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The Condition of England's Local Roads and how they are Funded

David Bayliss
November 2015

The Royal Automobile Club Foundation for Motoring Ltd is a transport policy and research organisation which explores the economic, mobility, safety and environmental issues relating to roads and their users. The Foundation publishes independent and authoritative research with which it promotes informed debate and advocates policy in the interest of the responsible motorist.

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About the Author

David Bayliss is a chartered engineer and town planner. He started his career with Manchester Corporation and then moved to the Greater London Council, where he became Chief Transport Planner. Subsequently, as Director of Planning for London Transport, he was involved in planning the Docklands Light Railway, the Jubilee Line Extension and Croydon Tramlink. On retirement from London Transport in 1999, he was a director of Halcrow Consulting for the following ten years. During his career he has been involved in almost all aspects of domestic transport and has been an advisor to a number of international organisations and overseas governments. He has written and lectured widely and is currently a trustee of the Rees Jeffreys Road Fund and of the RAC Foundation.

Disclaimer

This report has been prepared for the RAC Foundation by David Bayliss. The report content reflects the views of the author and not necessarily those of the RAC Foundation.

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List of Abbreviations and terms

AIA	Asphalt Industry Alliance
ALARM	Annual Local Authority Roads Maintenance Survey
CBT	Campaign for Better Transport
CIPFA	Chartered Institute of Public Finance and Accountability
CPRE	Campaign to Protect Rural England
DCLG	Department for Communities and Local Government
DfT	Department for Transport
LEPs	Local Enterprise Partnerships
LGA	Local Government Association
LHAs	Local Highways Authorities
LTAs	Local Transport Authorities
LTBs	Local Transport Bodies
NAO	National Audit Office
NHTPSS	National Highways and Transport Public Satisfaction Survey
OBR	Office for Budget Responsibility
PFI	Private Finance Initiative
SRN	Strategic Road Network
TGM	Transport for Greater Manchester

Local authority roads in England:

Comprise **over 97%** of the road network length;

Carry **2/3** of motor traffic and **almost all** of cycle and pedestrian traffic;

Provide **access** to over **25 million** properties.

Average periods between **resurfacing** range from

20 years (London Principal) to **100 years**

(unclassified roads outside of London).

There is a **maintenance backlog**

of **12 years** outside of London

and **15 years** in London for local roads.

4 out of 5 people agree with the suggestion that

motoring taxation receipts should be **invested** in road maintenance.

In **2014/15** an estimated **2.5 million potholes**

had to be filled at a **cost** of **£136m**.

Capital spending on local roads

maintenance has been **£1.8bn/year**

over the **last two years** – the

lowest level since **2001/02**.

Poor local roads cost **£5bn** a year

to **small and medium-sized enterprises** in wasted staff time,

fuel costs, vehicle repair costs

and production.

Local highways authority maintenance spending **reduced**

by **15%** between **2009/10** and **2013/14**. A further

35% reduction in local highways maintenance budgets is estimated

by the **end of the decade**.

Foreword

Rarely has there been such a focus on transport infrastructure as we are experiencing today. The Government is making large sums available for investment in our railways and roads. Much of the debate is about adding capacity, which is undoubtedly needed as both the economy and the population grow.

But what about the roads we already have? Maintenance of the existing network might not conjure up the same excitement as brand new projects, but it is arguably more important. Because this is the network we already rely on to get to work, to the shops, to school: the network that commerce relies on to do business.

So it must be in good order.

With the publication of the Road Investment Strategy last year we can see the picture for Highways England, as the stewards of our most important roads. But it left us wondering how clear the picture was for the local authorities responsible for the vast majority of roads we use every day.

We hear that council budgets are being squeezed, but do we understand how those budgets are made up? Where does the money come from and with what restrictions?

To answer these questions we commissioned RAC Foundation trustee David Bayliss to cast a forensic eye over the ways that local roads get funded. His report is illuminating and worrying in equal measure. Because it paints a picture of complexity and uncertainty, two of the biggest enemies of good infrastructure management.

The conclusions of the Government's impending Spending Review should provide some clarity – we hope the Chancellor isn't tempted to depart from his six-year capital commitment.

It will then be for local authorities to make the best of the funds available to them, working across boundaries and involving partners, such as the Local Enterprise Partnerships. How they might best do that is an issue the Foundation will return to shortly.

Steve Gooding

A handwritten signature in black ink that reads "Steve Gooding". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Director, RAC Foundation

Executive Summary

The condition of local roads in England is a matter of concern to the public, local politicians and highway engineers. This report brings together what is known about the condition of these important assets, how they are funded and their prospects for the next five years.

Non-trunk roads in England comprise over 97% of the network length, carry two thirds of motor traffic and almost all cycle pedestrian and other movements; as well as providing access to over 25 million properties and easements for key public utilities.

Recent developments in the governance and financing of the Strategic (trunk) Road Network promise certainty of funding and its improved condition. This contrasts with the prospects for local roads; the responsibility of the 153 local highway authorities (LHAs), which much more problematic.

National statistics on local road conditions are very limited but can be supplemented by surveys (ALARM) carried out annually by the Asphalt Industry Alliance. Together these show:

- 4% of A roads and 8% of B&C roads carriageways should be considered for maintenance – a slight reduction in recent years, but 18% of unclassified roads are in this category and this is increasing.
- 23% of A roads carriageways require further investigation for skidding problems – a small reduction in recent years.
- 8% of A roads and 4% of other road carriageways receive some form of treatment annually but over half of this for A roads, and three quarters for other roads, is in the form of surface dressing. For both types less than 1% is strengthened each year.
- This low level of treatment is confirmed by the ALARM surveys which show average periods between resurfacing ranging from 20 years (London Principal) to 100 years (Rest of England unclassified) against an ideal of 10-20 years.
- The time it would take to clear the maintenance backlog is estimated to be 12 years outside London but has recently grown to 15 years in the Capital.
- The incidence of potholes has risen sharply in recent years (except in London) and in 2014/15 the AIA estimated that 2½ million potholes had to be filled at a cost of £136m, even then successful compensation claims exceeded £20m and much damage to vehicles is unaccounted for.
- The utility companies dig up the roads about 25 thousand time a year and, apart from disruption to road users, this can leave the repaired carriageway more vulnerable to subsequent deterioration.

The condition of local roads matters to residents, road users and business and this is shown by the results of several surveys – which have found:

- Whilst the public put road safety at the top of their transport concerns this is closely followed by the condition of roads and pavements and the condition of

roads is the least satisfactory aspect of their transport experiences. When asked which aspect of transport need most improvement, the condition of roads is in first place with that of pavements following in second place.

- A suggestion that road tax receipts should be invested in roads maintenance attracted the support of 4 out of 5 people surveyed in a poll for the Local Government Association.
- A survey for the AIA found that badly maintained local roads are costing small and medium-sized enterprises £5 billion a year in wasted staff time, production delays, increased fuel consumption and vehicle damage repairs; and just one in 25 of respondents thought the local roads used by their business were very well maintained, while nearly 10 times as many said their local roads were not very well maintained.
- A survey for the CBI found that more than half of UK companies (52%) report a worsening of motorways in the last five years, and 65% see the same in local roads.

A critical factor in maintaining roads to a good standard is the availability of sufficient, consistent and reliable funding. Funds come as either ‘capital’ which supports renewals and improvement or ‘revenue’ which pays for routine maintenance. Local authorities in England rely heavily on grants from central government to fund their roads maintenance (and other services) and the provision of these grants is by different Departments of State; Transport (DfT) for ‘capital’ and Communities and Local Government (DCLG) for ‘revenue’.

Capital expenditure is financed from a range of sources including borrowing and capital receipts as well as central government grants – which come mainly in the form of the highways maintenance block grant. This has been falling in recent years – by 18% in real terms between 2011/12 and 2014/15. During this period, mainly to help local authorities cope with effects of harsh winters, the DfT also provided over £300m of ‘one off’ grants.

The DfT has recently changed the maintenance block grant regime to provide a total of £976m/year (cash) for each of the six years 2015/16-2020/21 with an element depending on how quickly LHAs adopt efficient maintenance practices and an element to help with particular problems that can’t readily be dealt with through the basic maintenance funding. This is a welcome improvement although LHAs funding needs remain substantially in excess of this grant.

Other capital grants that can be used for the maintenance of local roads include the Integrated Transport Block Grant (£258m/year – allocated via the Local Enterprise Partnerships), the Local Growth Fund (totalling up to £12bn) and more recently through the newly established Local Transport Bodies. As yet there is little evidence of local highway maintenance being given a high priority in the allocation of these.

Over the last few years some LHAs have entered into Private Finance Initiatives with private sector partners. These are funded by a separate PFI grant worth about £250m in 2014/15.

Capital spending on local roads maintenance has been running at £1.8bn/year over the last two years – its lowest level since 2001/02.

Revenue spending on LHA roads maintenance is funded from a combination of central government grants, council tax receipts and business rates with close on three quarters of all income coming from the centre. Overall local authority revenue expenditure, as part of the government's economic policy, has been reducing of late. Although highway maintenance is a component of the local needs calculation of the DCLG grant it is not ring fenced and so does not have to be used for roads purposes.

With growing demands for other local services some, such as child and adult social care, are very difficult to control, highways maintenance budgets are being squeezed between funding for these and reductions in overall revenue spending. As a result LHA maintenance spending has been reduced by 16% between 2009/10 and 2013/14 and this reduction has largely affected spending on minor roads.

The prospects for the next few years are even worse, with an analysis by the LGA estimating a 35% further reduction in local highway maintenance budgets by the end of the decade. If this is realized, the significant improvements in prospect from the new DfT capital grant regime will be in jeopardy as the lack of routine maintenance will accelerate the deterioration of local authority highway assets with a consequent expansion of the structural maintenance backlog – which the new DfT grant regime is designed to prevent.

1. Introduction



The condition of England's Roads has been a matter of public concern for a number of years and especially during and following the severe winter of 2010/11, episodes which seem likely to occur more frequently with climate change (IPPC, 2012: Table 3-1). There are real concerns that the roads are not set to improve in the near future. An important factor in how well England's local roads are maintained is the availability and security of funding. Where the money comes from, who determines spending priorities and how these are made is a mystery to all but a few specialists. This report pulls together what is known from nationally available statistics what about the condition of local roads in England, how these road conditions are perceived by the public and business community and how they are financed.

1.1 Background

Local roads in England comprise 41kms of motorway, 28,183kms of 'A' roads and 266,923kms of minor roads. These make up 1.35% of the motorway network, 87% of 'A' roads and the entirety of minor roads; making 97.6% of the complete network (DfT, 2015a). The proportion of roads administered by

local highway authorities (LHAs) has grown in recent years following 'de-trunking' of some major roads and the increase in the length of the minor road network with new housing and commercial developments. This has added over five thousand kilometres to the English local road network since 2000 (DTLR, 2001: Table 3.20).

Local authority roads carry over two thirds of the country's motorised road traffic – roundly 300bn vehicle kilometres (vkms) a year (DfT, 2015b: Table TRA0103) – as well as accommodation almost all foot and cycle traffic. As well as providing access to 25 million or so properties (estimated from DCLG, 2012a; 2015a) these roads act as local distributors, form the bulk of most urban road networks, provide vital regional linkages and, of course, access to the national road network which would be unable to do its job without the local road system to feed traffic onto and collect traffic from it. As well as enabling mobility and access, local roads provide easements for most of the gas, electricity, drainage, water and cabled telecommunications networks.

The local road network is managed by 153 local highway authorities (DCLG, 2014a: Annex D) which are responsible for maintaining, managing and, where necessary, improving their section of the network. This includes carriageways, footways, cycleways and verges and planting as well as drainage, street lighting, bridges and culverts. As well as maintaining these assets in good order they have a duty to promote the use of their roads in a safe and efficient way by all types of road users, and meet increasingly demanding standards of environmental performance¹.

The prospects for local roads do not show the promise of those for the Strategic Road Network (SRN) which have improved significantly since the reforms announced in July 2013. The SRN has become the responsibility of Highways England (DfT, 2013a). There is now an agreed (national) Roads Investment Strategy (DfT, 2014a) which includes investing over £15bn by 2021 with a clear set of performance specifications (DfT, 2015c). To help underpin the commitment to improve the national roads infrastructure the Vehicle Excise Duty (VED) bands for new vehicles will be changed from 2017 to protect the revenue yield and put into a new Roads Fund to pay for sustained investment in roads (HMT, 2015a). The DfT and Highways England have also recently embarked on planning for the second tranche of the national roads investment programme from 2021 to 2025 (Highways England, 2015).

¹ Various Acts of Parliament including the Highways Act 1980, the Road Traffic Regulation Act 1984 & the Traffic Management Act 2004.

2. The Condition of England's Local Roads



2.1 Context

The measurement of the condition of roads is a complex task for two reasons. Firstly there is a diverse range of components on the surface (carriageways, verges, footways/cycleways; beneath the surface (drains tunnels, culverts and bridges); above the surface (bridges) and street furniture (lighting and signage). So a simple metric of highways condition would be of little value. Secondly the condition of some types of assets is hard to establish. Many parts of the road fabric are buried, or hidden from view in some other way, making direct inspection difficult and costly. Also the scale of the local road network, with myriads of local variations of condition of its many components limits the utility of simple indicators.

Whilst the condition of the road surface is the most obvious and perhaps the most important aspect of highway conditions uneven footways can cause pedestrians to trip with potentially severe consequences for the frail and elderly and whilst small defects in the carriageway may not be a problem for motor vehicles they can be a real threat to cyclists and discourage the take up of this mode of transport.

Over recent years increased understanding of the performance of parts of the road system and improvements in measurement techniques have resulted in changes in which the condition of road pavements² have been measured. Whilst this means that modern metrics are more reliable it makes comparison over historic time more difficult. For example in the 1980s (DoT, 1983: Table 2.33; Table 2.34) road conditions were indicated by the proportion of the network (carriageways) with more than 5 or 20 years of residual life and whether their condition was improving or deteriorating. In the 2000s condition monitoring also included footways and verges (DTLR, 2002: Section 3). Currently the main condition indicators are the percentage of roads (carriageways) where maintenance should be considered; where skidding resistance required further investigation and where surface conditions required further investigation (DfT, 2015d).

The way conditions are assessed have changed with visual and deflectographic surveys being replaced by the use of vehicle mounted scanners coupled with computer analyses allowing a range of carriageway parameters to be estimated quickly and accurately.

