Department for Transport

Road Conditions in England to March 2018

The condition of local authority (LA) managed roads have remained stable in the most recent years. This follows a period of gradual improvement for classified 'A', 'B' and 'C' roads.

About this release

This annual release presents information on the condition of roads in England, as well as other aspects of highways maintenance.

Figures for road condition are available back to the financial year 2007/08, with the most recent available data covering the period 2017/18.

Automated survey machines and visual surveys are used by local authorities (LAs) and Highways England (HE) to determine the percentage of the network that *'should have been considered for maintenance' (*see side bar on page 3).

Regional and national figures include all LAs with data that passed validation checks.
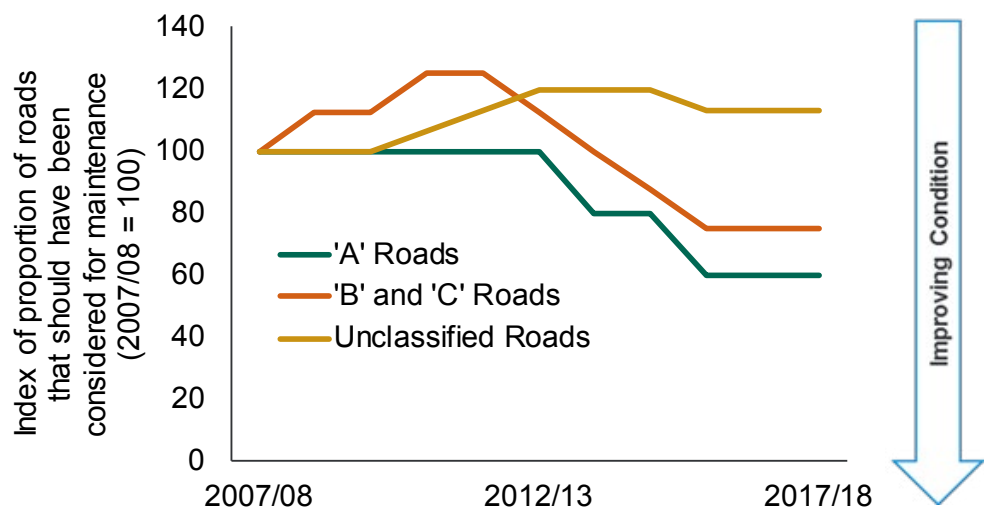
In this publication

In 2017/18 (year ending March 2018) the proportion of LA managed roads that should have been considered for maintenance was:
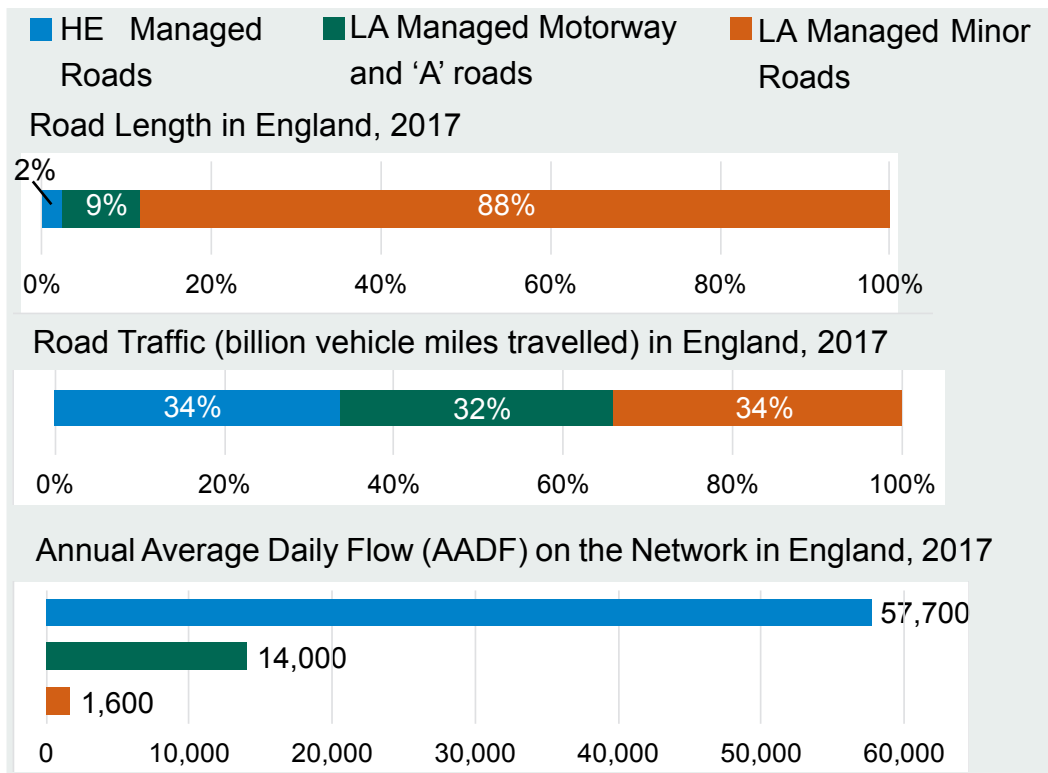
► 3% of 'A' roads;

