

Creating a True and Robust Picture of the Funding of Public Parks and Green Spaces across England

**New Policy Institute
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Summary

This report has used data collected by the Parks Action Group to assess the quality of the official data on local authority spending on parks. Informed by its conclusions, the report estimates what has happened to spending on parks in England over the seven years from 2010-11 to 2017-18. It concludes with recommendations for improving this official data in future.

The main findings of the report are as follows.

1. The official Revenue Outturn” (RO) data in line 130 is demonstrably related to the data collected by the Parks Action Group (PAG). However, being a perfect or close fit in only one quarter cases, it is not a reliable source of information about what any individual authority spends on parks in any individual year.
2. The PAG data show that the way local authorities record spending on parks within the RO return can vary over time. When large, such time inconsistency is a problem because it can bias the results. Statistical techniques have been used to identify likely anomalies within the RO130 data and remove them.
3. Using this corrected data (for 328 out of a total of 353 English local authorities), the report estimates that:
 - The volume of resources going into parks across England in 2017-18 stood at 74% of the 2010-11 level, down 26%. This compares with 76% for all spending on neighbourhood services and 80% for total service expenditure by local government (down 24% and 20% respectively).
 - After inflation, the value of parks budgets stood at 68% of the 2010-11 level (down 32%). This compares with 65% for neighbourhood services (down 35%) and 77% for total service expenditure (down 23%).
4. There are marked difference in outcomes by type of authority. The volume of resources going into parks in 2017-18 ranged from 90% of the 2010-11 level in shire districts (down 10%) to 66% in unitary authorities and 61% in metropolitan districts (down 34% and 39% respectively). With the research literature affirming the importance of parks in urban areas, this is a bleak finding for a majority of urban and/or unitary authorities.
5. On average, shire districts and London boroughs have protected resources for parks relative to neighbourhood services whereas other authority types have not. However, the effect of such choices is small relative to the size of the overall drop in resources for neighbourhood services.
6. The RO data used in this study is a unique source of information not just about what local government spends but about what it does and the services that local residents and others in the area receive from it. It has many users and serves multiple ends. We make six recommendations directed at the MHCLG, the LGA and especially individual local authorities aimed at improving and securing its quality and future.

1. Introduction

1.1. The importance of parks

More than half the UK population visit their local park at least once a month, especially young people, families with children and city dwellers.¹ 83% of the population of England now live in urban areas.² As urban areas become more densely occupied – for example, the London Mayor’s Draft London Plan foresees the capital’s population growing 20% by 2041 – so the need for parks and green spaces can only increase.³

The last two decades have seen a growth in research on the history and management of parks as well on the social, economic, environmental and health benefits that they provide. One striking finding is the gap there can be between what a park is shown as being worth in the local authority’s books (as little as a notional £1) and what its economic and social value is estimated to be (in excess of £100 million).⁴ This report is not about the value of parks but about what has been happening to the resources put into them. Even so, the idea that a piece of land that has been developed and cared for over many years to meet simple human needs is worth nothing must be the wrong starting point.

Parks and green spaces give people the opportunity to experience natural surroundings and provide a space in which to be physically active. These have benefits for mental health, physical health and general wellbeing. Providing a space for physical activity in an important resource for preventing and decreasing the risk of all the major diseases that are an economic burden to the health system. Parks also prevent mental ill health and a study found that the density of green space in urban areas across England has an impact on self-reported mental health. Parks are valued by families with children for the safe play areas they provide. Parks have a positive impact on child physical and cognitive development.⁵

Parks can improve the environment by supporting biodiversity, absorbing flood water, improving air quality and mitigating the urban heat island effect.⁶ These benefits will become increasingly important as temperatures rise due to climate change. Parks also have economic effects, including a positive impact on businesses located nearby through increased staff retention and productivity.⁷ For

¹ Heritage Lottery Fund (2016) *State of Public Parks: Research Report*. London: Heritage Lottery Fund

² DEFRA (2018) *Rural population 2014/15*. London: DEFRA.

³ Mayor of London, 2017, *The Draft London Plan*, p14.

⁴ CABE (2009) *Making the invisible visible: the real value of park assets*. London: CABE.

⁵ CABE (2009) *Making the invisible visible: the real value of park assets*. London: CABE.

⁶ House of Commons Communities and Local Government Committee (2007) *Public Parks: Seventh Report of Session 2016-17*. London: House of Commons.

⁷ CABE (2009) *Making the invisible visible: the real value of park assets*. London: CABE.

these benefits to be realised parks and green spaces must be kept in good condition and welcoming as most of the benefits only come when they are visited regularly.

Some of the benefits of parks are difficult to measure, for example, the way that good-quality parks and green spaces can strengthen communities.⁸ Some are easier to measure and a number of reports recently have attempted to put a real value on parks taking into account the benefits to mental and physical health, local environments and businesses. A 2017 report estimated that for every £1 spent on their parks, London and Londoners enjoy £27 in value⁹ while Sheffield and its citizens enjoy £36.¹⁰ 90% of the benefit accrues to households.

These estimated “returns” on spending to parks are averages. They cannot be used to argue that every *additional* £1 spent (or lost) will generate (or lose) £27 or £34 of benefit. The impact of changes in spending on the benefit flowing from parks is more complex than that, not least because the impact on any long-lasting asset takes time to show up. What these returns do show, however, is the magnitude of what is at stake if the resources devoted to parks experience a deep and sustained reduction.

1.2. Aims of the report

The aim of this report is to build a picture of what has been happening to spending on parks and green spaces across England as a whole, that is, for the 353 local authorities comprising 27 shire counties, 33 London boroughs, 36 metropolitan districts, 56 unitary authorities and 201 shire districts.

The money that each local council spends on parks and green spaces is knowledge that is in the public domain. That does not mean it is always easy to find. [Some councils](#) publish budgets show a separate spending line for parks, [others](#) show a combined figure for parks along, say, with street cleaning and grounds maintenance.

If we are interested in what has happened to spending on parks and green spaces in just a few local councils, it is possible to gather the data directly from the individual councils themselves. In doing so, it will be necessary to get to grips with the peculiarities of how each council reports its spending. Although that can be a challenge, it will mean that the data are not just numbers but truly useful information.

