2013, during periods of unusually high levels of rainfall. January 2013 also saw a large fall in average speeds compared to January 2012, which was attributed to significant levels of snowfall across much of the country, causing considerable disruption on the road.

In more recent periods there have been small increases in traffic on 'A' roads which may partly explain why average speeds on local 'A' roads have continued to fall.

**Average vehicle speeds during the weekday morning peak<sup>1</sup> on local 'A' roads: England, monthly and annual averages from 2006/07 (Table [CGN0205](#))**



1. Morning peak defined as 7am to 10am. School holiday periods and the month of August are excluded.
  2. Average speeds have been flow -weighted using DfT traffic estimates
  3. Figures in this chart have not been seasonally adjusted.
- p = provisional

[The footnotes above apply to all charts presented in this release]

Congestion statistics to July 2013 are now final. Statistics for September 2013 onwards are currently provisional and will be finalised in November 2014.

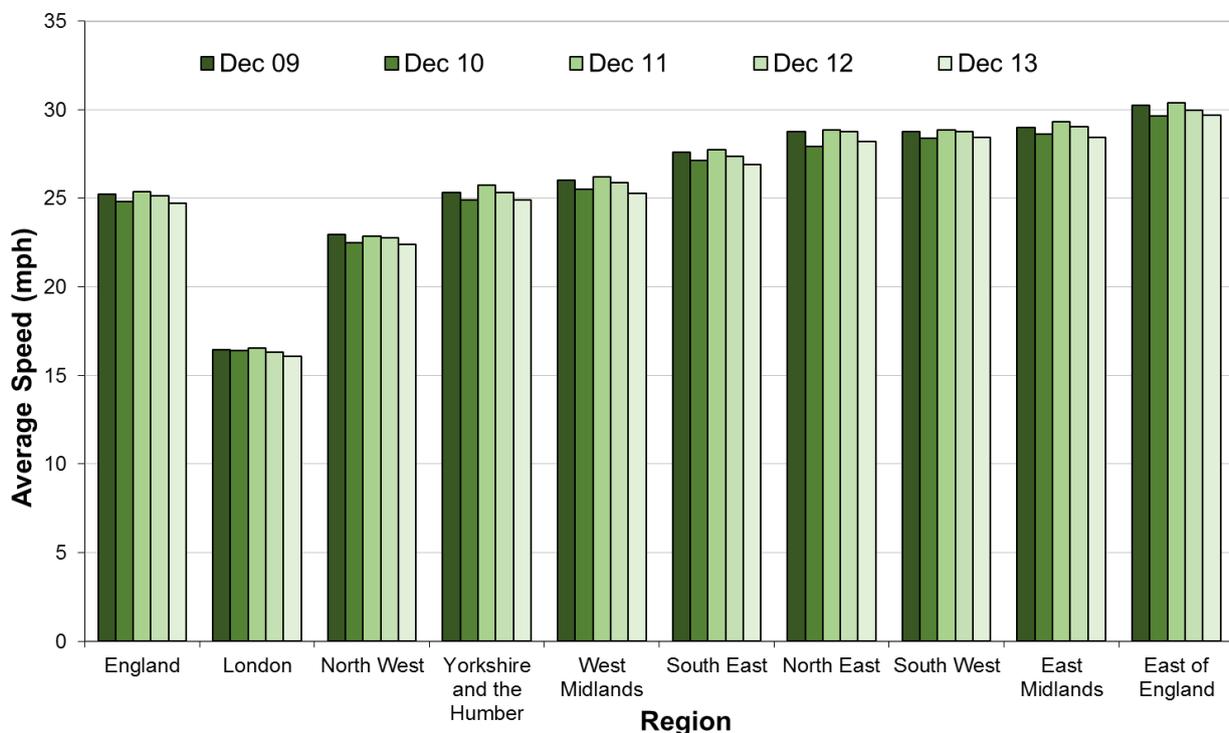
**Increase in vehicle fleet used to estimate journey times**

For data from September 2013, there has been an increase of around 25,000 vehicles in the fleet used to estimate journey times to produce the local congestion statistics (prior to this there were approximately 75,000 vehicles in the fleet). The size of the vehicle fleet used has always changed from month to month due to usage and sales, but the change in September 2013 is much larger than usual. Analysis of these additional vehicles shows that they are broadly representative of the current fleet in terms of vehicle type and journey times, but will increase coverage (reducing imputation levels) and so improving the quality of the local congestion statistics.