► 6% of 'B' and 'C' roads;

► 17% of unclassified roads

These figures are in line with the previous 2 years. Prior to this 'A' roads, and 'B' and 'C' roads combined, had seen a period of gradual improvement (i.e. fewer roads considered for maintenance) since 2011/12. Unclassified roads had not seen the same improvement over this period.

Trend in the proportion of LA managed roads that should have been considered for maintenance, in England, by road type, 2007/08 to 2017/18 [RDC0120]

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Road Length and Traffic by Road Type, 2017

■ HE Managed Roads   ■ LA Managed Motorway and 'A' roads   ■ LA Managed Minor Roads

Road Length in England, 2017

2% 9% 88%

Road Traffic (billion vehicle miles travelled) in England, 2017

34% 32% 34%

Annual Average Daily Flow (AADF) on the Network in England, 2017

57,700
14,000
1,600

- Percentages may not sum to 100% due to rounding

Key Points for this Release

► There are many possible factors that can contribute to the changes in trends over time for the proportion of roads that should be considered for maintenance. For example, the weather, road maintenance strategies, funding, and the levels of road traffic and congestion can all affect the condition of the network.

► The timing of the surveys means that the vast majority of data would have been collected before the cold and wintery weather conditions experienced during the early part of 2018.

► Other measures of condition do exist. The Asphalt Industry Alliance carry out the Alarm Survey and report on a measure of structural condition alongside other measures (see here). The RAC also produce a pothole index using their members' breakdown data, and are using this as an ongoing measure of the state of the UK roads (see here).

Road Types in England

Highways England (HE) managed motorways and 'A' roads make up the Strategic Road Network (SRN). These are strategic roads that carry a high proportion of long-distance traffic.

All other road types are managed by local authorities (LAs). These consist of LA managed 'A' roads and motorways, and minor roads. The latter are made up of classified non-principal roads ('B' and 'C' roads) and unclassified ('U') roads, and these form the majority (88%) of the road network in England.

The number of vehicle miles travelled is fairly evenly distributed across each road type. However, the AADF (number of vehicles passing per 24 hours on a typical stretch of road) is far higher on the SRN compared with other road types due to the proportionate lengths of the networks.

Statistics on road length in Great Britain are published here.

Statistics on road traffic in Great Britain are published here.

Road Condition - Local Authority Managed 'A' Roads

LA managed 'A' roads account for around 9% of the road network in England. In 2017/18, the proportion of these roads that should have been considered for maintenance was 3%, in line with the previous 2 years.

Chart 1: Proportion of LA managed 'A' roads that should have been considered for maintenance, 2007/08 to 2017/18 [RDC0120 RDC0121]
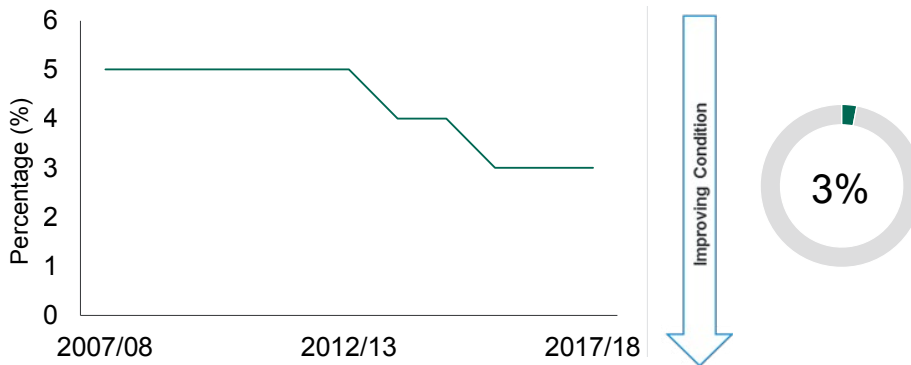
- LA managed motorways are not included in these figures; they account for less than 1% of the LA major road network.