If there were reliable data for every authority, painting a picture for the 353 local authorities as whole would be straightforward. The problem is not that there is not data: [revenue outturn \(RO\)](#) data, collected and published every year by the Ministry of Housing, Communities and Local Government (MHCLG) provides a breakdown of

⁸ CABE Space (2005) *Does money grow on trees?* London: Commission for Architecture and the Built Environment.

⁹ Vivid Economics (2017) *Natural capital accounts for public green space in London*. London: Vivid Economics Limited.

¹⁰ Vivid Economics (2016) *The contribution made by Sheffield's Parks to the wellbeing of the city's citizens*. Available from [<http://www.vivideconomics.com/wp-content/uploads/2016/11/Briefing-The-value-of-Sheffields-parks.pdf>]

each council's revenue spending across about 180 categories. The problem is that it is not clear how reliable it is.

First, there is no single RO category called "parks" or "parks and green spaces". Our understanding – and the starting point of this research – is that spending on parks and green spaces may be in one (or more) of three categories, namely: "open spaces"; "sports and recreation facilities, including golf courses"; and/or "foreshore". Second, it is possible that the RO line which contains the parks data may also include spending on other activities too. Third, all of this may vary between local authorities, and over time.

Constructing a big picture that is reliable with raw materials whose quality is uncertain is possible but it does require care. On the way to meeting its overall aim, this report has two intermediate aims designed to assess the quality of the eventual statistical conclusion. They are:

- to assess how well the RO data reflects spending on parks at the level of the individual local authority; and
- to identify the reasons for discrepancies and assess how to handle them.

A third intermediate aim emerges as a bi-product of the first two, namely:

- to assess how inaccuracies in the RO data that lie behind these discrepancies might be reduced in future.

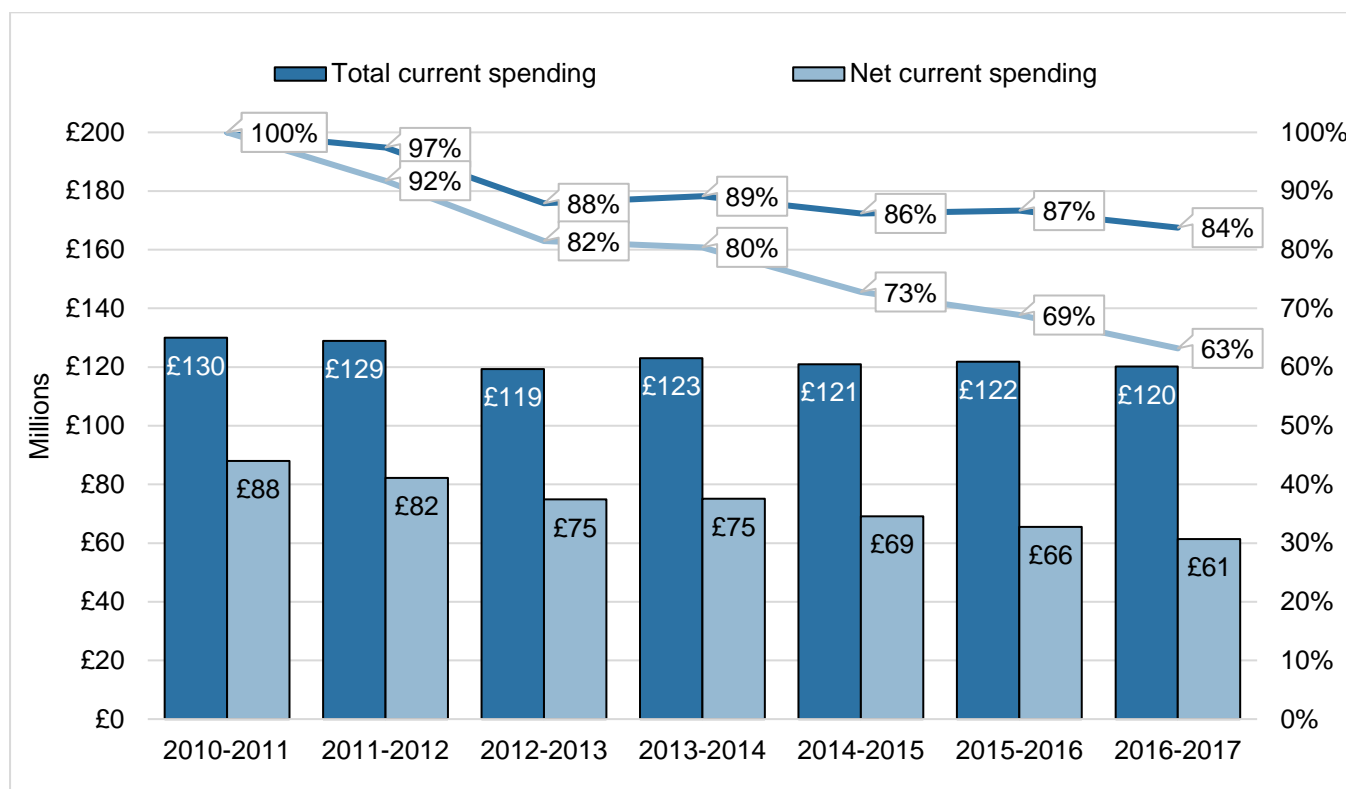
To meet these intermediate aims, other data against which to test the RO data is required. Data on parks spending collected directly from councils in early 2018 by the Parks Action Group (PAG) can play this role.

1.3. The Parks Action Group data

Using Freedom of Information requests, the Parks Action Group (PAG) obtained useable data in early 2018 from 37 local authorities – two shire counties, six metropolitan districts, four unitary authorities and 25 shire districts – as well as three town councils.

Figure 1 summarises what the PAG data shows about the total spending on parks by the 37 over the years 2010-11 to 2016-17. Two measures of spending are shown: total current spending and net current spending. These are in cash terms, that is, without any adjustment for inflation. Figure 1 also shows what has happened to total and current spending after adjusting for inflation, expressed as a percentage of the 2010-11 value.

Figure 1: total and net current spending for the 37 PAG local authorities



Source: spending data provided by the Parks Action Group. Inflation measured by the GDP deflator at market prices in Q3 of each year (ONS identifier L8GG)

Across the 37 authorities, total current spending on parks fell from £130 million in 2010-11 to £120 million in 2016-17. Almost all of the £10m fall occurred between 2011-12 and 2012-13. Over the six-year period, that is a fall of 8%.