### Regional trends for local congestion

At a regional level, all nine regions in England experienced slower average weekday morning peak speeds during the year ending December 2013 compared to the year ending December 2012. Between these years, East Midlands and West Midlands experienced the greatest proportional decline in speeds (2.2%) across all the nine regions. The East of England continues to have the highest average weekday morning peak speed and London continues to have the lowest (at 29.7 mph and 16.1 mph respectively in the year ending December 2013). The differences in regional average weekday morning peak speeds will partly reflect physical differences in the types of roads in these areas. For example, in the East of England around 80% of locally managed 'A' roads are classified as rural compared to only 4% in London.

### Average vehicle speeds during the weekday morning peak<sup>1</sup> on local 'A' roads: by region, years ending December from 2009 (Table [CGN0206](#))



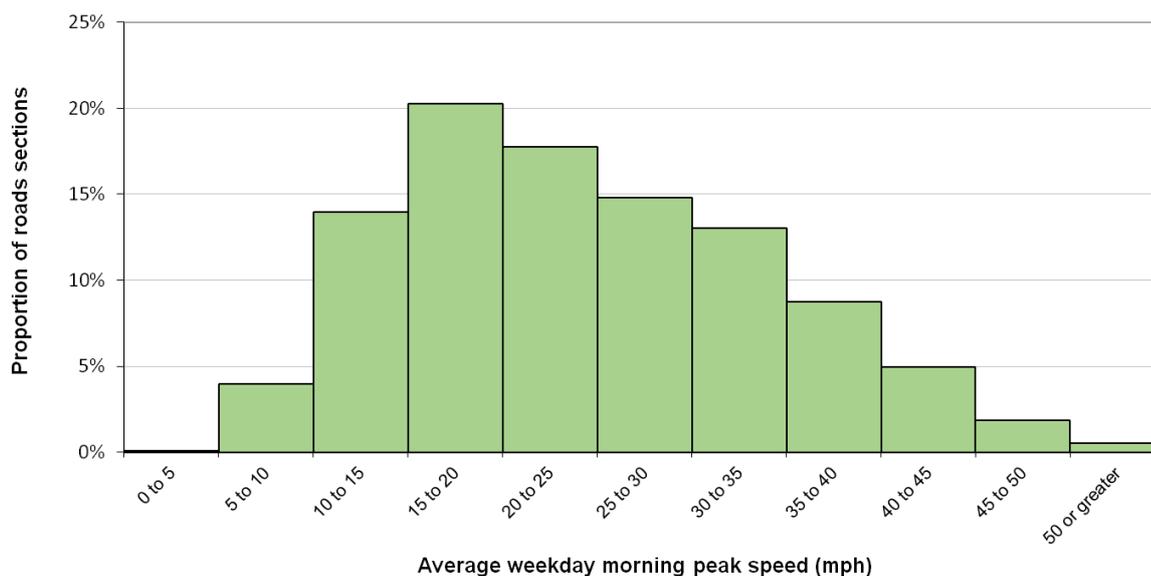
1. Morning peak defined as 7am to 10am. School holiday periods and the month of August are excluded.
  2. Average speeds have been flow-weighted using DfT traffic estimates
  3. Figures in this chart have not been seasonally adjusted.
- p = provisional

Statistics tables and maps on Congestion on local 'A' roads broken down by regions and local highways authorities can be found at:  
<https://www.gov.uk/government/organisations/department-for-transport/series/road-congestion-and-reliability-statistics#statistical-data-sets>