There has been a gradual fall in the proportion of LA managed 'A' roads that should have been considered for maintenance over time, from 5% in 2012/13 to 3% in 2017/18.

Chart 2: Distribution of LA managed 'A' road results for the latest year, previous year and 5 years earlier [RDC0120 RDC0121]
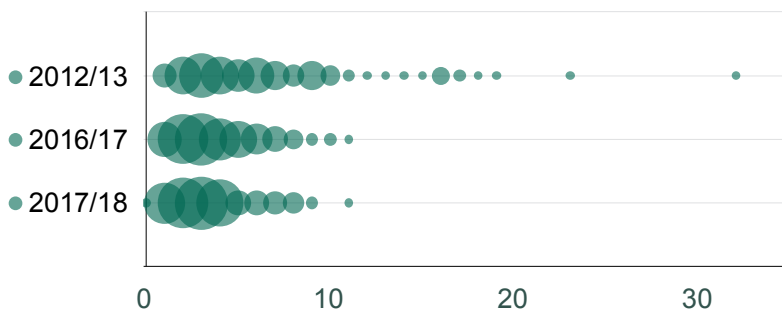
- The size of the bubble indicates the number of LAs reporting that percentage i.e. proportion that should have been considered for maintenance.

Percentage (%)

Compared to 2012/13, 78% of LAs (reporting data for both years) reported an improved result in 2017/18 (i.e. fewer roads that should have been considered for maintenance), 14% reported consistent results and 8% a worse result (i.e. a higher figure). These figures reflect the gradual improvement seen over this 5 year period at a national network level.

By comparison, 45% of LAs results remained consistent between 2016/17 and 2017/18, 41% reported a lower figure (i.e. an improvement) and 14% a higher figure. This reflects the stability seen at a national level over this period for LA managed 'A' roads.

Measuring Road Condition

The Road Condition Indicator (RCI) is made up of several factors, which combine to give an overall measure of the state of the road. The data can be used to make decisions about maintenance.

Based on their RCI score, the condition of the roads can be split into three categories (red, amber and green). Roads classified as red are those that are described as "*should have been considered for maintenance*" in this release. The roads categorised as 'red' will not necessarily require immediate treatment, but they should be inspected to determine whether maintenance is required.
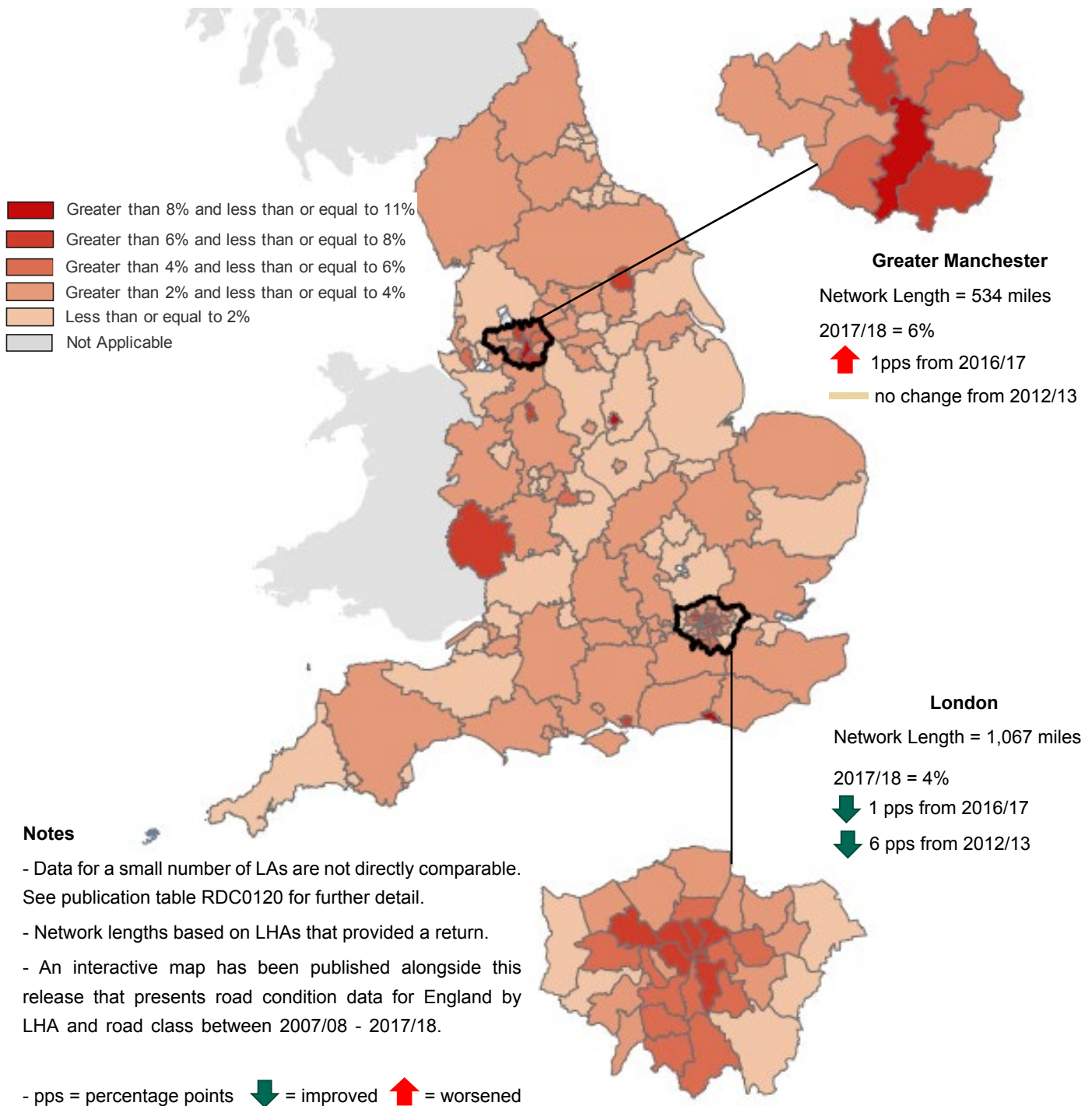
As data for other road condition categories (green and amber) are not currently collected, the figures should only be taken as an indication of whether condition is improving or worsening. Comparisons of road condition across different road types should be made with caution due to differing methods. See here the Road Network Size and Condition Statistics Guidance for further detail.