Across the 37 authorities, net current spending on parks – in other words, after netting off income – fell from £88 million in 2010-11 to £61 million in 2016-17. Except for 2013-14, net spending fell every year. Over the six-year period, the fall amounted to 30%.

The difference between the £10 million fall in total current spending and the £27 million fall in net current spending shows the impact of the growth in income: up £17 million in 2016-17 on what it was in 2010-11.

On the measure of inflation used here, prices were about 10% higher in 2016-17 than 2010-11. After making the adjustment for inflation, total current spending on parks was 16% down in 2016-17 on where it had been six years earlier. Net current spending was 37% down.

For the avoidance of doubt: the percentage falls shown in figure 1 cannot be taken as reflecting the average across all councils. The PAG data is not sufficiently representative of all local authorities nor it is big or complete enough to permit such an inference. Figure 1 is a useful point of reference but the real role of the PAG data in this study is to allow detailed assessment of the quality of the RO data.

1.4. Contents of the report

The report has three chapters.

Chapter 1 presents the results of the validity check of the RO data using the PAG data (and some additional data from the Association of Public Service Excellence, APSE) as the standard against which it is checked. As well as the statistics, it also includes information from interviews with parks managers or accountants in some of the local authorities on what lies behind the differences between the PAG and RO data.

Chapter 2 uses the lessons learned in chapter 1 to create a picture of what has happened to spending on parks and green spaces across England whole using the RO data for all local authorities. This includes trends in total spending and how that compares, for example, with spending on local government neighbourhood services (of which parks and green spaces are a part). It also breaks the results down for several large sub-groups of authorities. This chapter goes beyond the timeframe of the PAG data by including just published results, for 2017-18.

Chapter 3 brings together information from a number of recent studies on parks in order to suggest what the changes in spending on parks and green spaces are likely to have done to the quality and condition of parks and green spaces. On the basis of the analysis in chapters 2 and 3, it sets out a series of recommendations aimed at improving not just the quality of the data on parks but across the RO dataset as a whole.

2. How good is the Revenue Outturn (RO) data?

2.1. Introduction

This chapter assesses the RO (Revenue Outturn) published annually by MHCLG against the PAG data in order to form a view on the reliability of the RO data as a England-wide measure of what has happened to spending on parks and green spaces. The assessment uses the 37 authorities from which useable data were collected by the PAG, namely:

- Shire districts (26): Bassetlaw, Blaby, Bolsover, Boston, Broadland, Broxtowe, Bury, Chesterfield, East Devon, East Hampshire, Eastbourne, Fareham, Gosport, Guildford, Harlow, Hertsmere, Hinckley & Bosworth, Lewes, Newcastle-under-Lyme, North East Derbyshire, Preston, Rugby, Runnymede, Stratford-on-Avon, Wyre and Wyre Forest.
- Shire counties (2): Essex, Nottinghamshire
- Unitary districts (4): Bedford, Derby, Leicester, North East Lincolnshire
- Metropolitan districts (5): Birmingham, Dudley, Leeds, North Tyneside, Rochdale

The PAG also obtained information from three town councils: Chippenham, Harpenden and Shrewsbury. As there is no RO data for town councils, they are not included in the assessment.

The annual data, from 2010-11 to 2016-17, is complete except for four authorities (Essex, Nottinghamshire, Newcastle-under-Lyme and Gosport) who did not provide it for 2010-11. Where required, we have assumed that the missing 2010-11 values for these four stand in the same percentage to their 2011-12 values as the totals for 2010-11 and 2011-12 do for the other 33.

Of the nine variables available for comparison in the PAG and RO data, we focus on two: total current expenditure and net current expenditure. The latter – net spending – is believed to correspond most closely to what council officers think of as the parks budget. After adjusting for inflation, the former – total (or gross) spending – is the best measure of the volume of resources being devoted to parks.

2.2. Which RO category is closest to the PAG data?

As noted above, one of the starting points of this research is that parks spending could be contained in one or more of three RO categories in the MHCLG data. They are: open spaces (RO130); sports and recreation facilities, including golf courses (RO128); and foreshore (RO122). Although RO130 (open spaces) is the most likely answer, it is important to check that there is evidence to support this.

RO122 can be discarded straightaway. Over the six-year period 2010-11 to 2016-17, only 71 of the 353 councils reported any spending under this heading. Only nine of them are among the 37 in the PAG data. While some spending on parks clearly could be contained in RO122, it is also clearly not where most parks spending is usually recorded. As a result, this report does not consider RO122 any further.

The next step is to check the totals. Table 1 shows the average annual spend (gross and net) over the seven years for the PAG, RO130 and RO128 data. The purpose is to see whether either RO category can obviously be ruled out simply on the grounds of scale. While the table shows that neither obviously can, the net spending column puts RO130 (£77.0m) much closer to the PAG total (£73.8m) than RO128 (£53.5m).

Table 1: average annual net and gross spend, 2010-11 to 2016-17 for the 37 PAG local authorities

	Gross spending	Net spending
PAG	£123.5m	£73.8m
RO130 (open spaces)	£121.6m	£77.0m
RO128 (sports and rec)	£123.3m	£53.5m

Source: NPI analysis of the PAG and RO data

At this point, we need to introduce the criteria that have been used to compare the PAG and RO data year by year for each local authority. Each local authority is placed in one of six categories, depending on how well the PAG data and the data in the relevant RO category match one-another year by year between 2010-11 and 2016-17. Local authorities are assessed against the categories in the order presented here. Once allocated, the assessment process for that authority stops.

- A “perfect” fit is where the PAG and RO data are equal throughout (strictly: within 0.5% of each other in every year). One exceptional year is allowed.
- A “close” fit is one where the annual absolute difference between the PAG and RO data is never more than 10% (after rounding). Again, one exceptional year is allowed.
- A “stable” fit is one where the annual differences between the PAG and RO data always lie within a range no wider than 20%. Again, one exceptional year is allowed. By design, all “perfect” fits are also “close” fits while all “close” fits are also “stable” fits.
- “No relationship” is where the annual differences fluctuate by more than 200%. In the few cases when this arises, it is assumed to reflect a problem with the data.