There is no systematic reporting of the condition of most of the other local roads asset components at the national level and therefore the national indicators can only be used as a partial measure of roads asset conditions and the need for maintenance and renewal activity. The only data in respect of road maintenance that local authorities are required to provide to central government are:

- principal roads where maintenance should be considered;
- non-principal classified roads where maintenance should be considered;
- skidding resistance surveys of principal roads and
- road lengths receiving maintenance by class and type of treatment (DCLG, 2015b).

This is less than has been required in the past which has included (DTLR, 2002):

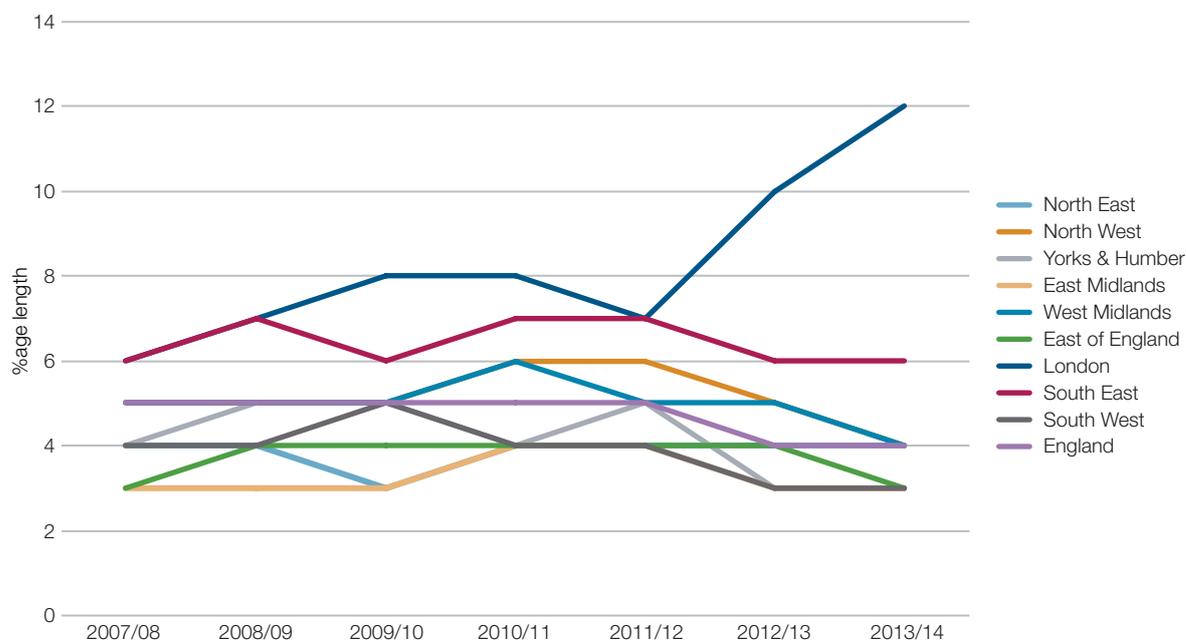
- visual survey of carriageway defects by, type of deterioration and road class;
- visual survey of footway deterioration and footway trip hazards by road class;
- condition of kerbs by road class;
- percentage of network requiring close monitoring of structural condition by road class;
- percentage of network where structural maintenance should be considered by road class;
- skidding resistance by road class and
- percentage of road network by residual life³.

² Pavement here is used to denote the fabric of the carriageway: sub-base, base and surface material – not the footway as in common parlance.

³ The number of years before investigation for remedial treatment.

2.2 The National Roads Condition Survey findings

Figure 2.1: Length of LHA 'A' roads where maintenance should be considered, 2007/8-2013/14

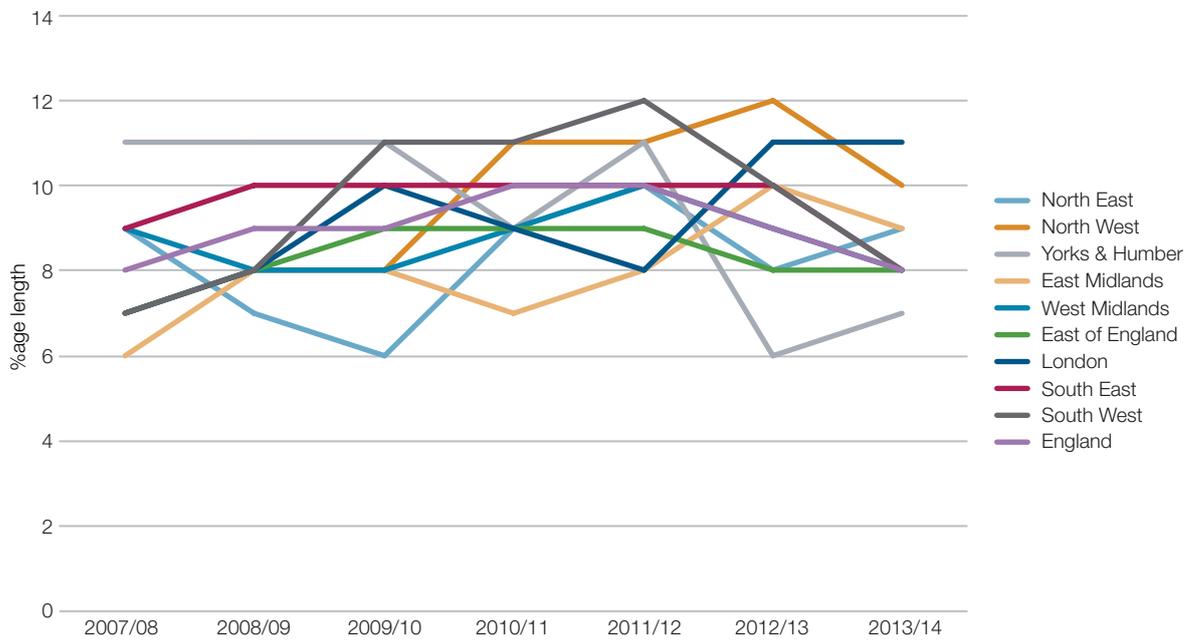


Source: DfT (2015e)

At the central level therefore, rather less is known currently about the condition of local roads than has been the case in the not too distant past. Indeed in its report on maintaining strategic infrastructure: roads, the National Audit Office recommended that the DfT should improve its understanding of the current condition and future needs of the local road network, including structures (NAO, 2014).

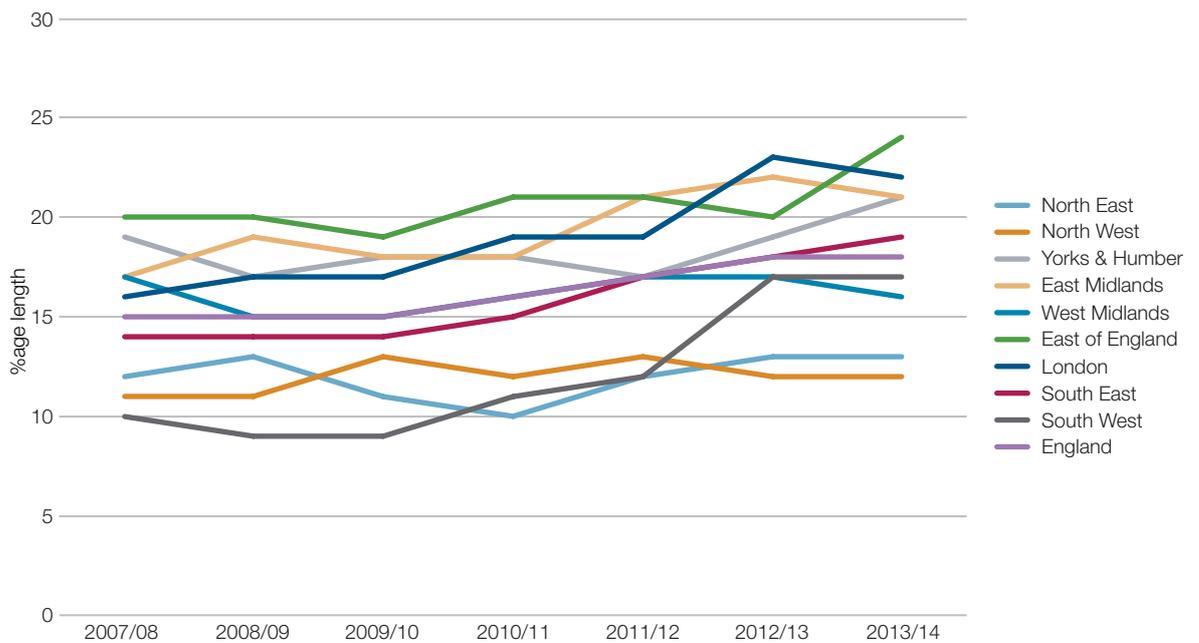
Using the indicator 'where maintenance should be considered' there has been little change in this for local authority A roads over the seven years shown in Figure 2.1 – down from 5% in 2007/08 to 4% in 2013/14. However there are regional differences, with the London and the South East being significantly worse than average and conditions in London appearing to have worsened noticeably over the last couple of years.

Figure 2.2: Length of B & C roads where maintenance should be considered, 2007/8-2013/14



Source: DfT (2015e)

Figure 2.3: Length of unclassified roads where maintenance should be considered, 2007/08-2013/14



Source: DfT (2015f)

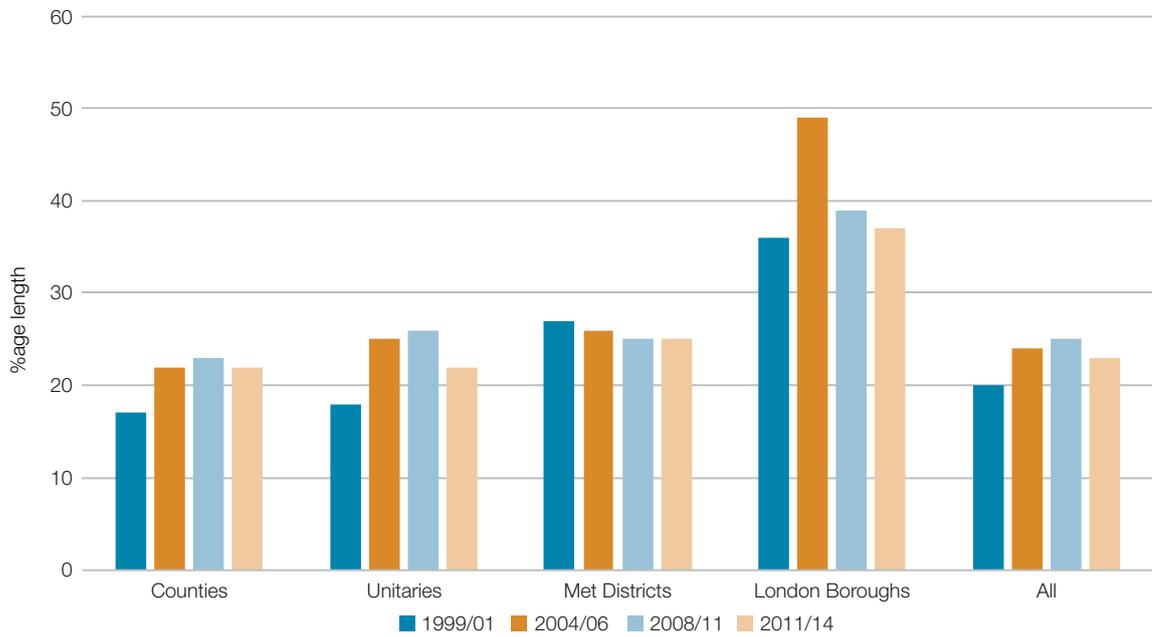
The potential needs for maintenance of B & C roads is greater than for A roads having averaged 9% of their length being considered over the seven year period shown in Figure 2.2 and standing at 8% in 2013/14. Again London and the South East regions fair worse than average, as do Yorkshire and Humberside and the South West although both regions reduced the length of roads in this category towards the end of the period.

For unclassified roads again the proportion which should be considered for maintenance is higher, averaging 16% over the period but rising in recent years to 18%. The East of England and London stand out as being significantly worse than average and the North West and North East significantly better.

These figures for local roads can be contrasted with those for trunk roads where, in 2014, the percentages of the left hand lane (usually the most heavily trafficked) were 3% for Motorways and 5% for trunk A roads (DfT, 2015g).

Figure 2.4 shows how the proportion of Principal (A) roads requiring their skidding resistance in need of further consideration has changed over the last fifteen years. This data is only available by Principal road and type of area so cannot be correlated with the information in Figures 2.1, 2.2 and 2.3. This data is not based on comprehensive surveys but (large) variably sized samples, so individual years may be subject to slightly different degrees of error. However it appears that conditions may have deteriorated slightly over the period shown and that London and, to a lesser extent, the metropolitan districts have poorer roads, by this indicator, than the rest of the country. These proportions are significantly lower than those for the trunk road network (motorways 5% in 2012 and trunk A roads 12% (DfT, 2015h)).