Map 1: Proportion of LA managed 'A' roads where maintenance should have been considered, by local authority in England, 2017/18 [RDC0120 RDC0121 Interactive Map]

Greater than 8% and less than or equal to 11%

Greater than 6% and less than or equal to 8%

Greater than 4% and less than or equal to 6%

Greater than 2% and less than or equal to 4%

Less than or equal to 2%

Not Applicable

Greater Manchester

Network Length = 534 miles

2017/18 = 6%

⬆ 1pps from 2016/17

━ no change from 2012/13

London

Network Length = 1,067 miles

2017/18 = 4%

⬇ 1 pps from 2016/17

⬇ 6 pps from 2012/13

Notes

- Data for a small number of LAs are not directly comparable. See publication table RDC0120 for further detail.

- Network lengths based on LHAs that provided a return.

- An interactive map has been published alongside this release that presents road condition data for England by LHA and road class between 2007/08 - 2017/18.

- pps = percentage points   ⬇ = improved   ⬆ = worsened

LA Managed 'A' Roads by Region

By region, the proportion of the LA managed 'A' roads that should have been considered for maintenance varied from 4% (London and the South East) to 2% (the North East and East Midlands). Compared to the previous year, there were only 3 changes at a regional level. These were a decrease of 1 percentage point for each of the North East, West Midlands and London. The variation across regions may be influenced by a range of factors as cited on page 2 of this release.

## Local Authority Managed 'B' and 'C' Roads

LA managed 'B' and 'C' roads form part of the minor road network in England. In 2017/18, 6% of LA managed 'B' and 'C' roads combined in England should have been considered for maintenance, the same as in the previous 2 years.