- “Trending” is where the sequence of annual differences between the PAG and RO data shows a statistically significant trend. Although there are only seven sets of observations, a formal, if simple, statistical approach can be applied.¹¹
- Any local authority which has met none of the above criteria is designated as “unstable”.

In the next section, it will be necessary to look at all six categories. Here, however, where the question is whether it is RO128 or RO130 which more closely resembles the PAG data, what is important is the number of “perfect” and “close” fits. Table 2 shows the counts for the two RO lines and for two variables, namely total (gross) spending and net spending.

Table 2: count of local authorities according to the closeness of fit between the PAG and RO data, 2010-11 to 2016-17

	“Perfect”	“Close”	Other
Gross spending: PAG vs RO128	0	0	37
Net spending: PAG vs RO128	0	0	37
Gross spending: PAG vs RO130	6	4	27
Net spending: PAG vs RO130	6	4	27

Source: NPI analysis of the PAG and RO data

The conclusion is clear: whereas RO130 produces six perfect fits and four close fits with the PAG data for both gross and net spending, RO128 produces none. As with RO122, some spending on parks certainly could be contained in RO128. But whereas RO128 can never claim to be the measure of parks spending, RO130 can, at least for some authorities. We can now assess the RO130 data on that basis.

2.3. RO130 and PAG data: LA level assessment

Table 3 summarises the results of comparing net expenditure in the PAG and RO130 data for each of the 37 local authorities. The six categories are as described above, that is, “perfect”, “close”, “stable”, “no relationship”, “trending” and “unstable”. Three of the six categories are further divided according to whether the RO130 data are larger than the PAG data or smaller. The trending category is divided according to whether the difference between RO130 and PAG is moving in a positive direction

¹¹ A simple linear regression of the percentage differences against a time trend, with statistical significance assessed at the 95% level (using a t-value of ± 2.57).

or a negative direction. An authority that has benefitted from the “one exceptional year” rule is shown with an asterisk.

Table 3: detailed assessment of RO130 data against PAG data: net expenditure, 2010-11 to 2016-17

Degree of fit	RO compared with PAG	Local authorities
Perfect (6)		Bedford UA, Eastbourne, Harlow, Lewes, North Tyneside*, Preston
Close (3+1)	Bigger	Blaby*, Hinckley & Bosworth, Runnymede
	Smaller	Newcastle-under-Lyme*
Stable (7+4)	Bigger	Bassetlaw*, Broxtowe, Dudley*, Gosport*, Hertsmere*, Wyre, Wyre Forest,
	Smaller	Bolsover, Chesterfield*, Fareham*, Guildford*
No relationship (4)		East Devon, East Hampshire, Essex, North East Lincolnshire UA
Trending: RO compared with PAG (2)	Positive	Birmingham
	Negative	Derby City UA
Unstable (10)		Boston, Broadland, Bury, Leeds, Leicester City UA, North East Derbyshire, Nottinghamshire, Rochdale, Rugby, Stratford-on-Avon

Source: NPI analysis of the PAG and RO data

Ten “perfect” or “close” fits was enough in table 2 to identify RO130 as much the stronger proxy for parks spending in the MHCLG data. But that number also means that the RO130 data does not give a good indication of spending on parks each year for 27 of the 37 councils. The RO130 data therefore cannot be used as a measure of what any particular local authority spends on parks in any given year. This does not mean, however, that the RO130 data cannot be used to create an overall picture of what has happened to spending on parks over several years.

Stepping back from the detail, table 3 shows the extent of the variation between local authorities in what they record under RO130. In one authority (Bolsover), RO130 is always zero. We understand that all spending on parks in this authority has been recorded under RO128. A lack of clarity about whether specific items belong in RO128 or RO130 has been flagged in discussions with the LGA. A draft note of these discussions includes a recommendation to move playing fields, sports grounds, play areas, football pitches and pitch and putt from RO128 to RO130.

This proposal has merit but a point to note from table 3 is that there are 10 cases where the RO130 data is bigger than the PAG data and only five the other way. As well as making it clear what should go in RO130, it is also important to make it clear what it should not – and where it should go instead.

Table 4, based on information provided by Rochdale, illustrates this. The PAG data here contained five items of spending, four of which were recorded under RO130 and one of which was recorded under RO128. The recommendation to move sports pitches of all kinds from RO128 to RO130 would probably eliminate the overlap between the PAG data and RO128. But this would still leave the problem of the seven spending items recorded under RO130 not deemed to belong to parks.

Table 4: allocation of functions to PAG, RO130 and RO128 (Rochdale)

Function	PAG	RO 130	RO 128
Parks; countryside services	✓	✓	
Landscape services; arboriculture; plant nursery		✓	
Sports Pitches	✓		✓
Bowling Greens located outside of parks			✓
Schools Ground Maintenance			✓
Grounds maintenance including apprentices; contracts with other bodies and under S106.		✓	
Rights of way maintenance; funded environment; schemes; public events		✓	
Playground inspections	✓	✓	

Source: based on information supplied via email correspondence

The crux of the argument is this. If the question is about how spending on parks varies between local authorities, the inconsistency on display in table 3 and the scope for inconsistency revealed in table 4 show that the RO130 data just are not good enough, at least on their own, to provide an answer.

On the other hand, if the question is about how spending on parks, either in total or for large groups of authorities, has varied over time, then tables 3 and 4 may not be disastrous at all. It is not that consistency does not matter; rather, it is that the consistency that matters now is consistency over time. If Chesterfield (RO130 smaller than PAG) records things one way while Bassetlaw (RO130 smaller than PAG) records them another, that may not matter so long as each goes on doing more or less the same thing from one year to the next.

That is why table 3 identifies two authorities who are neither close nor stable but where the difference between the PAG and RO130 data shows a statistically discernible pattern over time. Although this trend for Derby City, where the RO data declines faster than the PAG data, is statistically significant, the scale is small and it really makes no difference. Birmingham is different. In each of the first four years, its RO130 values are less than half its PAG values. In both the last two years – 2015-16 and 2016-17 – RO130 is slightly bigger than PAG. With Birmingham accounting for 22% of net spending across the 37 authorities in 2016-17, a shift like this matters.