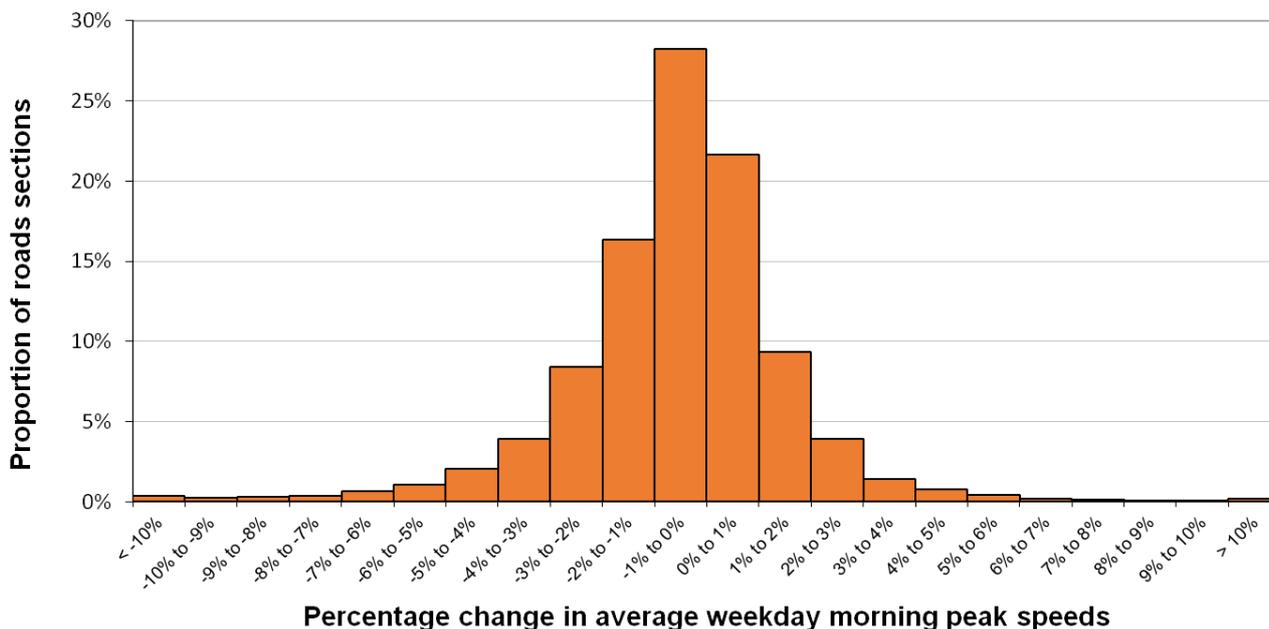
## Experimental Statistics: Congestion statistics for individual local 'A' roads

This month we have published average weekday morning peak speeds for individual local 'A' roads split by road name, local highway authority and direction of travel (e.g. A51 in Warwickshire, Northbound). These statistics are currently 'badged' as 'Experimental' and are undergoing evaluation. The analyses presented below are examples of how we can present the statistics for individual road sections. We are keen to receive feedback on these new statistics and supporting analyses. This will help us to determine their value and to inform whether the analyses presented below are published in future releases. If you'd like to provide us with any feedback, please get in touch using the contact details provided on the cover page of this release.