Chart 3: Proportion of LA managed 'B' and 'C' roads combined that should have been considered for maintenance, 2007/08 to 2017/18 [RDC0120 RDC0121]
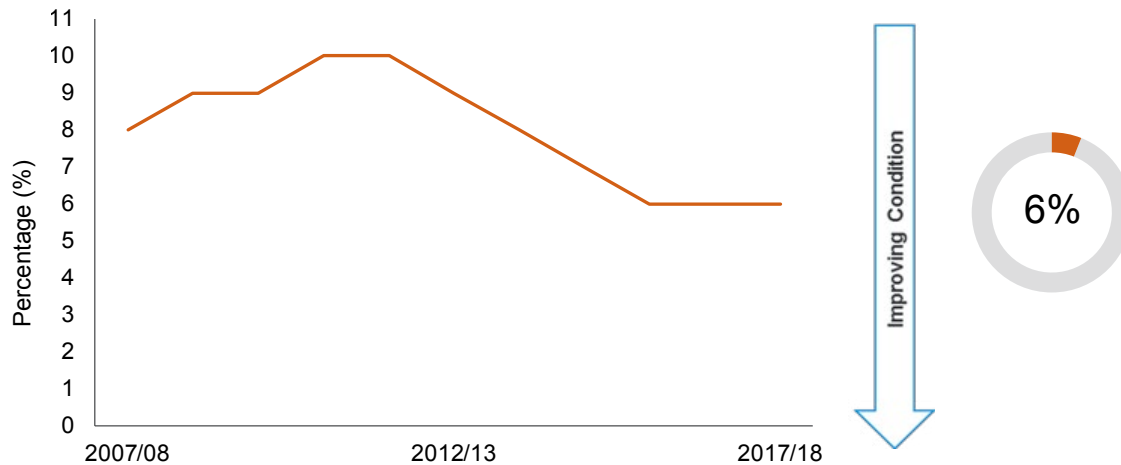
Prior to 2017/18 there had been a gradual improvement from a 2 year peak in 2010/11 and 2011/12. However, in each year since the start of the series, a higher proportion of LA managed 'B' and 'C' roads should have been considered for maintenance than LA managed 'A' roads.

Chart 4: Distribution of LA managed 'B' and 'C' road results for the latest year, previous year and 5 years earlier [RDC0120 RDC0121]
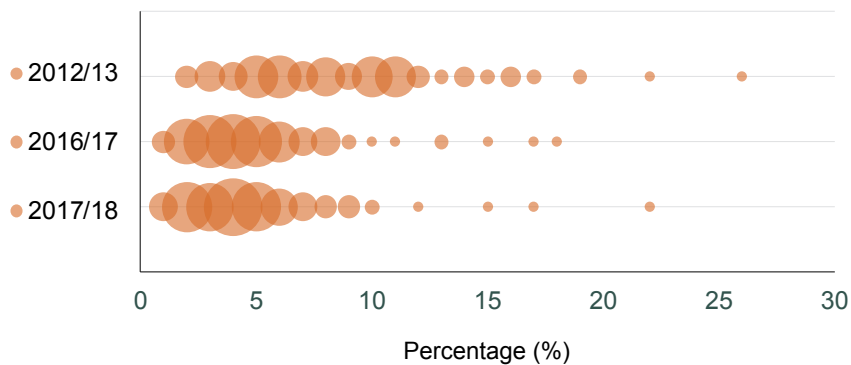
- The size of the bubble indicates the number of LAs reporting that percentage i.e. proportion that should have been considered for maintenance.

Compared to 2012/13, 86% of LAs (reporting data for both years) reported an improved result in 2017/18 (i.e. fewer roads that should have been considered for maintenance), 5% of LAs reported a consistent result in both years and 9% of LAs reported a higher figure. This reflects the gradual improvement seen over this 5 year period at a national level for LA managed 'B' and 'C' roads.

By comparison 29% of LAs reported an improved result in 2017/18 compared to the previous year, 48% of LAs reported a consistent result and 23% of LAs reported a higher figure. The high proportion of LAs reporting consistent results reflect the stable trend at a national level over this period.

Local Authority Managed Unclassified Roads

Chart 5: Proportion of unclassified roads that should have been considered for maintenance, 2007/08 to 2017/18 [RDC0130 RDC0131]