One factor which we understand has contributed to this is the transfer of street maintenance to the parks budget. This raises a question about the difference between spending on parks and a parks department's budget. It also underlines the importance of a previous point about making it clear what should not go in RO130. What matters here, however, is that the assessment of how well the RO130 data matches the PAG data should take these trends into account.¹²

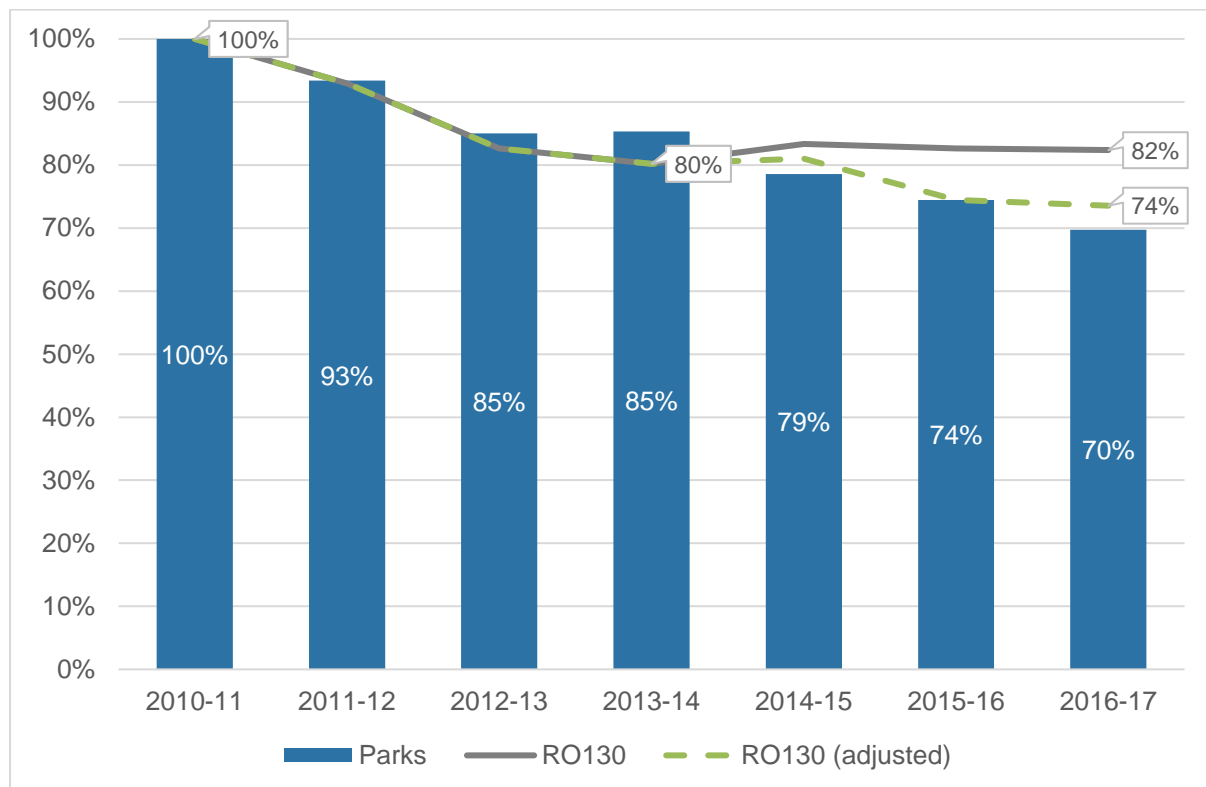
2.4. RO130 and PAG data: aggregate assessment

Figure 2, compares what has happened to net expenditure on parks for the 37 PAG LAs according to both the PAG and the RO130 data. Each year's value is expressed as percentage of the corresponding 2010-11 value (£73.8 million for the PAG data and £77 million for the RO130 data, as per table 1). Two lines are shown for the RO130 data: an unadjusted series and an adjusted series in which the values for both Birmingham and Derby have been adjusted to correct for the trend picked up in the analysis behind table 3.¹³ The series shown in this graph have not been adjusted for inflation.

¹² Unlike "trending" local authorities, those in the "no relationship" or "unstable" categories don't bias the comparison between RO130 and PAG. Their seemingly pattern-less fluctuations do reduce the overall goodness of fit between the two sets of data.

¹³ The adjustment involves adjusting the RO130 data in each of the last three years (2014-15 to 2016-17) so that it holds the same ratio to the PAG data in each year as it does on average over the first three years' data (2010-11 to 2012-13). This particular adjustment is certainly arbitrary. However, two

Figure 2: net current spending for the 37 PAG local authorities as a percentage of 2010-11: PAG and RO130 data



Source: NPI analysis of the PAG and RO data

The picture in figure 2 is one of close correspondence between the PAG and RO130 data in aggregate for 2011-12 (both showing a 7% fall) and 2012-13 (down 15% and 17% respectively on 2010-11) but a growing divergence after. Net spending holds steady on the PAG data for 2013-14 after which it starts to fall steadily. By contrast, the RO130 data recovers a little and then remains within a percentage point of 2011-12 value throughout. In 2016-17, the gap between the two measures is a full 12 percentage points.

The adjustments for Birmingham and Derby in the last three years go a long way towards closing this gap. The adjusted RO130 is within two percentage of the PAG data in 2015-15 and coincides with it in 2015-16. In 2016-17, the gap opens again, to four percentage points (one third of the unadjusted gap).