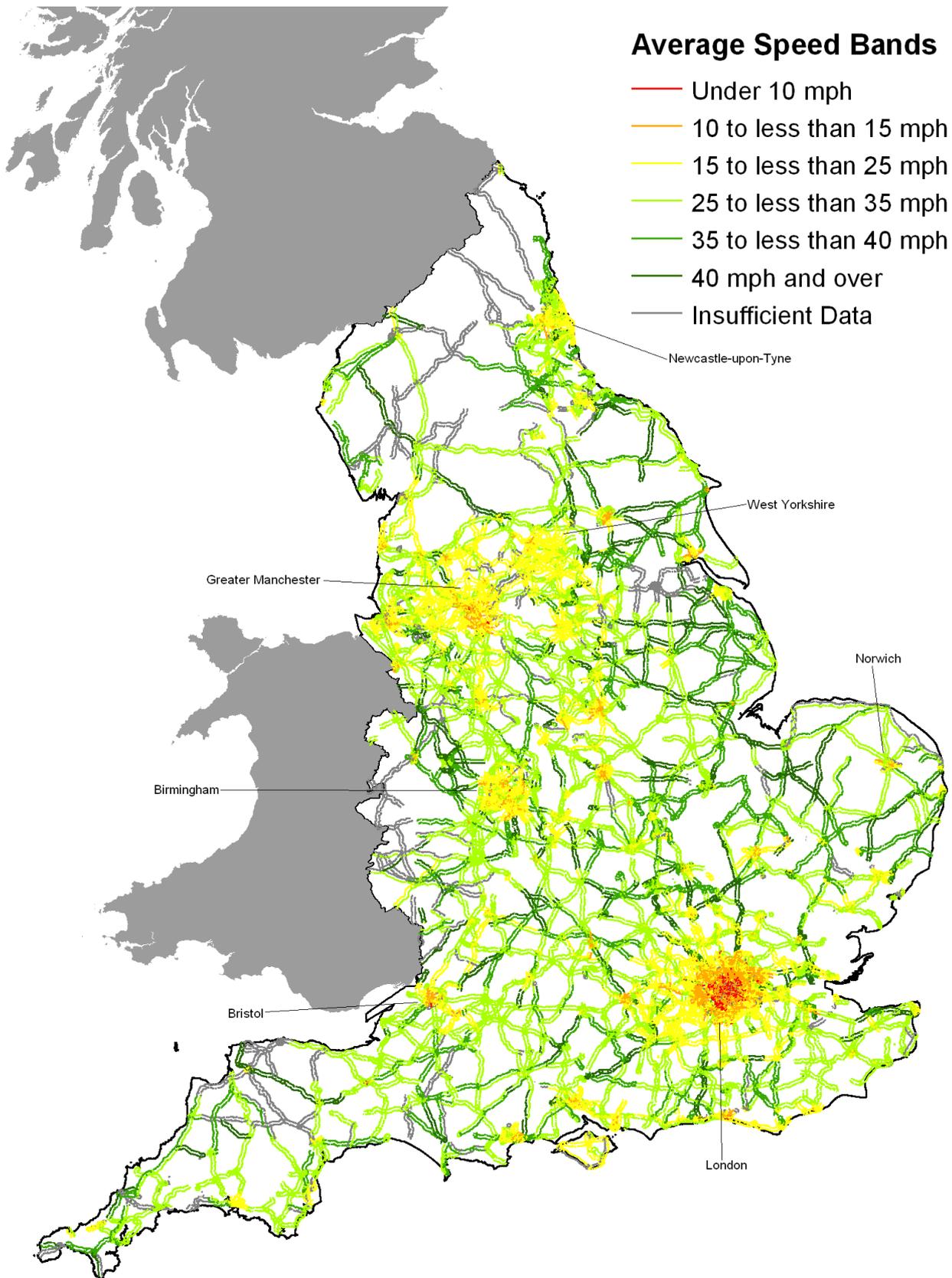
### Experimental Statistics: Average speeds during the weekday morning peak for individual local 'A' roads: year ending December 2013<sup>P</sup> (Table [CGN0209](#))



### Experimental Statistics: Percentage change in average speeds during the weekday morning peak for individual local 'A' roads: from year ending September 2013<sup>P</sup> to year ending December 2013<sup>P</sup> (Table [CGN0209](#))