Figure 2.4: Percent of LHA Principal road length requiring further investigation 1999/01-2011/14

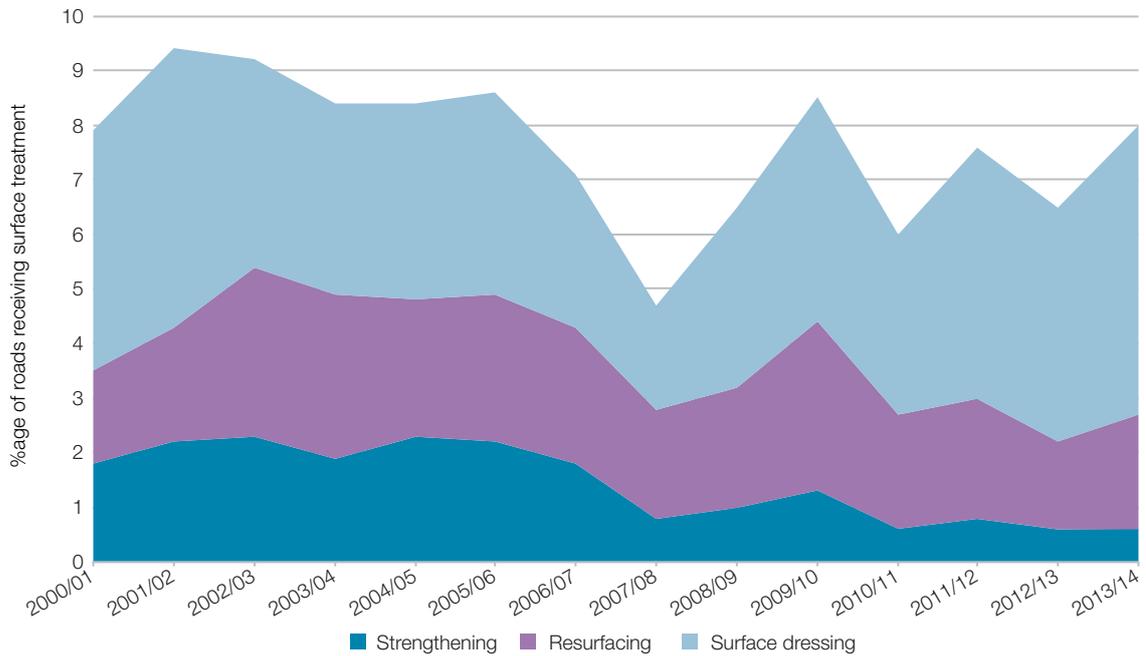


Source: DfT (2004); DfT (2008); and DfT (2015d)

The actual amounts of road surface treatment in recent years are shown in Figures 2.5 and 2.6. The percentage of A roads receiving some form of carriageway treatment has averaged 7.7% since between 2000/1 and 2010/11, down from 8.5% in the 1990s and 10.6% in the late 1980s. The level of strengthening has fallen significantly in recent years with greater reliance on resurfacing and, in particular, surface dressing. The level of treatment of minor roads has been much lower with only 4% receiving any form of treatment between 2000/1 and 2010/11 again down from the earlier levels of 5.8% in the 1990s and 8.5% in the late 1980s. Here the reliance on surface dressing is even greater with about three quarters of all treatments taking this form.

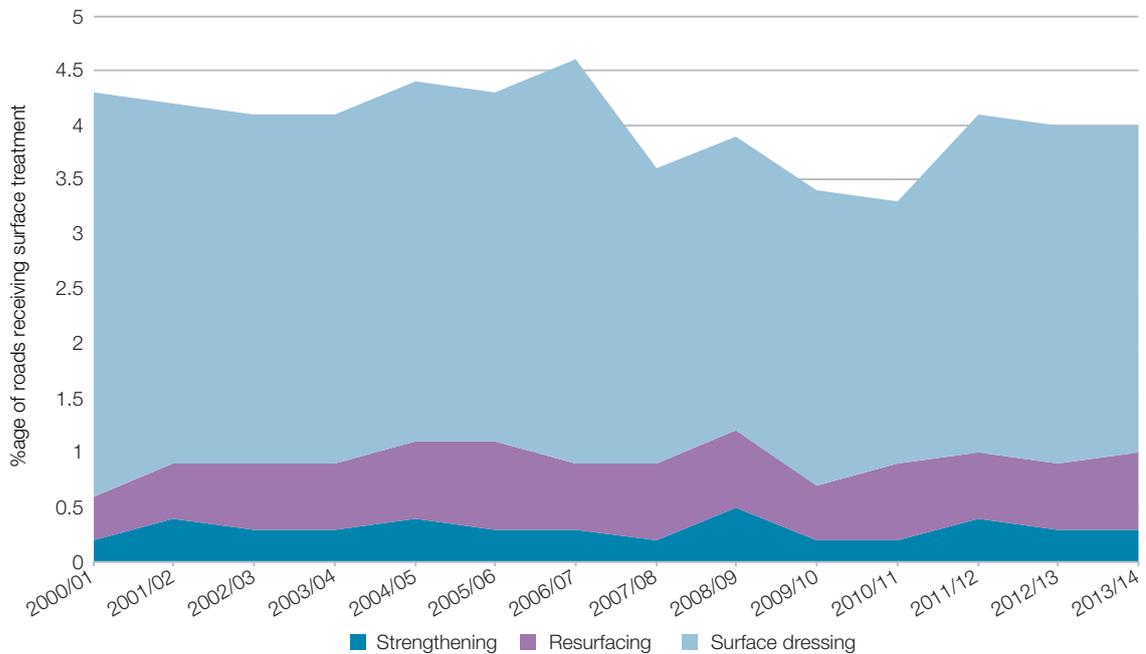
Clearly the less frequently a road's surface is treated the poorer its average condition will be. The long term trend of reducing treatment rates is likely to result in increasing vulnerability to both structural and surface damage, especially on the busier A roads, and poorer surface quality on minor roads.

Figure 2.5: Percentage of LHA A roads receiving surface treatment 2000/01-2013/14



Note: Figures prior to 2006/07 include data for Wales.
Source: DfT (2015i)

Figure 2.6: Percentage of minor roads receiving surface treatment 2000/01-2013/14



Note: Figures prior to 2006/07 include data for Wales.
Source: DfT (2015i)

2.3 The ALARM survey findings

Each year since 1988 the Asphalt Industry Alliance (AIA) has commissioned surveys of highways departments in local highway authorities in England and Wales. The aim of the survey is to build a picture of the general condition of local roads and the levels of maintenance activity as well as the levels of funding required to ensure that they are in reasonable condition. The survey covers:

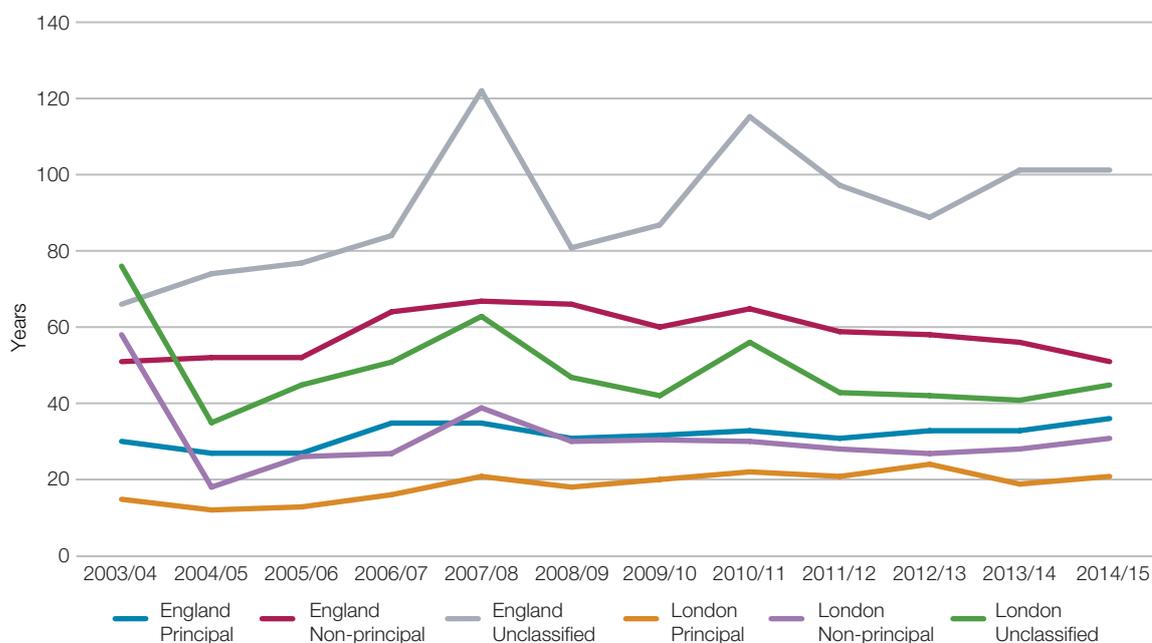
- Road conditions;
- Roads maintenance budgets and
- Road user compensation claims.

The following paragraphs summarise key points from the first and third of these.

The ALARM data is based on LHA returns which can vary from year to year; and as the survey has matured the range of parameters has changed. Any time series picture must therefore be less than complete. The following is a digest of those which were collected consistently over the last decade at least.

The quality of a road surface is dependent on its age as both traffic volumes and environmental degradation take their toll. Figure 2.7 shows how the average age between carriageway resurfacings has changed over the last 11 years for different types of roads in London and the rest of England.

Figure 2.7 Frequency of road resurfacing by type of road 2003/04-2014/15



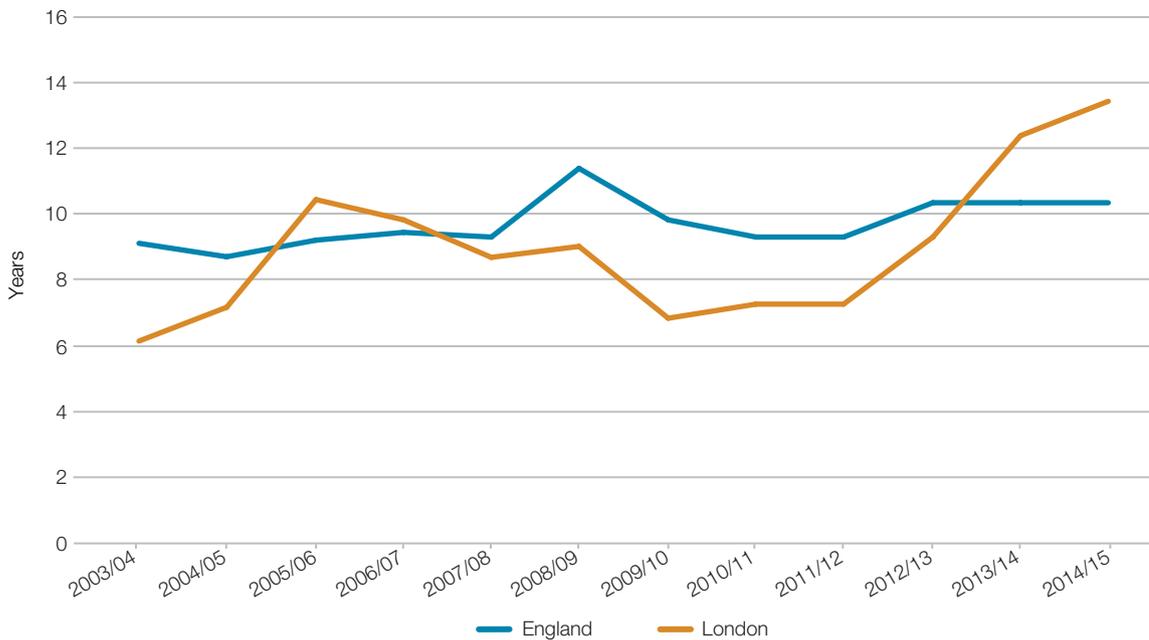
Source: AIA (2015)

Taking into account the lifespan of particular materials, the type of road and the level and nature of its traffic, the AIA recommends that the frequency of road resurfacing should be between 10 and 20 years. Whilst this might be too generous the frequencies shown in Figure 2.7 are well short of this with only Principal roads in London coming close to this standard. The yearly variations reflect the differences between years of actual resurfacing rates.

Not surprisingly the busiest types of road tend to be resurfaced the most frequently, but the very long intervals between resurfacing of the quieter – especially unclassified roads outside London will mean that many of these will have surfaces which have been extensively patched with consequently poor ride qualities and increased vulnerability to the formation of potholes.

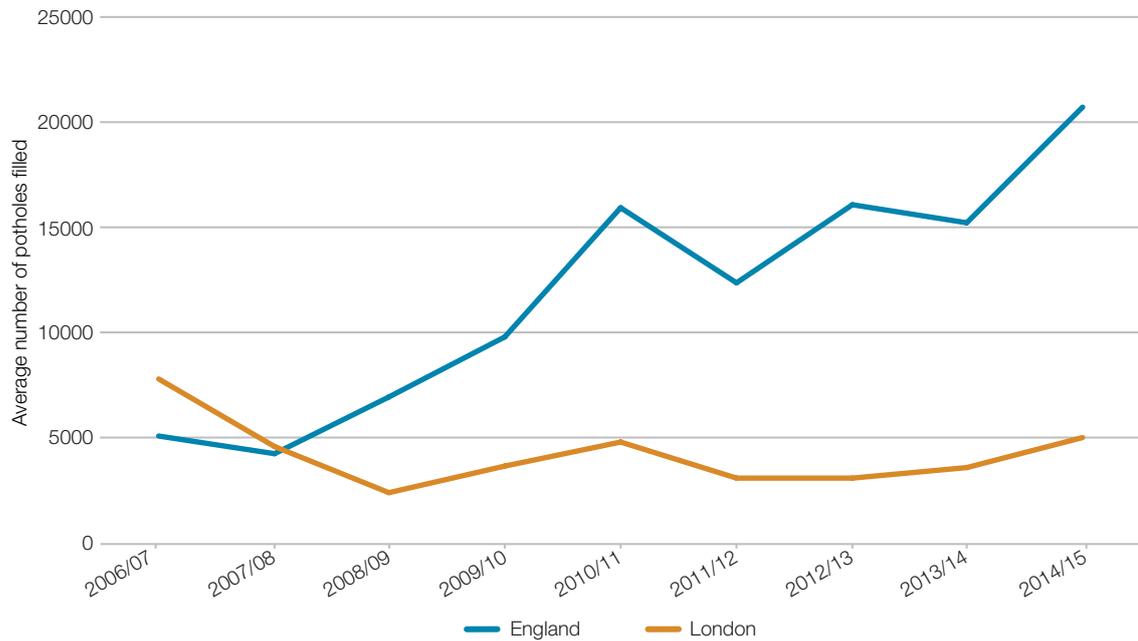
These long intervals mean that there is a backlog of carriageway maintenance which is illustrated in Figure 2.8. This is based on estimates of how long LHAs would take to bring their roads up to a good standard if there was sufficient money available. In England, over the period shown, the estimated backlog has increased from 10.8 years to 12 years and in London the increase has been greater from 7.9 to 15 years with most of this increase taking place in the last three years. The cost of clearing this backlog is estimated by the by the AIA to amount to £11½bn.

Figure 2.8: Estimates of carriageway maintenance backlog 2003/04-2014/15



Source: AIA (2015)

Figure 2.9: Average number of potholes filled per LHA 2006/07-2014/15



Source: AIA (2015)

Carriageway maintenance is however only part of the picture and, for example in its third transport plan (TGM, 2011), Transport for Greater Manchester estimated that of the £600m backlog in 2008/09 £270m was for carriageways and the remaining £330m for footways, pavements, street lighting and highways structures and bridges. More recently the government has stated that there is an estimated backlog of maintenance works on the local road network of up to £8.6 billion (HMT, 2015b). This is less than the AIA figure as it is not based on bringing the entire network up to a uniformly high standard and does not include every type of highway asset.