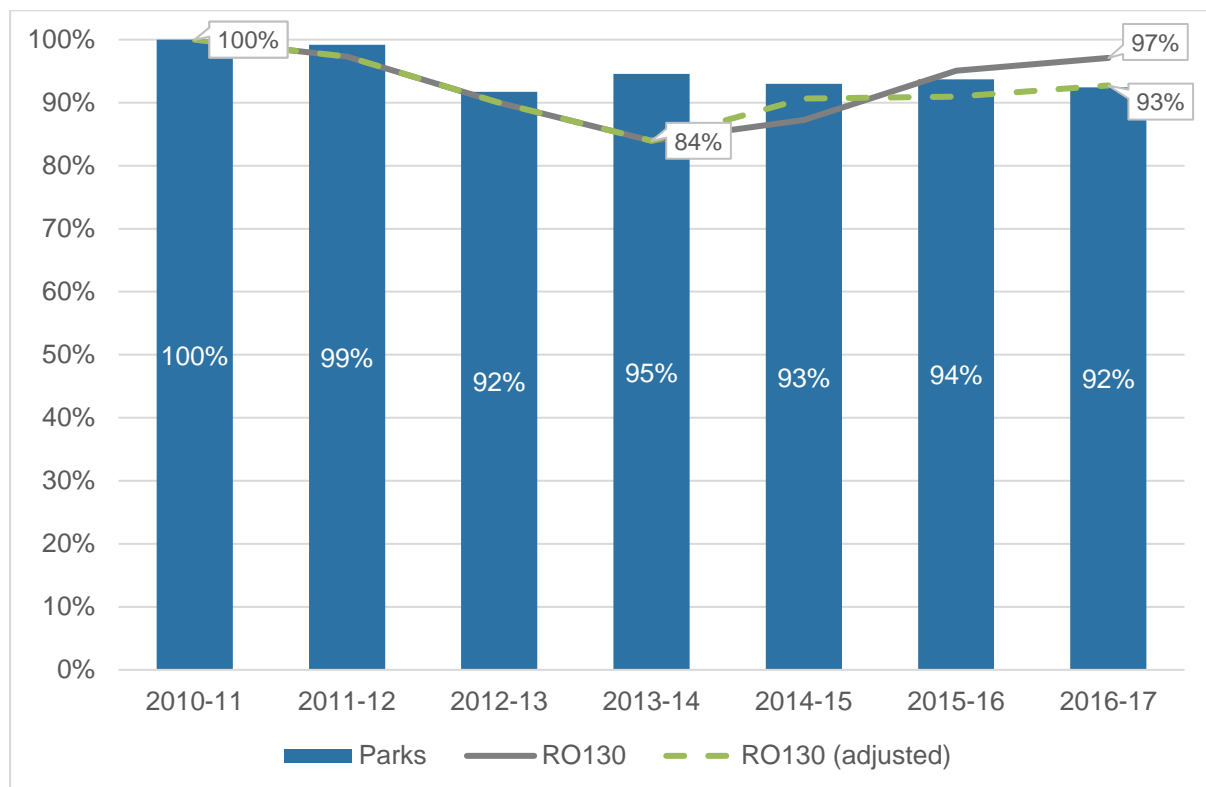
The conclusion we draw here is that this process of using a rule-based approach to identify suspect data at the level of the individual local authority is one that adds real value. Most of the inaccuracies and idiosyncrasies in the RO data for individual authorities disappear in the process of averaging. Trending data, especially when it is a large authority, does not disappear. In practice, these adjustments need

points should be stressed. The first is that the choice of which local authorities to correct for is fully determined by the set of rules, both non-statistical and statistical, which generated the classification shown in table 3. The second is that there has been no trial and error in this process, that is, the results shown here are what has dropped out of the set of rules adopted a priori.

additional information to support them. To the extent that Birmingham has experienced a shift in the scope of its budget, we have that here. The practical implications of this for future practice are discussed in the concluding chapter.

Figure 3 shows the same comparison for gross spending on parks according to the PAG data and from RO130. As with figure 2, no adjustment has been made for inflation. The adjustments to the RO130 data in figure 3 reflect the outcome of an identical process for gross spending as was used to produce the results in table 3 for net spending. The detailed results show some differences. For example, while the same six authorities were perfect in both, Hertsmere shifted to “close” for gross spending and Newcastle-Under-Lyme shifted to “stable”. The important difference is six authorities were classified as trending: Birmingham and Derby as before plus Bury, Dudley, Leeds and Rochdale.

Figure 3: gross current spending for the 37 PAG local authorities as a percentage of 2010-11: PAG and RO130 data



Source: NPI analysis of the PAG and RO data

Figure 3 shows that the RO130 data tracks well for the first three years but there is then a large difference in 2013-14 (visible, to a lesser extent, in figure 2 as well). Over the last three years, the adjusted tracks the PAG data better than the unadjusted data in the first and third years and worse in the second. Although the improvement in accuracy is less than in figure 2, the underlying need for an adjustment is less too. The scale of the adjustment is smaller too, reflecting the fact that the effect of the other five authorities is acting in the opposite direction to Birmingham.

2.5. Conclusion

The conclusion we draw from figures 2 and 3 is that despite the vagaries of the individual data, the RO130 data in the aggregate does track the PAG data in the aggregate – but that a process of adjusting for individual local authorities showing a pronounced trend improves the accuracy.

This conclusion has two practical implications. The first is that there can be no fundamental objection to using the RO130 data for all 353 local authorities to create the overall picture of spending on parks which is the main aim of this report. The second is that within this, it is important to identify authorities whose RO130 spending may be biasing the overall picture and then to adjust for it. Since the PAG data only covers 37 of the 353, it is necessary to find a different way from the one used in this chapter to make that adjustment.

3. What happened to spending on parks in England between 2010 and 2018?

3.1. Introduction

Resting on the conclusion of the previous chapter about the adequacy of the RO130 data on open spaces as a proxy for spending on parks, this chapter creates a picture of what the official data shows has happened. The chapter focuses on two measures of spending on parks:

- the volume of resources devoted to parks, using ‘total expenditure’ in the RO data to measure the value of the gross resources devoted; and
- the net spending on parks, after allowing for inflation, using ‘net current expenditure’ in the RO data as the pre-inflation measure of spending.

In both cases the RO data is adjusted to correct for inflation. To do this, the GDP deflator (in the third quarter of the year) is used as the price index for the financial year as a whole. The use of the GDP deflator for this purpose follows the practice of the National Audit Office when examining local government spending. By convention, the inflation-adjusted statistics are labelled “real” while ones that have not been adjusted are labelled “nominal”. There was no inflation-adjustment in chapter two: the statistics there, in table 1 and figures 2 and 3, are “nominal”.

In this chapter, the statistics are presented as a percentage of the 2010-11 value. MHCLG has just published a new set of Revenue Outturn results. As a result, this chapter extends the analysis to include 2017-18, one year beyond the timeframe of chapter 2.