In 2017/18 the proportion of LA managed unclassified roads that should have been considered for maintenance was 17%. These figures are in line with the previous 2 years.
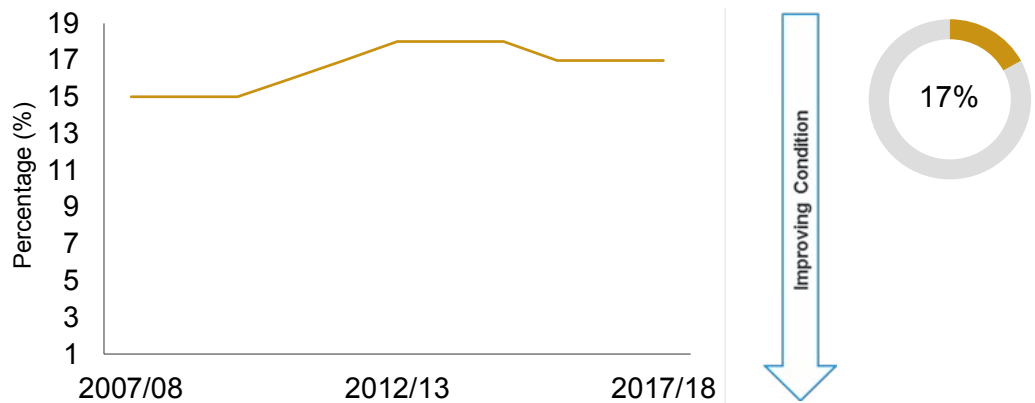
The chart shows data at the national level for **unclassified roads**. Data below this level should be compared with caution. The data collection is not a mandatory requirement. LAs are permitted to collect via different methods, with LAs using the method they consider most appropriate to monitor their network. The most common method in 2017/18 were visual surveys, with over 78% of LAs using solely this type (of those who returned valid data). It is noticeable that the method used appears to affect the results, with visual surveys generally indicating worse network condition than automated surveys.

Road Condition - Highways England Managed Roads

Chart 6: Proportion of the Highways England (HE) managed road network that should have been considered for maintenance, by road type, 2007/08 to 2017/18 [RDC0201]
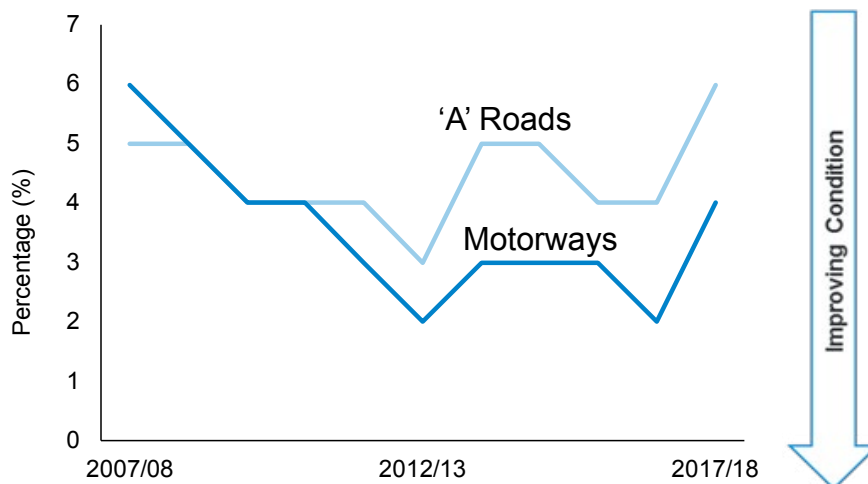
For HE managed motorways and 'A' roads, 4% and 6% respectively should have been considered for maintenance in 2017/18. The proportion broadly fell between 2007/08 and 2012/13 but has fluctuated thereafter with peaks in 2013/14 and 2017/18. The relatively small size of the SRN could mean these figures are subject to fluctuation, as a change in the proportion denotes a relatively small change in the amount of road. Overall network performance was unaffected by the increase between 2016/17 and 2017/18, with ORR's annual assessment of HE's performance indicating HE met its target of at least 95% of the network in good condition (see page 7 for more detail).