The less frequently a road surface is replaced or re-carpeted with a new surface dressing the more prone it will be to degradation and the breaking up of patches resulting in ‘potholes’⁴. This problem has been exacerbated during the recent episodes of adverse weather such as in the winters of 2009/10 and 2010/11. Figure 2.9 shows the numbers of pothole filled annually in London and the rest of England from 2006/07 to 2014/15.

These numbers are averages for individual LHAs and the national total will be correspondingly greater. In 2014/15 for example LHAs in England (including London) filled in over 2½ million potholes – roundly 7 thousand a day at a cost of £136m/year. Over the period since 2006/07 the total cost of filling potholes added up to £788m (approaching £1bn in today’s prices).

In addition to the cost of dealing with potholes there are the costs of damage to road vehicles. These are not known for England but one estimate for local roads in Scotland puts the costs of poor maintenance at 0.6p/km for cars up to 3.6p/km for trucks at 2002 prices

⁴ Usually defined as an area of road with the surface material lost to a depth of 40cms (1.6 inches) or more.

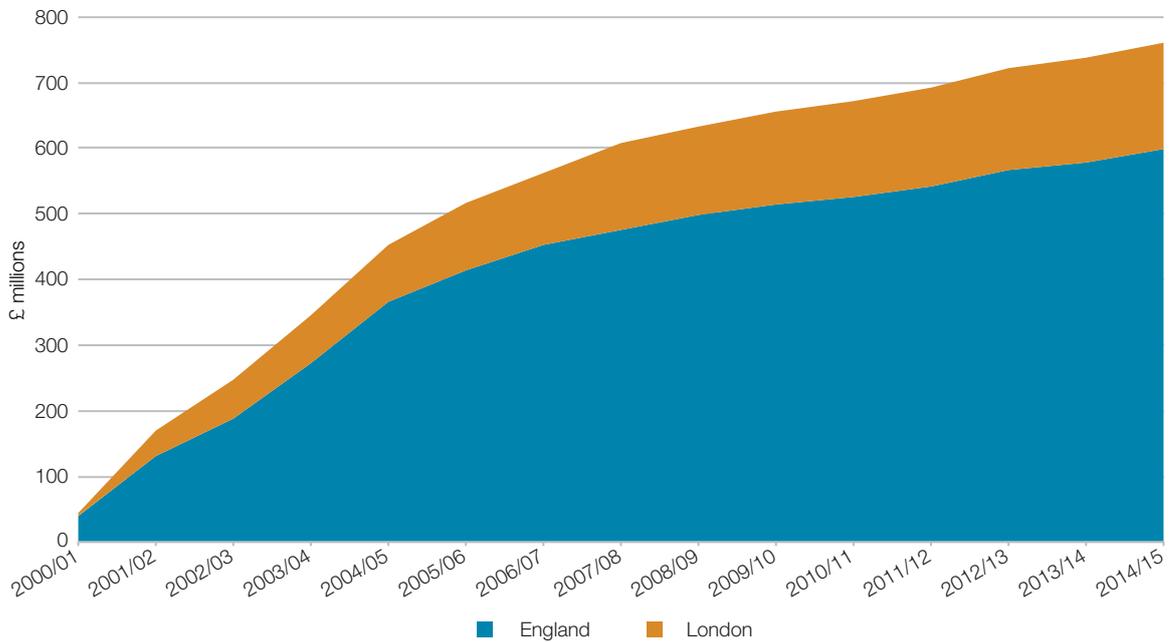
(Parkman et al., 2012). If a figure of 1p/vkm (at today's prices) were used for English LA roads the total would come to £3bn a year and a study for the DfT in 2014 estimated that, in an area of the West Midlands, the reduction in user costs to be over six times the costs of increased maintenance expenditure (CH2M Hill, 2014).

Poor surface conditions can result in damage compensation claims by road users and over the years these add up to a substantial sum. Figure 2.10 shows how these have accumulated since 2000/1 and add up to £760m (about £1bn in today's prices).

Road pavements can also deteriorate when they are dug up by the utility companies to install, repair or remove buried apparatus. These holes and trenches are restored with varying degrees of soundness and, if not properly filled, compacted and sealed can weaken the roadway fabric so leading to its deterioration. Figure 2.11 shows the rate at which the utility companies have dug up parts of the LHA road network since 2006/07.

In London this has averaged 10,700 a year (1 for every 1.87 kms of roads) and in the rest of England 14,600 (1 for every 19.15 kms of road). Clearly the level of activity in London – with its higher traffic densities – must be a source of congestion as well as contributing to the deterioration of carriageway and footway surfaces. Indeed this level of activity raises questions about the standard to which roads should be resurfaced if sections are to be dug up within a year or two. The frequency of road openings is an order of magnitude less outside London however in urban areas this difference will be rather less.

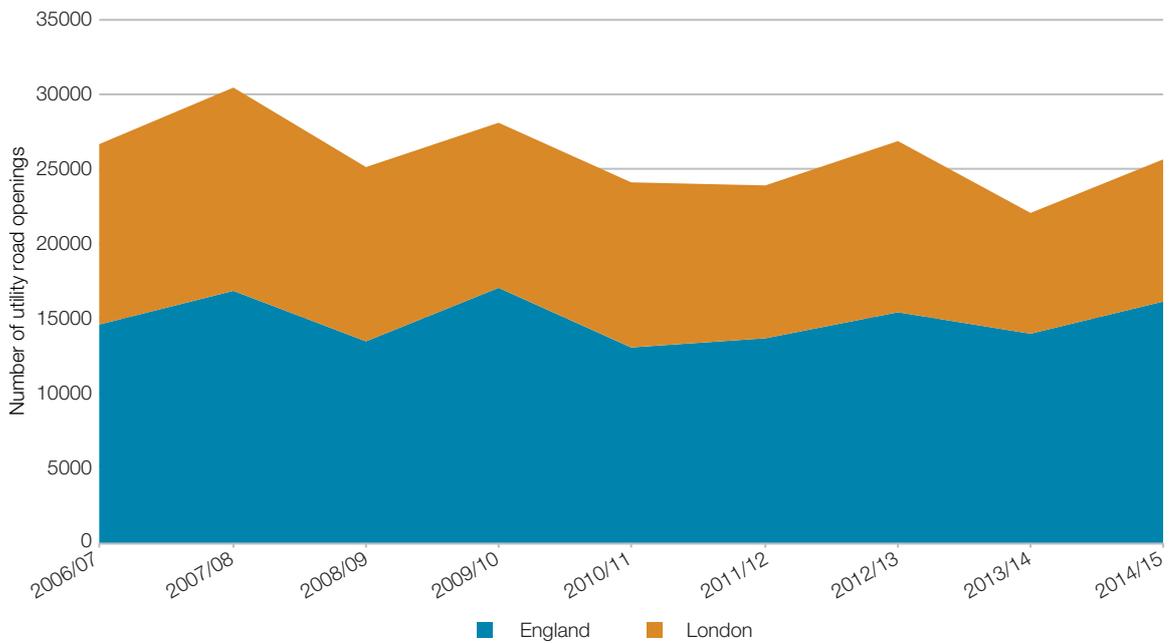
Figure 2.10: Cumulative cost of road user compensation claims for LHA roads 2000/01-2014/15



Note: These are current prices.

Source: AIA (2015)

Figure 2.11: Utility road opening on the LHA network 2006/07-2014/15



Source: AIA (2015)

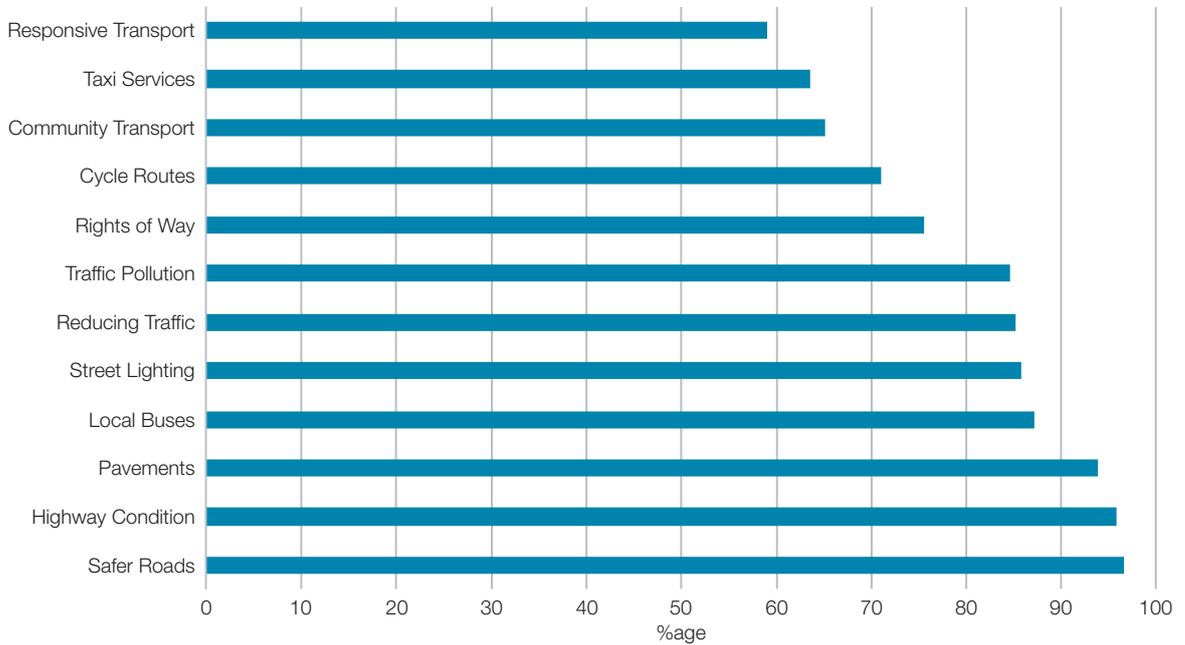
3. Perceptions of Local Road Conditions and their Importance



Whilst objective measures may be a more rigorous way of assessing the condition of the road system public perceptions are also very important. The National Highways and Transport Public Satisfaction Survey (NHTPSS) is an annual survey benchmarking public perspectives on, and satisfaction with, local authority highway & transport services. It is managed by the National Highways and Transport Network which is a national highways industry benchmarking group and includes returns from 109 English LHAs.

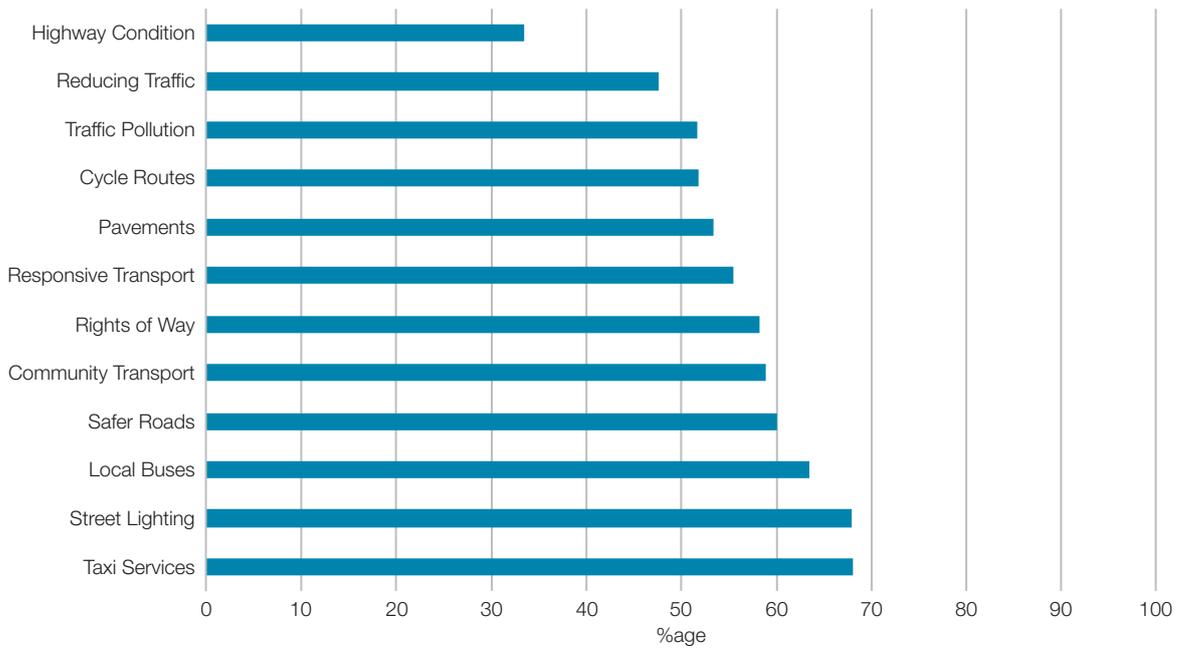
Respondents were asked what mattered to them about their local transport and the results for 2014 are shown in Figure 3.1. Highway conditions and pavements make up two out of the top three most important aspects of local transport and including street lighting three out of the top five. Clearly therefore the condition of local roads and streets is very important to the public. But how satisfied are the public with road conditions?

Figure 3.1: Results of the 2014 NHTPSS question ‘How important do you consider the following?’



Source: NHT (2015)

Figure 3.2: Results of the 2014 NHTPSS question ‘How satisfied or dissatisfied are you with the following?’