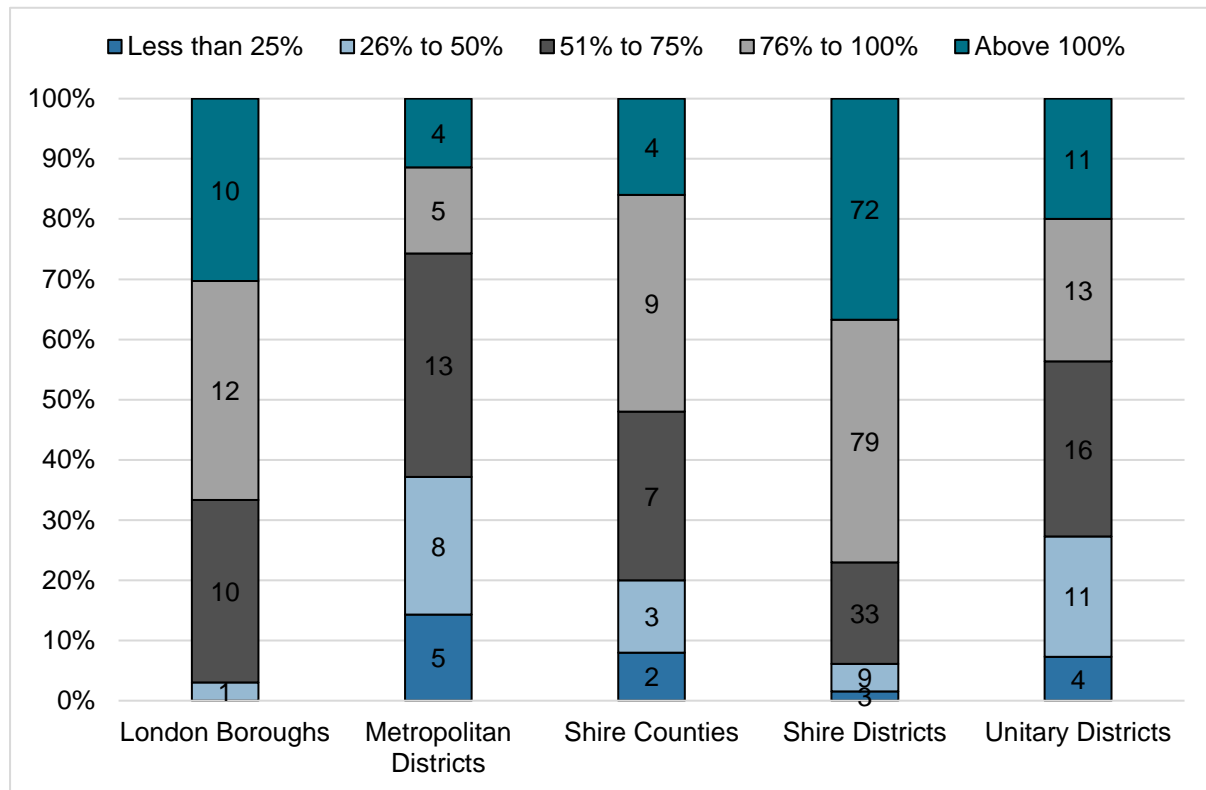
One of the striking characteristics of local authority spending is the great range between individual authorities. This is true at every level and RO130 is no exception. Figure 4 shows this for one statistic, namely the volume of resources devoted to parks in 2017-18 as a percentage of the 2010-11 level. For each of the five authority types, (London borough, metropolitan districts, shire counties, shire districts and unitary districts), figure 4 counts how many authorities have seen resources fall to less than 25% of the 2010-11 level, how many to between 25% and 50%, and so on. Nine authorities have been excluded from this count – and from the analysis in the rest of this chapter, on the grounds that data for the key years is either missing from the RO130 record or is shown for RO130 but where the total is missing.¹⁴

As can be seen, 101 authorities across all five types were devoting more resources to parks than seven years earlier. A few (Birmingham included) are shown as devoting more than twice as much as in 2010-11 (one as high as an eightfold

¹⁴ The nine are: the shire districts of Bolsover, Copeland, Cotswold, Shepway and Tandridge; the shire counties of Cambridgeshire and Oxfordshire; the unitary Isles of Scilly; the metropolitan district of Wigan. The missing totals referred to are to the RSX data – see below.

increase). Yet 14 authorities (five metropolitans, two shire counties, three shire districts and four unitaries) were devoting less than a quarter of the resources of 2010-11.

Figure 4: volume of resources for parks (RO130) in 2017-18 as a percentage of 2010-11: count of individual local authorities by local authority type



Source: NPI analysis of the RO data. Inflation measured by the GDP deflator at market prices in Q3 of each year (ONS identifier L8GG)

3.2. Identifying sources of bias in the RO130 parks data

These statistics cannot necessarily be taken at face value. As well as internal reorganisation (as in the case of Birmingham previously), large cuts and/or large increases may reflect some reorganisation across authorities. Neighbouring councils at opposite ends of the spectrum in figure 4 are suggestive of this. Examples include: East Cambridgeshire (a big increase) and South Cambridgeshire (a big fall); Redcar and Cleveland (a big increase) and its two neighbours Stockton and Middlesbrough (big falls); and even Birmingham’s neighbour Solihull (a big fall). Big increases in one place matched by big falls in another will balance out. Big increases or decreases for internal reasons will not and therefore risk biasing the results.

In order to identify them, we need a yardstick against which to assess their reasonableness. Our choice of yardstick is spending on the much larger group of local government services of which they are a small part. This larger group is “neighbourhood services” (NS). This is a collective term which over the past couple

of years has come to be applied to the four main areas of spending controlled by local government but which are neither social care nor education. The four are: highways and transport services; cultural and related services; environmental and regulatory services; planning and development services. RO130 represents about 6% of this total.

Once again, we use regression analysis, this time to estimate a statistical relationship between the percentage change in the spending on parks (RO130) by a local authority between 2010-11 and 2017-18 and the percentage change in its spending on neighbourhood services over the same period. The result expresses what happened on average across the 344 local authorities. Using this relationship, we then estimate the *expected* change in RO130 for any authority given its actual spending on neighbourhood services. A big difference between the expected and *actual* changes in RO130 means that the authority is an outlier.