Skidding Resistance

Skidding resistance surveys are undertaken by local authorities and Highways England (see section 5 in the [Technical Note](#) for further detail). They provide a measure of the road surface contribution to the frictional forces developed between a vehicle's tyres and the road when accelerating, braking or cornering.
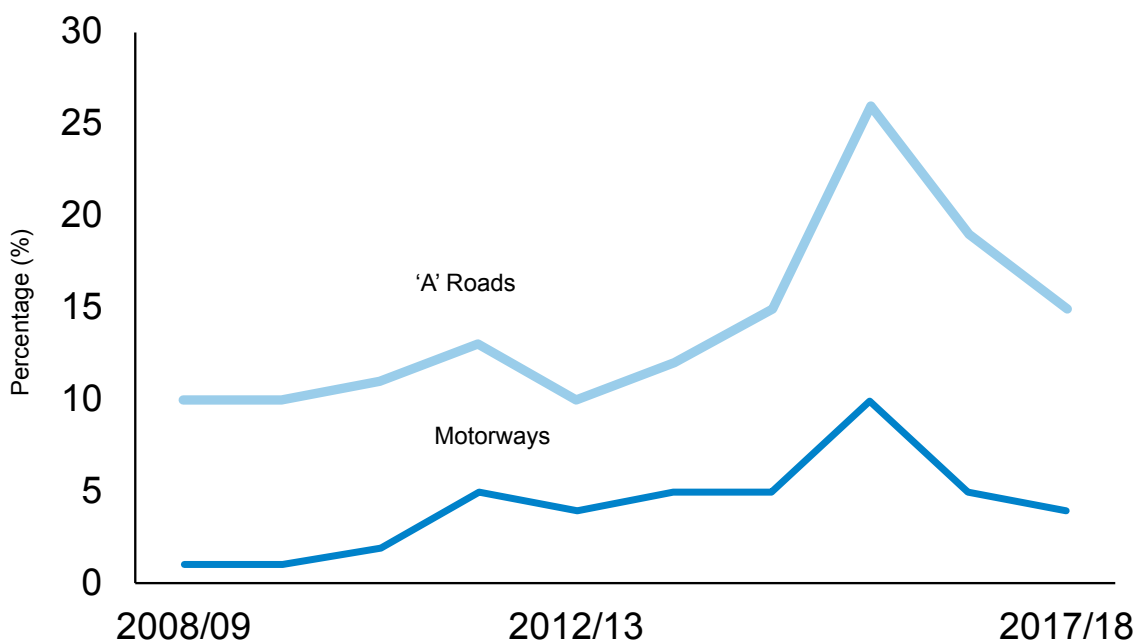
LA level skidding resistance data are typically averaged over 3 years to reduce the inherent variability in the data returns from LAs. Also other methodological factors, such as seasonal correction factors and site category reviews undertaken on the network, can contribute to the changes in the results shown.

Skidding resistance figures do not necessarily reflect safety levels on the network but rather sites where further investigation is required.

For the period 2015/16 to 2017/18, 28% of the LA managed motorway and 'A' road network in England required further investigation, an increase of 3 percentage points from the period 2012/13 to 2014/15. The London Boroughs had the highest proportion requiring further investigation, at 52%.

In 2017/18, 4% of the HE managed motorway required further investigation, while for HE managed 'A' roads this was 15%, both falling from a peak in 2015/16.

Chart 7: Proportion of HE managed roads requiring further investigation for skidding resistance, by road type, 2008/09 to 2017/18 [RDC0210]

Maintenance Treatments on Local Authority Managed Roads

Different types of treatment are applied to sections of road to preserve, repair or improve the condition. These are influenced by factors such as weather, funding and nature of the defect.

The type of road selected for treatment by an LA is likely to include a broader group of roads than just those that should have been considered for maintenance. **(see side bar on page 3)**.

Chart 8: Percentage of local authority managed roads receiving maintenance treatments in 2017/18 [RDC0320]
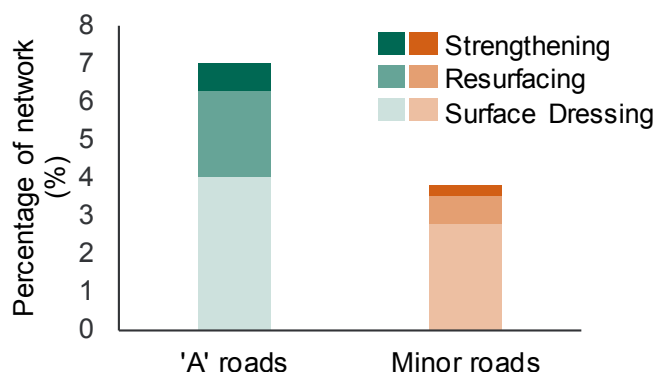
In 2017/18, 7.0% of LA managed 'A' roads and 3.8% of minor roads ('B', 'C' and 'U' roads) received maintenance treatment, both slightly lower than the previous year. Surface dressing accounted for 57% and 74% of all treatments on LA managed 'A' roads and minor roads respectively in 2017/18. Definitions for each treatment type can be found here.