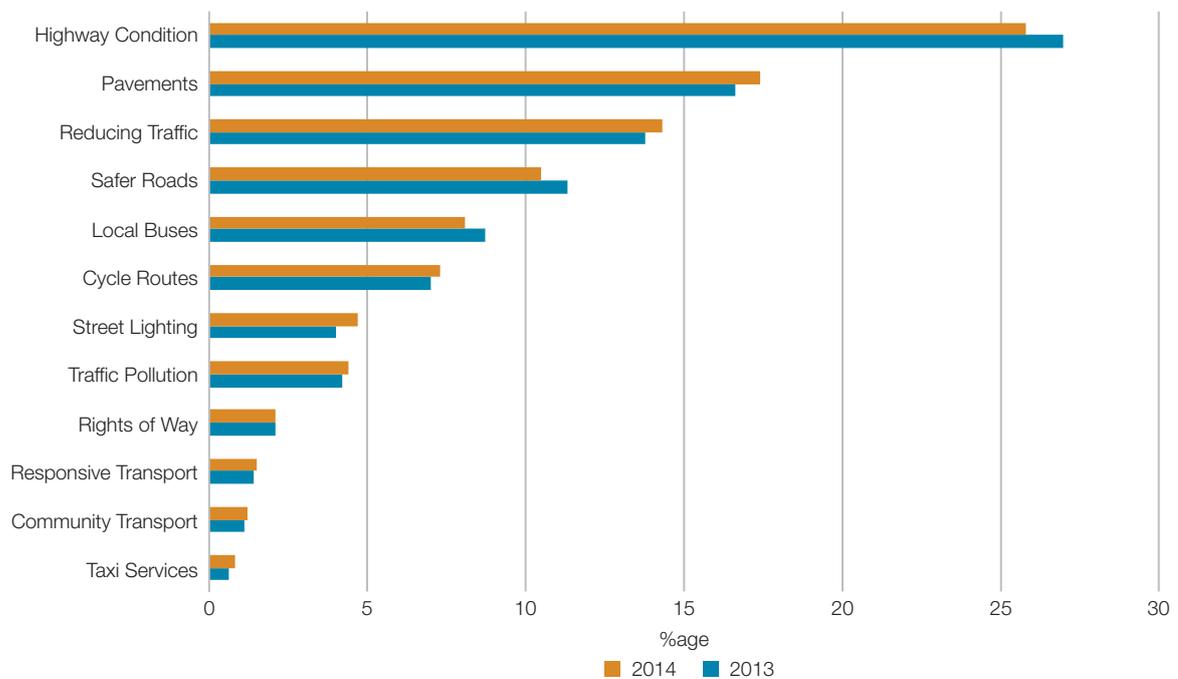


Source: NHT (2015)

Figure 3.2 shows that the condition of local highways least satisfactory by a large margin with pavements (footways) fifth from the bottom. Street lighting on the other hand gets a good relative score. If the difference between the importance of each attribute and the satisfaction score is measured the gap for road conditions is by far the largest (62.5) followed by pavements (40.6) against an average of 24.6. Not surprisingly this is reflected in the public's priorities for improvements.

In Figure 3.3 it can be seen that highway conditions and pavements stand out as the two features of the local transport environment that are judged to be in the greatest need for improvement. Street lighting, whilst being one of the more important aspects of the local transport environment is generally regarded quite well and not judged to require much improvement.

Figure 3.3: Results of the 2014 NHTPSS question 'What is most in need of improvement in your area?'



Source: NHT (2015)

Other views on roads maintenance are canvassed from time to time by organisations representing interests which inter alia depend on transport and roads. A Populus poll for the Local Government Association in 2014 (LGA, 2014) found that:

- 83 per cent of people surveyed back LGA plans for existing fuel duty to be reinvested in roads maintenance.
- Regionally, this rises to 90 per cent in Eastern England, 88 per cent in Wales and 85 per cent in Yorkshire and Humberside.
- One in five respondents said they would be more likely to vote for a party which committed extra money to fixing the roads in next year's General Election.

A YouGov survey for the Asphalt Industry Alliance (AIA, 2013) in 2012 found:

- Badly maintained local roads are costing small and medium-sized enterprises (SMEs) £5 billion a year in wasted staff time, production delays, increased fuel consumption and vehicle damage repairs.
- Sixty per cent of survey respondents said the condition of local roads had deteriorated over the last five years, and over half said the condition had worsened over the past year.
- Almost a third (32 per cent) of survey respondents incurred additional costs due to lengthier journey times and used more fuel due to congestion attributable to poor road condition. In addition, more than a quarter (27 per cent) experienced additional damage to their vehicles due to poorly maintained local roads.
- Just one in 25 (4 per cent) respondents thought the local roads used by their business were very well maintained, while nearly 10 times as many (37 per cent) said their local roads were not very well maintained.

In its annual survey for 2014 (CBI, 2014) the Confederation of British Industry found:

- UK business sees the road network continuing to deteriorate. More than half of UK companies (52%) report a worsening of motorways in the last five years, and 65% see the same in local roads.
- The future is seen as equally bleak, with 77% and 86% of respondents expecting motorways and local roads to get worse or stay the same over the coming five years.

4. Expenditure and Funding



4.1 Types of highway maintenance

Highway maintenance funding can be classified as ‘capital’ or ‘revenue’ – this is significant because the funding comes from different sources and applies to different types of works:

- **Capital maintenance** is primarily the structural renewal of highway assets (including roads, footways, bridges, drainage and lighting); essentially extending the life of the asset. preventative treatments such as surface dressing are also treated as capital.
- **Revenue maintenance** expenditure mainly covers the routine works required to keep the highway serviceable and reactive measures to rectify defects. In addition to maintenance of the road surface itself, it also includes the cost of providing street lighting, footway repair and cyclical maintenance such as cleaning activities (of assets such as the drainage system), grass cutting and vital services such as snow and ice clearance, and salt spreading (DfT, 2014b: para 1.9).

The distinction between routine maintenance and structural improvement is not always easily defined but two examples help illustrate where the division lies. Replacement of a street lighting column would be structural (*capital*) maintenance but changing a burnt out bulb for a new one would be treated as routine (*revenue*). Filling in a pothole to keep the road operating safely (a short term fix) is routine (*revenue*) maintenance, whilst cutting out a damaged part of the carriageway and replacing with a ‘permanent’ material and sealing

the patch securely to the abutting structure is classed as structural (*capital*) improvement. Guidance on allocation of highways maintenance expenditure between ‘capital’ and ‘revenue’ is provided by the Chartered Institute of Public Finance and Accountability (CIPFA, 2014).

The Department for Transport provides capital funding to local authorities for highways maintenance – this is known as ‘the highways maintenance block’, which sits alongside a separate allocation for other transport works called the ‘integrated transport block’. Revenue funding is provided by the Department for Communities and Local Government (DCLG) through Revenue Support Grant (DfT, 2014b: para 1.11).

In addition to these programmed expenditures, from time to time the DfT makes grants to help local authorities in respect of particular problems which standard grants are insufficient to deal with. The most recent examples of this has been the Pothole Fund in 2014 (DfT, 2014c). Although central government funding is highly significant, local authorities typically spend substantially more capital money on highways maintenance than the sum provided to them through the DfT block grant, as explained below.

4.2 Responsibility for highways maintenance

Local highway authorities (LHAs) are responsible for all public non-trunk roads – including their maintenance – in their respective areas. These numbers and types of these are listed in Table 4.1.

Table 4.1: English Local Highway Authorities 2015

Type of Authority	Number	Example
Greater London	1	TfL
Shire Counties	27	Hampshire
London Boroughs	33	Croydon
Unitary Authorities	56	Blackpool
Metropolitan Districts	36	Stockport
Total	153	-

Source: DCLG (2014a: Annex D)

In some instances these authorities work together on transport issues, such as through integrated transport authorities (ITAs) and Combined Authorities, and use pooled funds on projects including highway maintenance (Sandford, 2015). However this does not interfere with their duties as highway authorities for their areas. As with other services, the funds available for highways maintenance are limited by the authorities’ local revenue raising capacity and the availability of central government grants.

4.3 Funding of capital highways maintenance

Table 4.2: Financing of English Local Government Capital expenditure 2010/11-2014/15

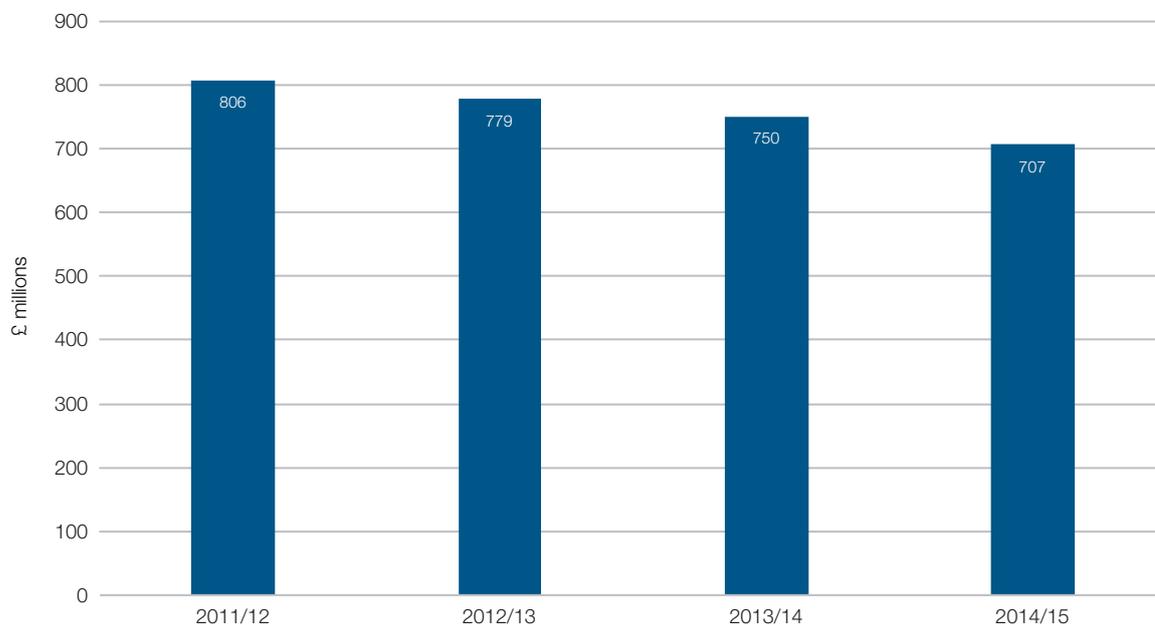
SOURCE OF FUNDING (£millions)	2010/11	2011/12	2012/13	2013/14	2014/15
Central government grants	8,063	7,170	8,481	7,483	8,520
EU structural fund grants	38	77	55	57	132
Private developers & leaseholders	634	747	693	750	727
Non departmental public bodies	753	522	442	443	564
National lottery	104	121	67	49	53
Capital receipts	1,409	1,647	1,294	1,516	1,879
Revenue financing–housing	235	324	466	578	686
Revenue financing – major repairs	1,069	1,160	1,250	1,491	1,526
Revenue financing–general	2,680	3,020	1,441(a)	2,851	3,029
Borrowing – single pot	1,581	338	88	70	0
Borrowing – separate programme	484	74	30	8	0
Borrowing–other	6,335	18,406 (b)	4,724	4,376	4,422
Total	23,385	33,606 (b)	19,042	19,671	21,539

Note: These are current prices. (a) This reflects reallocation of expenditure by TfL as part of year end process of reconciling funding to its subsidiaries. (b) It is estimated that approximately £13 billion is associated with the financing of the HRA self-financing determination payment.

Capital funding by the DfT for highways maintenance is not generally ‘ring fenced’ so this means that in theory it could be spent on other local services. However spending on structural maintenance invariably exceeds the amount of DfT grant (see Figures 4.1 and 4.3) and, although the picture is not uniform for every highway authority, in aggregate it is reasonably certain that most, if not all this grant is devoted to the purposes for which it is intended and LHAs generally supplement this with funds raised from local sources. The sources of local authority capital expenditure comprise a range of grants, capital receipts, some income from revenue and from borrowing. The balance between these in recent years is shown in Table 4.2. This shows that central government grants are the main source of capital funds followed by borrowing and capital receipts. Together these typically make up between two thirds and three quarters of total capital spending.

4.4 Highways Maintenance Block Grant

Figure 4.1: English Local Highways Maintenance Block Grant 2011/12-2014/15



Note: These are cash prices.

Source: DfT (2014d)

The principal government grant for capital maintenance is the Highways Maintenance Block Grant and the recent allocations of this are shown in Figure 4.1. This had been falling and between 2011/12 and 2014/15 reduced by 12% cash and about 18% if inflation is taken into account. The shrinkage and uncertainty of the maintenance of block grant has been problematic for LHAs and to help ease these the DfT has changed its policy and a reformed regime has been introduced for the period 2015/16 to 2020/21.

The new regime promises an even – and significantly higher – level of overall grant⁵. There is also a difference in the basis for establishing each local highway authority's amount of grant. The basic block grant allocation is based on four factors (DfT, 2014e: Annex B):

Length of roads	75%
Number of bridges over 1.5ms span ⁶	14%
Number of street lighting columns	2%
Extent of cycleways and footways ⁷	9%.

⁵ This excludes Greater London which receives a block transport grant for TfL and the London Boroughs.

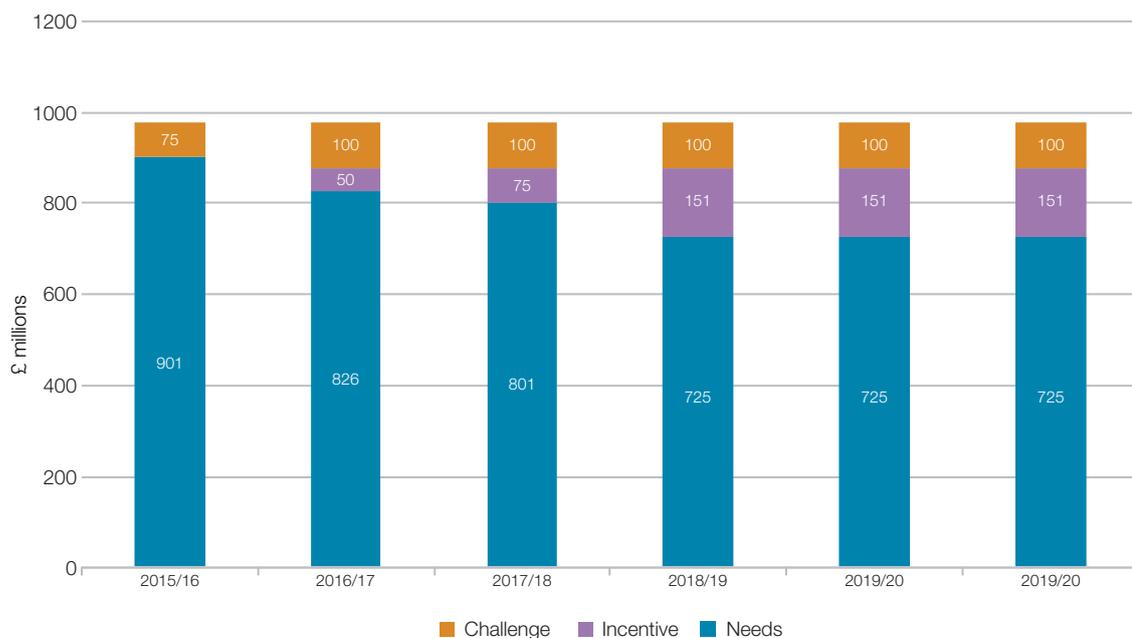
⁶ To be reviewed in 2017/18.