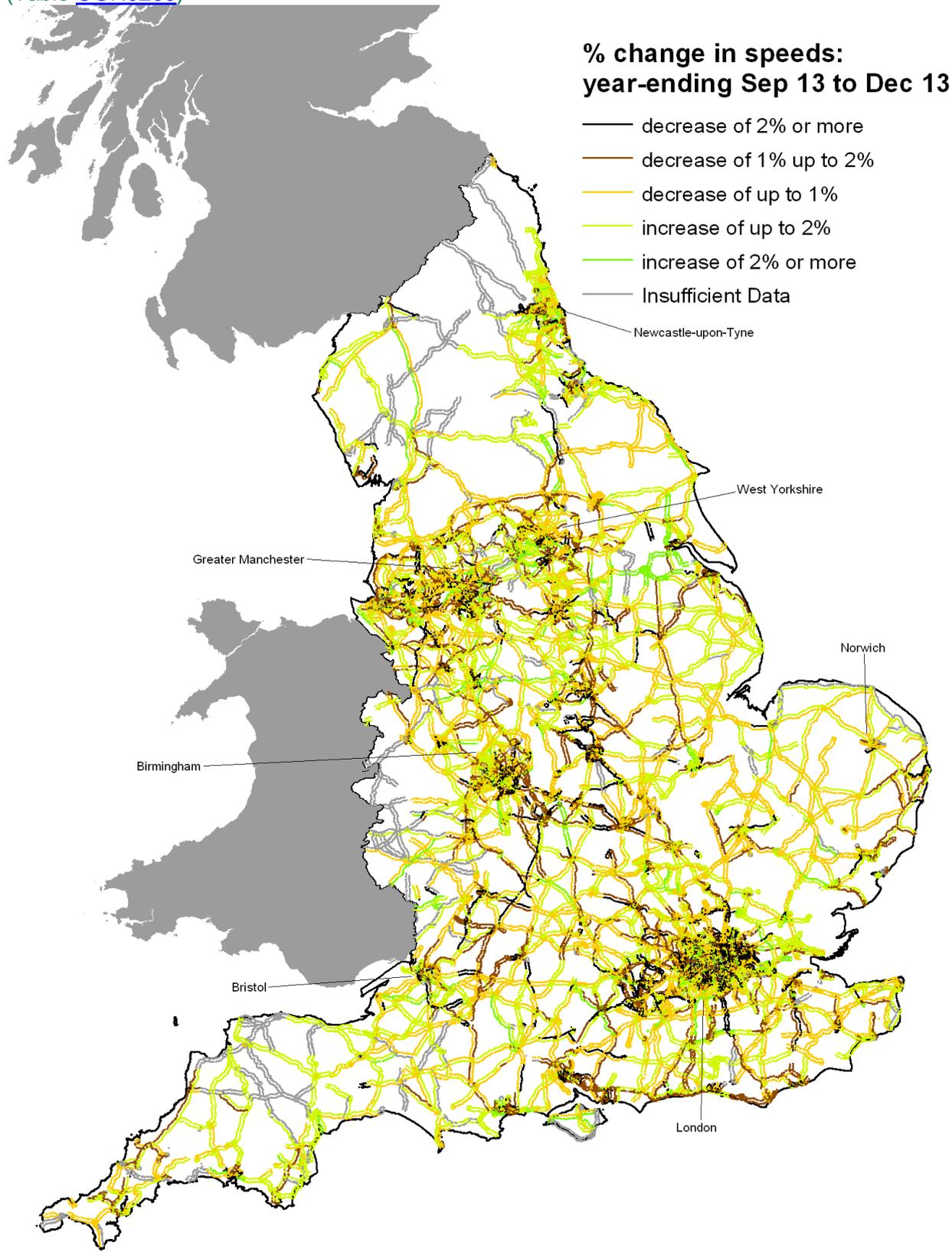
**Experimental Statistics: Average speeds during the weekday morning peak on individual local 'A' roads: year ending December 2013<sup>p</sup>** (Table [CGN0209](#))



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*Insufficient data* – Individual road sections shorter than 0.5 miles or where the level of imputation is high  
If you require a copy of this map in different colours please contact the congestion statistics team.  
p = provisional

**Experimental Statistics: Percentage change in average speeds during the weekday morning peak on individual local 'A' roads: from year ending September 2013<sup>p</sup> to year ending December 2013<sup>p</sup>**  
 (Table [CGN0209](#))



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*Insufficient data* – Individual road sections shorter than 0.5 miles or where the level of imputation is high  
 If you require a copy of this map in different colours please contact the congestion statistics team.  
 p = provisional

## Background information

### Strengths and weaknesses of the data

Being a measure of the average speed achieved during one of the busiest time periods, these statistics allow users to assess the trends in the level of congestion on locally managed 'A' roads over time. Reductions in the speeds reported suggest that general congestion levels on these roads have increased over the period while increases in speeds suggest congestion levels have fallen.