Maintenance Expenditure on Roads in England

Chart 9: Maintenance expenditure by road class, in England, from 2012/13 to 2017/18 [RDC0310]
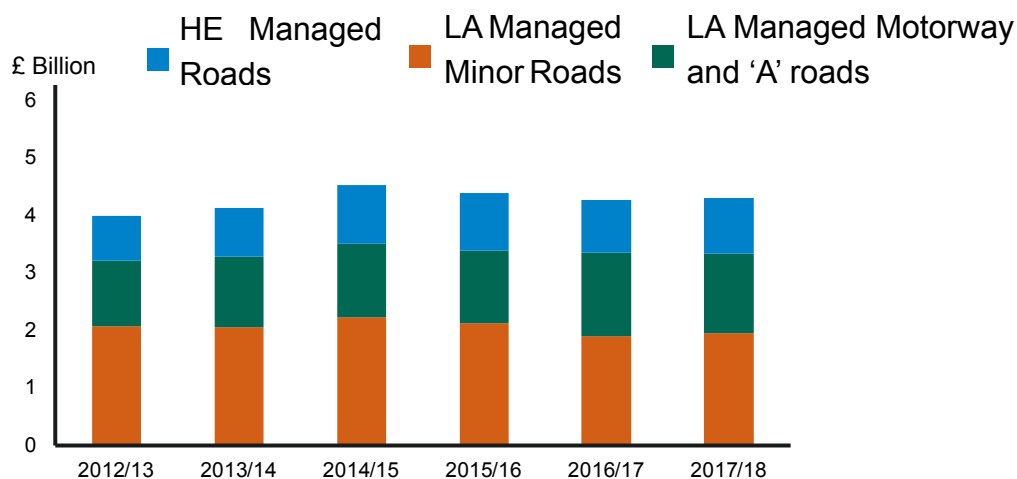
- **Chart excludes Highways Maintenance Policy, Planning and Strategy (HMPPS) as this cannot be broken down by local authority road type. HMPPS is included in figures in the text below.**

In 2017/18, £4.7 billion was spent on the maintenance of roads in England. Of this, £1 billion was spent on HE managed motorways and 'A' roads, and £3.7 billion on LA managed roads. Spend on minor roads was higher in 2017/18 compared to the previous year, the first increase since 2014/15. Spend on LA managed 'A' roads and motorways decreased.

Roads Funding

Funding for local road maintenance from DfT includes a block capital grant, and several smaller elements.

In 2017/18 these elements included £100 million to LAs in England outside London for the Highways Maintenance Challenge Fund and £75 million through the Pothole Action Fund. An additional £46 million was announced in December 2017. At the end of the period, £100 million was announced for Local roads affected by the winter weather.

In the Spending Review period (2015/16 to 2020/21) DfT will provide over £1.5 billion to LAs through the Integrated Transport Block for capital investment in small transport improvement projects.

Background Notes

Technical information

Further information about road condition data and surveys can be found in the guide, notes and definitions and technical note, which can all be found on the Road Condition Statistics webpage: https://www.gov.uk/government/collections/road-network-size-and-condition.

Further data on road expenditure and on road construction can be found in tables TSGB0717 to TSGB0720: https://www.gov.uk/government/statistical-data-sets/tsgb07.

Further information on the Single Data List can be found here: https://www.gov.uk/government/publications/single-data-list.

Official Statistics

Official Statistics are produced to high professional standards as per the Code of Practice for Official Statistics. They undergo regular quality assurance reviews to ensure they meet customer needs.

Details of ministers and officials who received pre-release access to these statistics up to 24 hours before release can be found in the pre-release access list: https://www.gov.uk/government/publications/roadnetwork-size-and-condition-statistics-pre-release-access-list.

Strengths and Weaknesses

Figures in this publication come from a wide range of sources. Consequently, the accuracy of figures will vary between tables. Users are recommended to refer to separately published guidance for more detail on how information for each table was collected: https://www.gov.uk/government/publications/road-network-size-and-condition-statistics-guidance

SCANNER (Surface Condition Assessment for the National Network of Roads) data are collected using automated road condition survey machines. Although each machine is accredited for accuracy and readings fall within the accepted boundaries of the SCANNER specification for road condition, there is still variability between the results that each machine delivers. It can lead to small changes in the figures over time that are for reasons beyond the condition of the road, and above the expected range of variability that already exists within the data. Caution should therefore be taken when comparing the figures over time, particularly for the LAs and regions flagged in the publication tables.

Users should note that different survey methods are used for different types of roads in some local authorities. While visual surveys are largely used for unclassified roads, automated survey machines are the most common method for 'A', 'B' and 'C' roads. The method used will affect the results.

The next update, Road Conditions in England: 2019, and accompanying tables are due to be published in 2020. In the meantime, continued engagement with stakeholders will be undertaken to improve the usability and relevance of the statistics (roadmaintenance.stats@dft.gov.uk).

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