⁷ From 2018/19 when adequate data is available.

This formula is used to calculate the 'needs' element of the grant (blue in Figure 4.2). Interestingly, Government did not accept the argument that there should also be a 'traffic weighting' element in the formula (as had previously been the case) on the basis that traffic is just one of a number of factors that influence the rate of deterioration and that including this within the formula would over complicate the elements and could also divert funding away from the proportion of the elements of the highway asset that are in need of more repair (DfT, 2014e).

In addition, from 2016/17, there will be an 'incentive' element growing from 5.1% of the total to 15.5% in the last of the six years (the purple component shown in Figure 4.2). This is to be allocated from the results of a self-assessment questionnaire the responses used to determine how far each individual authority is adopting efficiency principles in the planning and execution of its roads maintenance programme. The 'needs' and 'incentive' components of the maintenance block grant are not ring fenced.

Figure 4.2: English Local Highways Maintenance Block Grant 2015/16-2020/21



Note: These are nominal prices.
Source: DfT (2014e)

Finally there is the Challenge Fund component which is available to local highway authorities in England to bid for major maintenance projects that are difficult to fund through the normal block allocations they receive. £575 million has been set aside for a Local Highways Maintenance Challenge Fund from 2015/16 to 2020/21. So far 31 major schemes have been approved for Challenge Funding. These projects will have regular monitoring, and local authorities commit to spend the money specifically on these. Of the total £376m committed so far £271m is funded by DfT grants and the balance of £105m funded from local resources (DfT, 2014f).

Unlike in previous versions of the allocation formula this version does not include a measure of asset condition but the challenge fund provides a facility for dealing with badly deteriorated assets.

The fact that these grants form a significant part of the capital expenditure by local authorities on roads maintenance and have been set at a higher and more consistent overall level of funding (subject to any changes made in the forthcoming Spending Review) augurs well for this element of roads maintenance. However the growing variable elements mean that by the end of the planning period there is some uncertainty about how any individual local authority might fare. Also the new regime for trunk roads is likely to increase their maintenance activity and put pressure on skilled resources and maintenance costs – at least in the short term.

4.5 Weather damage and pothole grants

In March 2014 a weather damage grant of £140m was provided to LHAs to help repair the damage caused by the recent prolonged period of severe weather; and in June 2014 a pothole fund was created to provide of £168m (DfT, 2014g) in 2014/15 out of a fund totalling £200m (DfT, 2014h). These are ‘one off’ grants and cannot be relied upon for future funding. Again, in theory these have not been ring-fenced funds, though in practice DfT seeks undertakings governing their use and watches keenly to see that the funds are spent and work delivered as expected.

4.6 Integrated Transport Block Grant

The Integrated Transport Block Grant is not designed primarily to support highways maintenance but, to some extent, is being used for this purpose. This grant comprises allocations totalling £258m/year to the 89 Local Transport Authorities⁸ for each of the years 2015/16, 2016/17 and 2017/18 (DfT, 2014i). It is for transport capital improvement schemes costing less than £5m. The total is allocated to local authorities using a formula which based on ‘needs’ and ‘improvements’ (DfT, 2014j). The needs elements is calculated using six parameters:

Public transport	25.0%
Accessibility	17.5%
Tackling pollution	5.0%
Road safety	14.0%
Congestion	20.0%
Carbon	8.0%

⁸ The GLA, Shire Counties, Unitary Authorities and the Integrated Transport Authorities.

And the improvement element using these three parameters:

Road safety	3.5%
Congestion	5.0%
Carbon	2.0%

Thus the condition of local roads not a direct factor in the allocation procedure although it can be argued that these may affect road safety and perhaps some other outcomes.

4.7 Local Growth Fund

In 2011 a number of Local Enterprise Partnerships (LEPs) were set up and now number 39 (Cabinet Office, 2015) with more areas currently being invited to apply to establish an LEP (DCLG, 2015c). LEPs are voluntary business-led organisations, and are not constituted to a standard template. Nor do the LEPs have a discrete corporate status hence the grants allocated through the Local Growth Fund are paid to a lead local authority which acts as a 'banker'.

These presently comprise about four hundred local authorities, most of which are not LHAs, and the LEPs receive grants from the Local Growth Fund (BIS, 2012). This covers a wide range of issues relevant to local growth including housing, economic development, transport, skills & training and telecommunications infrastructure. In 2015/16 these amounts to roundly £2bn and the allocations were subsequently increased so that the total commitment has reached £7bn out of a prospective total of £12bn (Cabinet Office, 2015: Notes to Editors). This is not new money but has been taken from existing Departmental Budgets (including those of the DfT and DCLG).

Of the 39 LEP proposals (Cabinet Office, 2014) only 6 contain highways maintenance schemes which is surprising as deteriorating condition of local roads is seen as a major concern to British industry in the CBI's annual surveys (CBI, 2014). Of these, three set out specific proposals amounting to a total expenditure of £114m. So it appears that the present prospects are for a total of between £100m and £200m on local roads maintenance out of the £7bn although as possible problems with some of the more ambitious projects emerge more could be spent on roads maintenance. That said, the allocation of growth funding is not tightly ring-fenced to the specific schemes in each Strategic Economic Plan – LEPs have discretion to manage and reprioritise expenditure, recognising the practicalities inherent in delivering large, multi-faceted, multi-year programmes. It remains to be seen whether business concerns about the condition of local roads translate into more local growth money finding its way toward highway maintenance.

Following the LEP initiative a number of Local Transport Bodies (LTBs) have been established – operating from 2015 onwards. These will be voluntary partnerships between Local Authorities, Local Enterprise Partnerships and maybe other organisations. Their primary role is to decide which transport investments should be prioritised, to review and approve individual business cases for those investments, and to ensure effective delivery of the programme and there are 38 of them at present – consistent with the LEPs. Funding

amounts to £1.16bn for periods ranging from 2015/16 to 2018/19 inclusive for most LTBs, but up until 2024/25 in four instances (DfT, 2013b). The way this money is spent will depend on the developing priorities of the LTBs but an analysis of their early plans by the Campaign for Better Transport and the Campaign to Protect Rural England (CBT & CPRE, 2013) identified only £7m proposed for roads maintenance so it seems unlikely that this will provide a major source of funds for local highways maintenance.

These recently introduced types of grant such as the local growth fund and flood defence grant in aid, require a local contribution (generally in the region of 20%) as well as up front revenue costs to develop business cases to secure funding. Both of these are often revenue pressures, as the capital usually comes from borrowing. As revenue becomes tighter, LHAs ability to secure this funding and deliver the much needed capital investment will be put at risk.

4.8 Local highway Private Finance Initiatives

The Private Finance Initiative (PFI) enables local authorities to enter into a contract with the private sector for the provision of services involving new or improved capital assets. PFI grants are provide to local authorities with for revenue support for their PFI projects. There are 33 street lighting PFIs and 7 highway maintenance PFIs in operation at present for which grants of £250m are being provided in the current financial year. These authorities receive PFI grant from the DfT for both highway maintenance and their street lighting but do not receive Highways Maintenance Block Grant⁹. While some of the works carried out as PFIs are structural, because the contract with the private sector company is for a service, all expenditure is treated as revenue.

Table 4.3: Highway Maintenance Capital Grant Summary

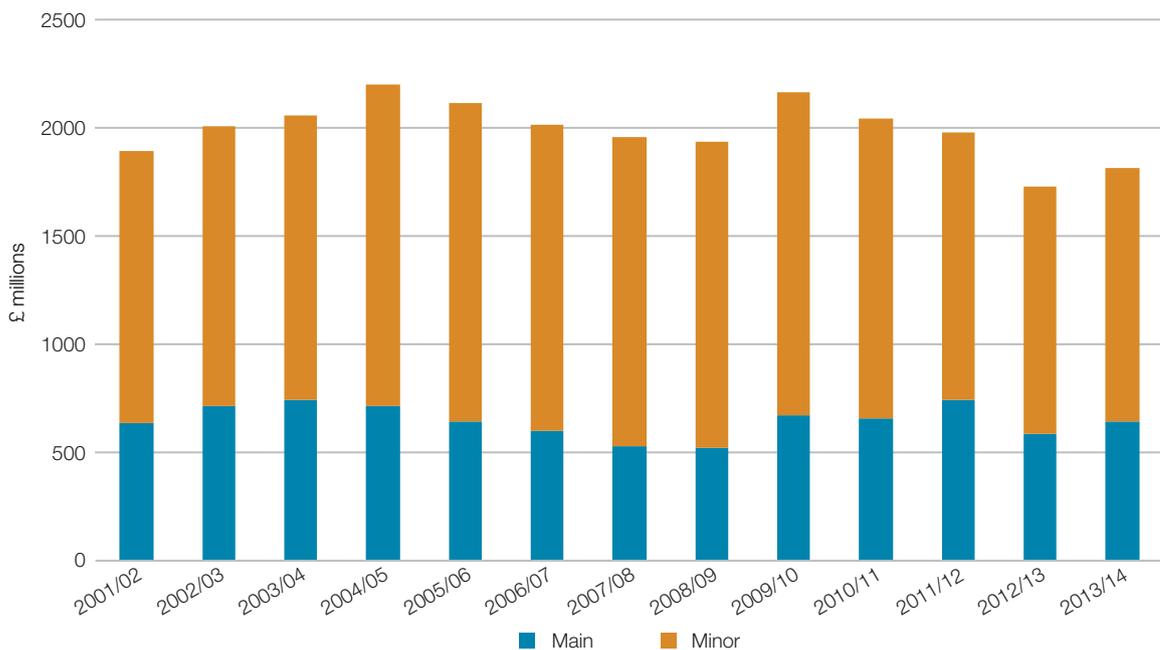
Type of Grant	Value	Term	Comment
Highways Maintenance Block	£976m/year	2015/16-2010/21	Payed to LHAs: used almost entirely for highways maintenance
Integrated Transport Block	£258m/year	2015/6-2017/8	Payed to LTAs: unlikely much will be used for maintenance.
Weather Damage Ad hoc	£140m	Already used	Payed to LHAs: used for road damage repair.
Pothole Ad hoc	£200m	2014/15-2015/16	Payed to LHAs: used for pothole repairs.
Local Growth Funds General	£12bn in total	Open ended: £7bn committed to date	Payed to LEPs/LTBs: perhaps £100m-£200m for maintenance.
LTB Funds	£1.16bn	Up to 2018/19+	Payed through LTBs: only £7m identified for maintenance.

⁹ Portsmouth is an exception.

4.9 Expenditure on local highways Capital Maintenance

Recent trends in structural maintenance expenditure are shown in Figure 4.3. These sums are at 2013/14 prices and show that spending levels over the last two years have been lower than over the previous decade. The levels of spending are much higher than the capital grants provided by the DfT with the balance, made up from the other sources listed in Table 4.3.

Figure 4.3: English LA Highways Structural Maintenance Expenditure 2001/02-2013/14



Note: (a) Prices at 2013/2014 levels. (b) In 2009/10 accounting conventions were changed so comparisons should not be made across this year. (c) Includes planning and policy expenditure pro-rated to treatment spend.
Source: DfT (2015)

4.10 Funding of routine highways maintenance

Revenue expenditure by local authorities is financed by a combination of grants from central government, local taxes (domestic and non-domestic rates) and other income such as from trading activities. Table 4.4 shows how local authority revenue expenditure changed between 2006/07 and 2014/15.

Some grants to local government agencies, such as for education, policing and concessionary fares, are earmarked, but this is not the case for a range of other services including highway maintenance. This general revenue grant is calculated by a formula designed to reflect local needs, but the needs element attributable to each service does not have to be spent entirely on that service (DCLG, 2015d). This gives local authorities scope to give greater weight to those services which they consider the more important. Overall spending was increasing up to 2010/11 but, as part of the Government's austerity

programme has reduced since – by 14% in real terms between 2010/11 and the budgeted figure for 2014/15.

Table 4.4: Financing of English local government revenue expenditure since 2006/07

	Government Grants	Redistributed Non-dom rates	Non-dom rate retention	Council Tax	Expenditure Outturn
2006/07	49,093	17,506	0	22,453	88,172
2007/08	51,656	17,506	0	23,609	92,384
2008/09	53,088	18,506	0	24,759	98,107
2009/10	57,755	19,515	0	25,633	103,276
2010/11	57,657	21,517	0	26,252	104,256
2011/12	56,237	19,017	0	26,451	99,278
2012/13	46,765	23,129	0	26,715	94,148
2013/14	64,578	0	10,719	23,371	96,419
2014/15	61,230	0	11,324	23,964	95,763

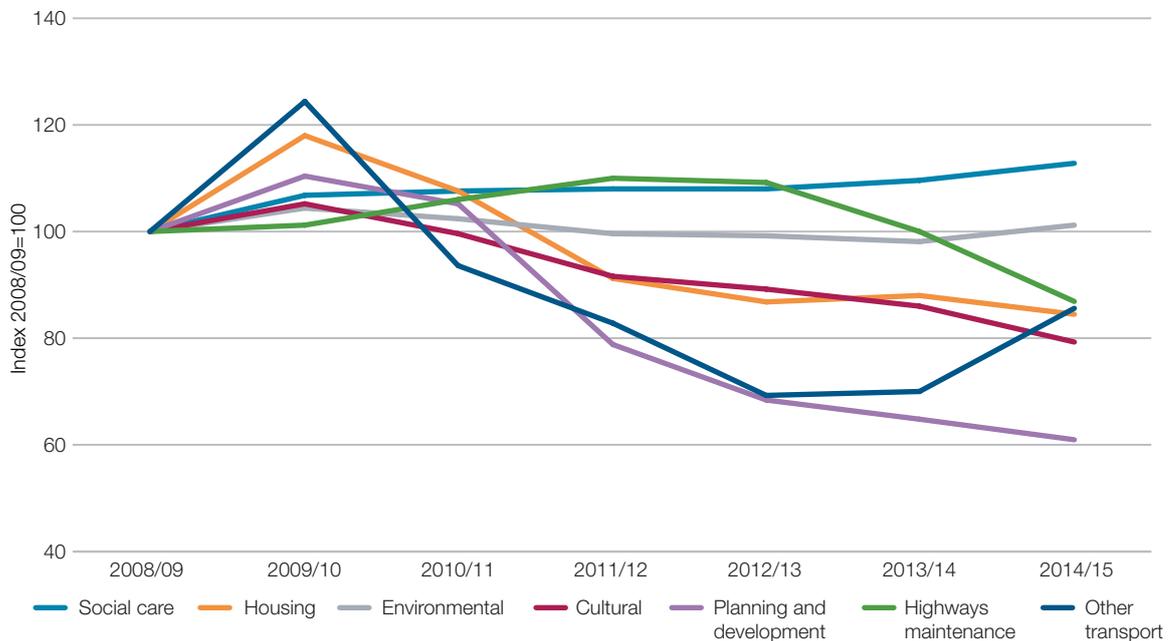
Note: These are outturn prices.