Because the measure estimates average speeds during school-term weekday morning peak period (classified as 7am to 10am), sample sizes for some months will vary significantly depending on when school holidays fall.

Trends in speeds, and therefore congestion, can be reliably assessed both nationally and at a regional or local authority level and although some data imputation is necessary, this is generally very small and has a minimal effect on the published estimates. However, users should exercise some caution as any small fluctuations in average speed estimates over time may be due to large changes in imputation levels. Different levels of imputation may be a result of the number of school days in an individual month (e.g. months with school holidays are likely to have higher levels of imputation). Detailed tables showing the amount of data imputation necessary in the calculation of each published statistic are available at: <https://www.gov.uk/government/publications/road-traffic-speeds-and-congestion-statistics-guidance>

Users should also exercise caution when assessing the statistics over short periods of time when temporary factors such as road works or bad weather may have influenced the speeds reported. This is particularly important when interpreting the data for relatively small areas where a small change on one or two roads can have a large effect on the overall average speeds reported. In addition, users should be cautious when comparing average speeds reported for different local authorities or individual local 'A' roads as a measure of the relative levels of congestion within these areas as physical differences in the types of roads and their speed limits will also have a large bearing on driving speeds.

### Methodology and technical detail

Full guidance on the methods used to compile the flow-weighted vehicle speeds on locally managed 'A' roads can be found here:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/51130/Methodology\\_for\\_calculation\\_of\\_flow-weighted\\_vehicle\\_speeds\\_on\\_locally\\_managed\\_A\\_roads.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/51130/Methodology_for_calculation_of_flow-weighted_vehicle_speeds_on_locally_managed_A_roads.pdf)

A detailed table showing the differences in calculated flow weighted speeds as a result of the additional 25,000 vehicles added to the vehicle fleet (as explained) is available at:

<https://www.gov.uk/government/publications/road-traffic-speeds-and-congestion-statistics-guidance>

Average speeds on individual local 'A' roads have not been presented for road segments less than 0.5 miles in length as they may give users a false impression of average speeds on those roads more generally. For example, very short road sections on the same road may be affected very differently by major junctions or traffic lights.

There are many interlinking factors that may have a bearing on the statistics published in this release. Amongst others, these include traffic volumes, road conditions, localised traffic interventions, driver behaviour and the weather. Recent statistics published by the Department relating to some of these areas are available at:

- Traffic volume and flow;

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

- Public attitudes towards road congestion;  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/51137/Public\\_attitudes\\_towards\\_road\\_congestion\\_November\\_2009\\_to\\_February\\_2010.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/51137/Public_attitudes_towards_road_congestion_November_2009_to_February_2010.pdf)
- British social attitudes survey: attitudes to transport.  
<https://www.gov.uk/government/publications/british-social-attitudes-survey-2012-attitudes-towards-transport>

## National Statistics

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

<http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html>

In July 2012, the United Kingdom Statistics Authority designated the national, regional and local highway authority level statistics in this publication as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

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/uploads/system/uploads/attachment\\_data/file/230511/pre-release-list-traffic-congestion-reliability.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/230511/pre-release-list-traffic-congestion-reliability.pdf)

## Experimental Statistics

The statistics for individual local 'A' roads in this publication are labelled as *Experimental Statistics*. These new official statistics are labelled as *Experimental* so that users and stakeholders can be involved in their development at an early stage. It is accepted and expected that the quality of *Experimental Statistics* improves in the light of stakeholder use and feedback – to the point that they can be formally designated as National Statistics.

## Next Release

The next release on local congestion statistics will be published on 8 May 2014. It will contain provisional information about average weekday morning peak speeds on local 'A' roads in the year ending March 2014. Figures on average speeds for September 2013 onwards will remain provisional until November 2014, once they are weighted by traffic flow information for 2013. Changes in our estimated figures on average speeds, from provisional to final, at local authority level can be found at:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/230522/la-data-quality-provfinaldiff.xls](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/230522/la-data-quality-provfinaldiff.xls)

## Request for feedback

We are always keen to receive feedback from users of transport statistics. If you have any comments about how the statistics in this release are presented or analysed, please contact us using the details listed on the first page of this release.