Source: DCLG (2011a); and DCLG (2014a; 2014b)

The growing burden on local authority social services, which is the largest benefactor of this grant, is putting pressure on highways maintenance as, unlike personal services, it can be deferred without immediate widespread impacts. Figure 4.4 shows how the shares of spending on these have varied in recent years. Highways maintenance's share of spending for these services grew up until 2011/12 but then has declined and is budgeted to be only 87% of its 2008/09 share in 2014/15.

Table 4.4 also shows how dependent local authorities are on government grants with close on three quarters of all income coming from the centre in 2012/13 – the last year before the change whereby local authorities were able to retain a proportion of the proceeds of the business rates in their area. In practice this is still not really a local income as the base proportion is set by central government with 'business rich' authorities having to pass on a proportion of their non-domestic rate income to the centre and 'business poor' authorities receiving a top from the centre. Where authorities are able to increase their non-domestic rate income they are able to retain the additional receipts. Even with this arrangement in the 2014/15 year budget local authorities still relied on 62% of their income coming from central government grants.

Figure 4.4: Local Authority Revenue Spending Share for Selected Services 2008/09-2014/15



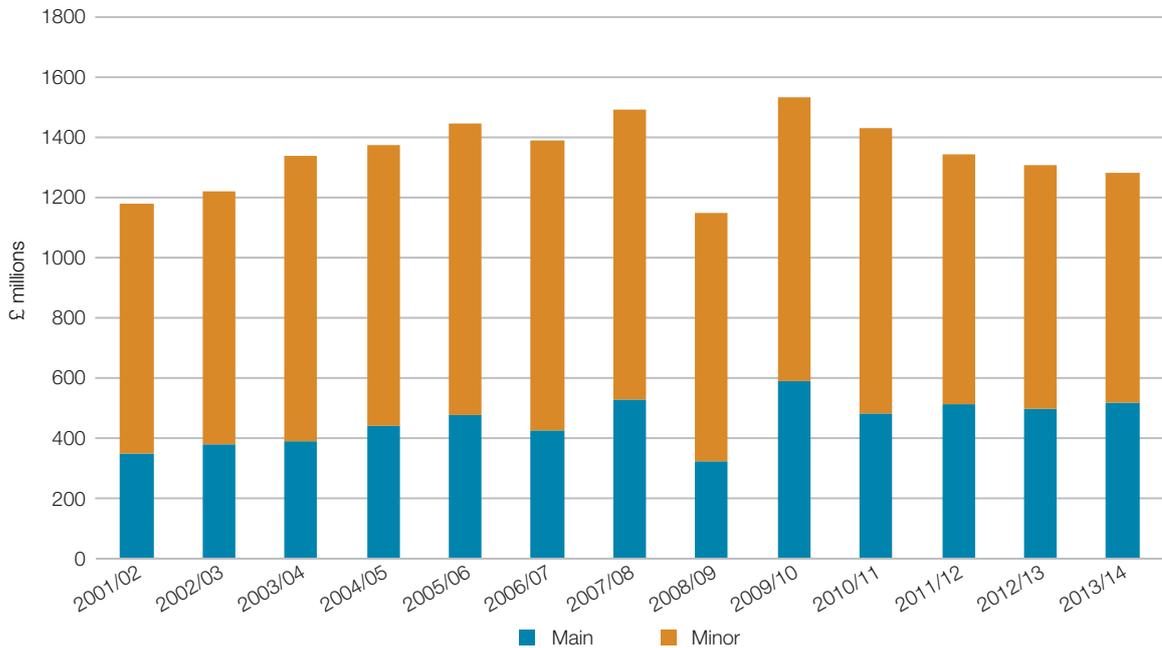
Notes: (a) The housing spend excludes the main housing revenue account. (b) The 2014/15 numbers are budgeted prices, whereas the remainder are outrun prices. (c) Other transport includes concessionary fares grant. Source: DCLG (2009); DCLG (2011a; 2011b); DCLG (2012b); DCLG (2013); and DCLG (2014a; 2014b)

4.11 Expenditure on routine highways maintenance

Figure 4.5 shows a recent decline in routine maintenance expenditure. From £1.68bn in 2009/10 expenditure has fallen by over 16% in just 3 years to £1.41bn in 2013/14 with spending on minor roads maintenance falling by 20% over this period.

Overall revenue expenditure by English local authorities is set to fall by 3.3% between 2014/15 and 2015/16 from £98.8bn to £95.4bn (DCLG, 2015e). On top of the recent reductions in highways maintenance's share this does not auger well for routine maintenance budgets in the immediate future.

Figure 4.5: English LA Highways Routine Maintenance Expenditure 2001/02-2013/14

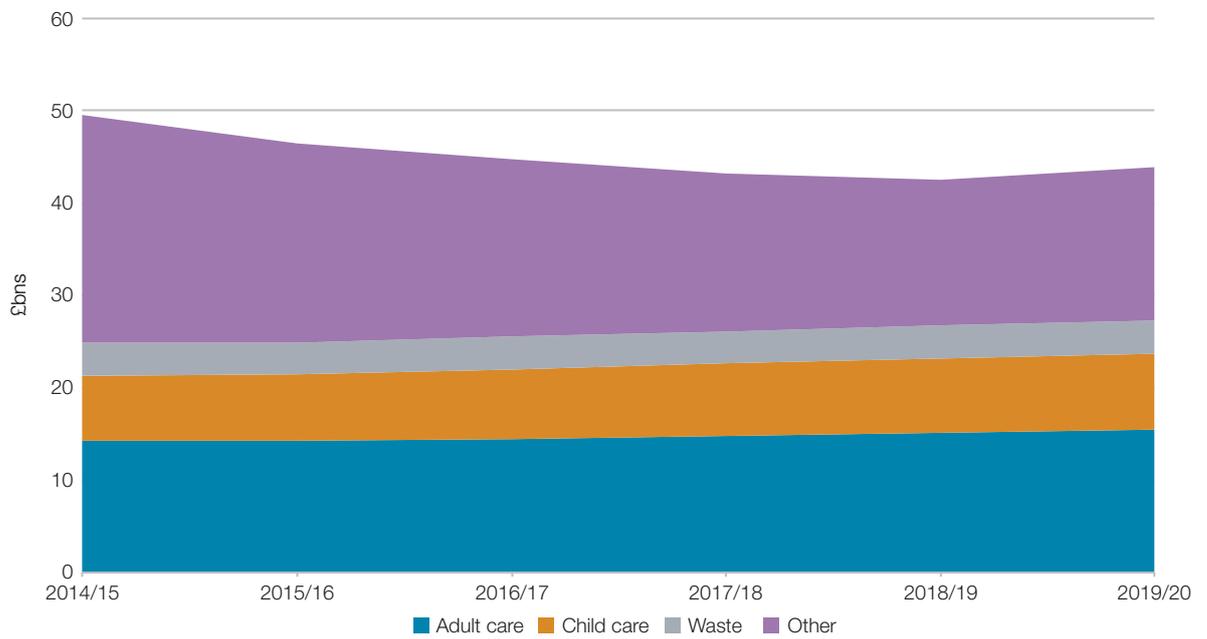


Note: (a) Prices at 2013/2014 levels. (b) In 2009/10 accounting conventions were changed so comparisons should not be made across this year. (c) Includes planning and policy expenditure pro-rated to treatment spend. Source: DfT (2015j)

Unlike the block funding for structural maintenance there is considerable uncertainty about how revenue maintenance budgets will fare in the medium term. However some work has been carried out by the Local Government Association which sheds some light on this issue (LGA, 2015). This is based on its interpretation of the Office for Budget Responsibility’s economic and fiscal outlook to 2019/20 (OBR, 2015) and foresees funding for local council services other than social care and waste (and education) reducing by 35% by the end of the decade; assuming increases in efficiencies of between 1% and 2% annually (see purple area in Figure 4.6). However this assessment was made before the recent budget and further light will be shed on these prospects in the next spending review expected in the autumn. In particular the proposed increase in the minimum wage is likely to increase local authorities’ care costs as a significant proportion of carers are low paid workers.

This assessment estimates spending to grow from £50bn in 2014/15 to £54bn in 2019/20 with funding falling from £50bn to £45bn – a gap of £9bn. If revenue expenditure on highways maintenance experienced a 35% reduction over the rest of the decade the £400m+/year this would entail by 2019/20 would far outweigh the £270m increase in the capital block grant between 2014/15 and 2019/20.

**Figure 4.6: LGA Forecast of LA Revenue Expenditure by Broad Service Group
2014/15-2019/20**



Source: LGA (2015)

5. Conclusions



National statistics collect only limited amounts of information on the condition of local authority maintained roads – the percentages of carriageways where maintenance should be considered, the percentages of principal (but not minor) roads where further investigation of skidding characteristics should be investigated and the percentage of carriageways receiving some form of treatment each year. There is a strong case for more comprehensive central monitoring local road asset conditions

Around 5% of local authority A roads require consideration for maintenance, except in London where the figure has recently increased to 12%. The figure for B & C roads is around 9% with London again having an above average figure (11%). For unclassified roads this rises to 18% with the east of England (and to a lesser extent London) showing up worse than average. These figures compare with 5% for Motorways and 12% for trunk A roads.

23% of local roads require further investigation of their skidding characteristics with London again (and to a lesser extent the roads in Metropolitan areas) standing out as scoring badly by this measure.

The frequency with which road surfaces are treated has been falling for many years and the reliance on surface dressing of A roads rather than resurfacing and strengthening grown – which is likely to result in increasing vulnerability to both structural and surface damage especially on the busier A roads and poorer surface quality on minor roads.

The Asphalt Industry Alliance conducts surveys annually of local highway authorities which include a range of questions on the condition of their roads. From these the AIA estimates that there is a substantial maintenance backlog and, if there were no funding constraints, it would take 12 years to clear this in England (outside London) and 15 years in London. There is more than one

estimate of how much it would cost to clear this but all agree this would run into several billion pounds.

As it is roads are being resurfaced once every twenty years at best (A roads in London) and once in every hundred years at worst (unclassified roads outside London). This period has grown by roundly 20% over the last ten years and compares with an ideal interval of every ten to twenty years.

As well as traffic and environmental degradation road and footway surfaces can be damaged by being dug up to repair and install utilities such as gas pipes and drains. This happens about ten thousand times a year in London and about fifteen thousand times a year in the rest of England. With resurfacing of carriageways taking place on average about once every sixty years this means that many roads will have frequent patches from utility company openings which can make for a poor ride and greater likelihood of potholes forming.

Less frequent maintenance and road openings means more potholes—and the number of these dealt with has grown from 0.9bn in 2006/7 to 2.5bn in 2014/15 at a total cost over that period of roundly £1bn at today's prices.

More potholes result in more damage to road users – both 'on wheel' and 'on foot' and part of this is reflected in compensation claims. Over the last ten years these have averaged £30m/year, with a cumulative total since 2000/1 of around £1bn at today's prices. Not all damage is reflected in these claims and the loss to road users from damage to vehicle suspensions, wheels and tyres will have been significantly greater than this and could run into the hundreds of millions a year or more.

Road conditions matter to the public. In the National highways and transport public satisfaction survey the condition of roads and pavements¹⁰ are regarded as the second and third most important aspect of the local transport environment. The condition of local roads being by far the least satisfactory of twelve aspects of local transport considered and the condition of pavements the fifth least satisfactory. When it comes to the need for improvements to local transport, road conditions head the field by a clear margin with pavements coming second.

Other surveys of business and public attitudes clearly indicate that there are clear concerns about both the existing conditions of local roads and future prospects for these.

The financing of local authority highways maintenance expenditure is a complex process for a number of reasons.

- Spending is classed as either 'routine', which is treated as resource/current expenditure or 'structural' which is treated as capital expenditure. These two types of expenditure as administered by separated government departments and determined by different sets of criteria.
- Whilst central government grants may be determined according to estimates of local roads maintenance needs and even labelled as roads maintenance grants in

¹⁰ In this context meaning roadside footpaths.

most cases they are not 'ring fenced' and local authorities have discretion to use them for other services.

- Moreover usually local highway authorities will fund their highways maintenance activities from a mixture of government grant and their own resources.
- Apart from conventional grants to LHAs there are other grants (e.g. the Integrated Transport Block Grant and the Local Growth Fund Grant) which go to other bodies (Integrated Transport Authorities and local Enterprise Partnerships) part of which may be used to support local roads maintenance – although as yet these do not appear to provide a significant source of income for this purpose.
- Recently there have been two 'one off' grants for repairing severe weather damage and pothole repairs and it is not known if there will be similar grants in future and what they might amount to.
- In addition there is more than one form of maintenance service procurement and this can have an impact on grant regime with a number of LHAs having highways maintenance PFIs extending for periods of up to twenty five years.

This complexity makes it impossible to make direct linkages between sources of income and spending on local highways maintenance. However a number of conclusions can be drawn in respect of funding and spending levels for LHAs road maintenance activities.

- Highways (capital) block grant has been reducing over the last four years – by about 18% in real terms.
- Block grant has been set at about 35% higher in real terms in 2015/16 than that for 2014/15 and is to be kept at that (cash) level for six years. The basis of allocating this between local authorities has changed and the variable elements (26% by 2020/21) will introduce uncertainty for individual LHAs.
- The other sources of potential funding for LHAs (capital) road maintenance activities are uncertain as these will have to compete against higher profile transport and other projects and the relevant bodies represent a wide range of interests. It appears that roads maintenance hardly figures in the LEP's spending plans.
- Monies available to local authorities (both LHAs and others) has also been falling in the last few years by 14% in real terms between 2010/11 and the budgeted figure for 2014/15 and the prospects are that this reduction will continue. It has been estimated that funding for 'unprotected' local council services (which includes highway maintenance) reducing by 35% by the end of the decade.
- LHAs routine roads maintenance expenditure has been falling – by 16% over the last three years with minor roads taking the largest cut. Whilst there is uncertainty of how future spending will develop the overall prospects for unprotected local services indicate that the trend will continue to be downward.

To some extent the improved prospects for capital funding will offset the bleak prospects for current support. However there are two important caveats to this. Firstly the Highways Block Grant, running at just under £1bn/year, falls well short of LHAs structural maintenance expenditure of around £2bn/year. Secondly about 40% of all maintenance expenditure is currently 'routine'. Much of this (e.g. cleaning and street lighting) cannot be classified as capital and will not be much affected by increased capital spending.

Two other wider conclusions can be drawn from this review.

- First, the sheer complexity of arrangements for the funding of local transport activities – with its variety of grants and grant recipients – is quite striking. It is hard to see how anyone could establish with any degree of confidence what the prospects are for future local roads maintenance expenditure. Moreover the present funding and governance arrangements seem incapable of guaranteeing a defined outcome – even if one were to be targeted.
- Second, the difference between the planning and development of the national road network and that for local roads has never been starker. The Government has established a comprehensive framework of requirements for Highways England to meet over a five year period, with clarity over both capital enhancement and capital maintenance budgets plus a suite of so-called discretionary funds. By contrast, local highway authorities are still operating in a somewhat bewildering framework of expectations, duties, and funding mechanisms. It is hard to see how this will achieve the coherent and efficient operation of the road system as a whole, which is what road users really need.

6. References

- AIA (Asphalt Industry Alliance) (2013), *Businesses Count the £5 Billion Cost of Broken Roads*, [<http://www.asphaltindustryalliance.com/news-press.asp?info=YouGov>]. Accessed 15th October 2015.
- AIA (2015), *ALARM – Annual Local Authority Roads Maintenance Surveys 2004–2015*, [<http://www.asphaltindustryalliance.com/alarm-survey.asp>]. Accessed 15th October 2015.
- CH2M Hill (2014), *West Midlands Road Condition Study*, For DfT, Birmingham, August 2014.
- Cabinet Office (2014), *Local Growth Deals*, [<https://www.gov.uk/government/collections/local-growth-deals>]. Accessed 16th October 2015.
- Cabinet Office (2015), *Growth Deals gain momentum: firing up local economies*, [<https://www.gov.uk/government/news/growth-deals-gain-momentum-firing-up-local-economies>]. Accessed 16th October 2015.
- CBT & CPRE (Campaign for Better Transport & Campaign to Protect Rural England) (2013), *Where the money's going. Are the new Local Transport Bodies heading in the right direction?* [http://www.bettertransport.org.uk/sites/default/files/LTB_report_250913_web_FINAL.pdf]. Accessed 17th October 2015.
- CBI (Confederation of British Industry) (2014), *Taking the Long View: A New Approach to Infrastructure – CBI-URS Survey 2014*, [http://issuu.com/the-cbi/docs/cbi_urs_infrastructure_survey?e=8763041/10001920#search]. Accessed 15th October 2015.
- BIS (Department for Business Innovation and Skills) (2012), *Local Authority areas covered by LEAs*, [<https://www.gov.uk/government/publications/local-enterprise-partnerships-local-authority-mapping>]. Accessed 17th October 2015.
- DCLG (Department for Communities and Local Government) (2009), *Local authority revenue expenditure and financing in England: 2008 to 2009 final outturn*, [<https://www.gov.uk/government/statistics/local-authority-revenue-expenditure-and-financing-england-2008-to-2009-individual-local-authority-data>]. Accessed 17th October 2015.
- DCLG (2011a), *Local authority revenue expenditure and financing in England: 2009 to 2010 final outturn*, [<https://www.gov.uk/government/statistics/local-authority-revenue-expenditure-and-financing-in-england-2009-to-2010-final-outturn-revised>]. Accessed 17th October 2015.
- DCLG (2011b), *Local authority revenue expenditure and financing in England: 2010 to 2011 final outturn*, [<https://www.gov.uk/government/statistics/local-authority-revenue-expenditure-and-financing-in-england-2010-to-2011-final-outturn-revised>]. Accessed 17th October 2015.
- DCLG (2012a), *Live tables on commercial and industrial floorspace and rateable value statistics*, Table P401, [<https://www.gov.uk/government/statistical-data-sets/live-tables-on-commercial-and-industrial-floorspace-and-rateable-value-statistics>]. Accessed 15th October 2015.

DCLG (2012b), *Local authority revenue expenditure and financing in England: 2011 to 2012 final outturn*, [<https://www.gov.uk/government/statistics/local-authority-revenue-expenditure-and-financing-in-england-2011-to-2012-final-outturn>]. Accessed 17th October 2015.

DCLG (2013a), *Local authority revenue expenditure and financing in England: 2012 to 2013 final outturn*, [<https://www.gov.uk/government/statistics/local-authority-revenue-expenditure-and-financing-in-england-2012-to-2013-final-outturn>]. Accessed 17th October 2015.

DCLG (2014a), *Local authority revenue expenditure and financing in England: 2013 to 2014 final outturn*, [<https://www.gov.uk/government/statistics/local-authority-revenue-expenditure-and-financing-in-england-2013-to-2014-final-outturn>]. Accessed 15th October 2015.

DCLG (2014b), *Local authority revenue expenditure and financing England: 2014 to 2015 budget (revised)*, [<https://www.gov.uk/government/statistics/local-authority-revenue-expenditure-and-financing-england-2014-to-2015-budget>]. Accessed 15th October 2015.

DCLG (2015a), *Dwelling Stock Estimates: 2013, England*, [https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/285001/Dwelling_Stock_Estimates_2013_England.pdf]. Accessed 15th October 2015.

DCLG (2015b), *Detailed Single Data List*, [<https://www.gov.uk/government/publications/single-data-list>]. Accessed 15th October 2015.

DCLG (2015c), *Enterprise Zones application form*, [<https://www.gov.uk/government/publications/enterprise-zones-application-form>]. Accessed 16th October 2015.

DCLG (2015d), *The Local Government Finance Report (England) 2015/2016*, [https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/400350/46781_HC_1013_print_ready.pdf]. Accessed 17th October 2015.

DCLG (2015e), *Local authority revenue expenditure and financing England: 2015 to 2016 budget*, [<https://www.gov.uk/government/statistics/local-authority-revenue-expenditure-and-financing-england-2015-to-2016-budget>]. Accessed 17th October 2015.

DoT (Department of Transport) (1983), *Transport Statistics Great Britain 1972-1982*, HMSO, London, October 1983.

DfT (Department for Transport) (2004), *National Road Maintenance Condition Survey: 2003*, DfT.

DfT (2008), *Road Conditions in England: 2007*, SB (08) 17, DfT, London, May 2008.

DfT (2013a), *Roads reform: management of the strategic road network*, [<https://www.gov.uk/government/collections/roads-reform>]. Accessed 15th October 2015.

DfT (2013b), *Local transport body funding allocations*, [<https://www.gov.uk/government/speeches/local-transport-body-funding-allocations>]. Accessed 17th October 2015.

DfT (2014a), *Road investment strategy*, [<https://www.gov.uk/government/collections/road-investment-strategy>]. Accessed 15th October 2015.

- DfT (2014b), *Gearing up for efficient highway delivery and funding*, [https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/273820/efficient-funding-2015-2021.pdf]. Accessed 16th October 2015.
- DfT (2014c), *Pothole Fund – Guidance on the Application Process*, [https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/305469/pothole-fund-guidance.pdf]. Accessed 16th October 2015.
- DfT (2014d), *Local transport capital block funding*, [<https://www.gov.uk/government/publications/local-transport-capital-block-funding>]. Accessed 16th October 2015.
- DfT (2014e), *Response to the Consultation on Local Highways Maintenance Block Funding 2015/16 onwards*, [https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/393769/consultation-response.pdf]. Accessed 16th October 2015.
- DfT (2014f), *Local highways maintenance challenge fund: tranche 1 schemes*, [<https://www.gov.uk/government/publications/local-highways-maintenance-challenge-fund-schemes>]. Accessed 16th October 2015.
- DfT (2014g), *Pothole funding: 2014 allocations*, [<https://www.gov.uk/government/publications/pothole-funding-2014-allocations>]. Accessed 16th October 2015.
- DfT (2014h), *Pothole Fund – Guidance on the Application Process*, [https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/305469/pothole-fund-guidance.pdf]. Accessed 16th October 2015.
- DfT (2014i), *Integrated transport block grant allocations from April 2015*, [<https://www.gov.uk/government/publications/local-transport-capital-block-funding>]. Accessed 16th October 2015.
- DfT (2014j), *Response to the Consultation on Integrated Transport Block Funding*, [https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/267028/integrated-block-funding-response.pdf]. Accessed 16th October 2015.
- DfT (2015a), *Road lengths (miles) by road type and region and country in Great Britain, 2014*, Table RDL0102, [<https://www.gov.uk/government/statistics/road-lengths-in-great-britain-2014>]. Accessed 15th October 2015.
- DfT (2015b), *Road traffic estimates in Great Britain: 2014*, Table TRA0103, [<https://www.gov.uk/government/statistics/road-traffic-estimates-in-great-britain-2014>]. Accessed 15th October 2015.
- DfT (2015c), *Road Investment Strategy: Performance Specification*, [https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/382814/dft-ris-performance-specification.pdf]. Accessed 15th October 2015.
- DfT (2015d), *Skidding resistance of principal roads, in England, three year averages from 2008/09 to 2013/14*, Table RDC 0140, [<https://www.gov.uk/government/statistics/road-conditions-in-england-2014>]. Accessed 15th October 2015.

DfT (2015e), *Principal and non-principal classified roads where maintenance should be considered, by Region in England, 2007/08 to 2013/14*, Table RDC0121, [<https://www.gov.uk/government/statistics/road-conditions-in-england-2014>]. Accessed 15th October 2015.

DfT (2015f), *Percentage of unclassified roads where maintenance should be considered, in England, 2007/08 to 2013/14*, Table RDC0131, [<https://www.gov.uk/government/statistics/road-conditions-in-england-2014>]. Accessed 15th October 2015.

DfT (2015g), *Surface condition of trunk roads, in England, from 2005*, Table RDC0201, [<https://www.gov.uk/government/statistics/road-conditions-in-england-2014>]. Accessed 15th October 2015.

DfT (2015h), *Skidding resistance of trunk roads, in England, from 2005*, Table RDC0210, [<https://www.gov.uk/government/statistics/road-conditions-in-england-2014>]. Accessed 15th October 2015.

DfT(2015i), *Road lengths receiving maintenance treatment by road class and type of treatment, in England, from 1984/85*, Table RDC0320, [<https://www.gov.uk/government/statistics/road-conditions-in-england-2014>]. Accessed 15th October 2015.

DfT (2015j), *Maintenance expenditure by road class, in England, since financial year ending 2000*, Table RDC0310, [<https://www.gov.uk/government/statistical-data-sets/rdc03-roads-requiring-maintenance-and-road-lengths>]. Accessed 17th October 2015.

DTLR (Department for Transport, Local Government, and the Regions) (2001), *Transport Statistics Great Britain 2001 Edition*, TSO, London, October 2001.

DTLR (2002), *National Road Maintenance Condition Survey: 2001*, *Transport Statistics Bulletin*, SB (02)19, DTLR, London, January 2002.

Highways Act 1980, Chapter 66, HMSO, London, 1980.

Highways England (2015), *Highways England Delivery Plan 2015-2020*, [<https://www.gov.uk/government/publications/highways-england-delivery-plan-2015-2020>]. Accessed 15th October 2015.

HMT (HM Treasury) (2015a). *Chancellor George Osborne's Summer Budget 2015 speech*, [<https://www.gov.uk/government/speeches/chancellor-george-osbornes-summer-budget-2015-speech>]. Accessed 15th October 2015.

HMT (2015b), *Fixing the foundations: Creating a more prosperous nation*, CM 9098, [https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/443898/Productivity_Plan_web.pdf]. Accessed 15th October 2015.

IPCC (Intergovernmental Panel on Climate Change) (2012), *Managing the Risk of Extreme Events and Disasters to Advance Climate Change Adaptation*, [http://ipcc-wg2.gov/SREX/images/uploads/SREX-All_FINAL.pdf]. Accessed 17th October 2015.

LGA (Local Government Association) (2014), *Public want fuel duty to be spent on fixing roads*, [http://www.local.gov.uk/media-releases/-/journal_content/56/10180/6512011/NEWS]. Accessed 15th October 2015.

LGA (2015), *Future funding outlook for councils 2019/20 Interim 2015 update*, LGA London, June 2015, [<http://www.local.gov.uk/documents/10180/11531/Future+Funding+Outlook+interim/39ad19fb-e5d8-4a2b-81a8-bf139497782d>]. Accessed 17th October 2015.

NAO (National Audit Office) (2014), *Maintaining strategic infrastructure: roads*, [<http://www.nao.org.uk/wp-content/uploads/2015/06/Maintaining-Strategic-Infrastructure-Roads.pdf>]. Accessed 15th October 2015.

OBR (Office for Budget Responsibility) (2015), Cm 9042, *Economic and fiscal outlook*, [http://cdn.budgetresponsibility.independent.gov.uk/March2015EFO_18-03-webv1.pdf]. Accessed 17th October 2015.

Parkman, C., Abell, R., Bradbury, T. & Peeling, D. (2012). *Economic, Environmental and Social Impacts of Changes in Maintenance Spend on Roads in Scotland*, [www.transportscotland.gov.uk/strategy-and-research/publications-and-consultations/j235740-00.htm]. Accessed 15th October 2015.

Road Traffic Regulation Act 1984, Chapter 27, HMSO, London, 1984.

Sandford, M. (2015), *Combined Authorities*, House of Commons Library Briefing Paper No. 06649, [<http://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN06649#fullreport>]. Accessed 16th October 2015.

CIPFA (Chartered Institute of Public Finance & Accountability) (2014), *Service Reporting Code of Practice for Local Authorities 2015/16*, [<http://www.cipfa.org/policy-and-guidance/publications/s/service-reporting-code-of-practice-for-local-authorities-201516-update-pack>]. Accessed 16th October 2015.

NHT (National Highways and Transport Network) (2015), *National Highways and Transport Public Satisfaction Survey (2015a) 2014 NHT Survey Summary Report*, [<http://nhtsurvey.econtrack.com/>]. Accessed 15th October 2015.

Traffic Management Act 2004, Chapter 18, HMSO, London, 2004.

TGM (Transport for Greater Manchester) (2011), *Greater Manchester's third Local Transport Plan 2011/12-2015/16*, [http://www.persona.uk.com/m_metro/Core_docs/B/TfGM.B002.pdf]. Accessed 15th October 2015.



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