A couple of examples will help. First, Birmingham: over the seven years, total spending on neighbourhood services fell (in cash terms) by 19%. While there is still a lot of uncertainty at this point, if Birmingham were average, the expected fall in spending on parks would be 7%. As it is, spending on parks (RO130) went up 140%. Second, South Cambridgeshire where RO130 fell 98% even though spending on neighbourhood services rose (in cash terms) by 35%.

In both these cases, the difference between the actual and the expected value for RO130 (the “residual”) exceeds 100% of the 2010-11 value. Rather than make adjustments for such authorities as we did in chapter two, the approach here is to discard the authorities with largest residuals. 16 have been discarded in total. The local authority with the largest absolute residual (South Norfolk) was discarded first. The statistical relationship was then re-estimated and the authority with the largest residual this time (Forest of Dean) was discarded; and so on.¹⁵ This process continued until there were no residuals in excess of 100%.¹⁶ The resulting set of 328 local authorities will be used in the rest of this chapter to estimate what has happened to spending on parks since 2010-11.

Before doing this, there is one other point of note here. The analysis used to select which authorities to discard was carried out using gross spending. The statistical fit between the change in gross spending on parks and the change in the gross spending on neighbourhood services was weak but discernible (an R^2 of 0.12). By

¹⁵ In the order in which they were discarded, the 16 are: South Norfolk, Forest of Dean, South Northamptonshire, Kingston upon Thames, Crawley, Three Rivers, North East Lincolnshire, Waltham Forest, Birmingham, East Cambridgeshire, Gravesham, Boston, South Cambridgeshire, Brentwood, Leicestershire and Broxtowe.

¹⁶ While this 100% cut-off is an arbitrary rule for choosing the total number of outliers to discard, there is additional support for it in the shape of the Jarque-Bera statistical test for non-normality. At the point where the first 14 had been discarded, the JB test statistic dropped below its critical value (+5.99) indicating that the hypothesis that the residuals were normally distributed could no longer be rejected. This test picks up both the asymmetry and the fatness of the tails of a distribution. While eliminating the outliers sequentially obviously deals with the fatness of the tails, it also happens in this case to deal with a pronounced asymmetry (more large outliers – like Birmingham). That is important because it is asymmetry which translates into a bias in the resulting average change in RO130.

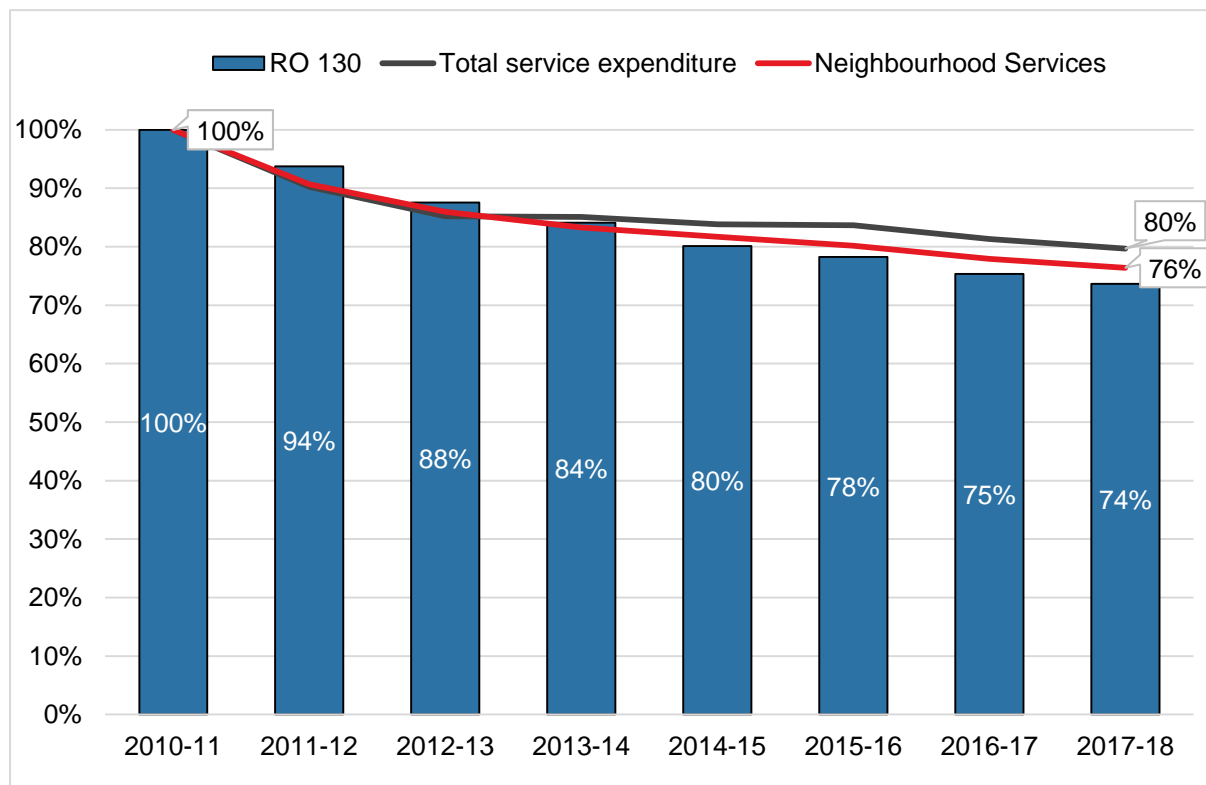
contrast, the statistical fit for the same 328 local authorities between the change in net spending on parks and net spending on neighbourhood services was non-existent (an R^2 of 0.01). Whereas there is a weak connection between aggregate resources and the resources going into parks, there is no connection between aggregate budgets and the budget for parks.

3.3. Spending on parks (RO130): all local authorities

Using this set of 328 local authorities, we can now see what has happened to spending on parks over the seven years from 2010-11 to 2017-18.

Figure 5 shows the volume of resources devoted to parks (RO130) over the seven years from 2010-11 to 2017-18 for all English local authorities. After falling sharply by six percentage points in both 2011-12 and 2012-13, the pace of decline slowed to about half the previous rate. Even so, they have fallen in every year. By 2017-18, they had reached 74% of their 2010-11 level (down 26%). This level is two percentage points lower than the index for total resources devoted to neighbourhood services and six percentage points lower than total service expenditure.

Figure 5: volume of resources for parks (RO130), neighbourhood services and total service expenditure, as a percentage of 2010-11



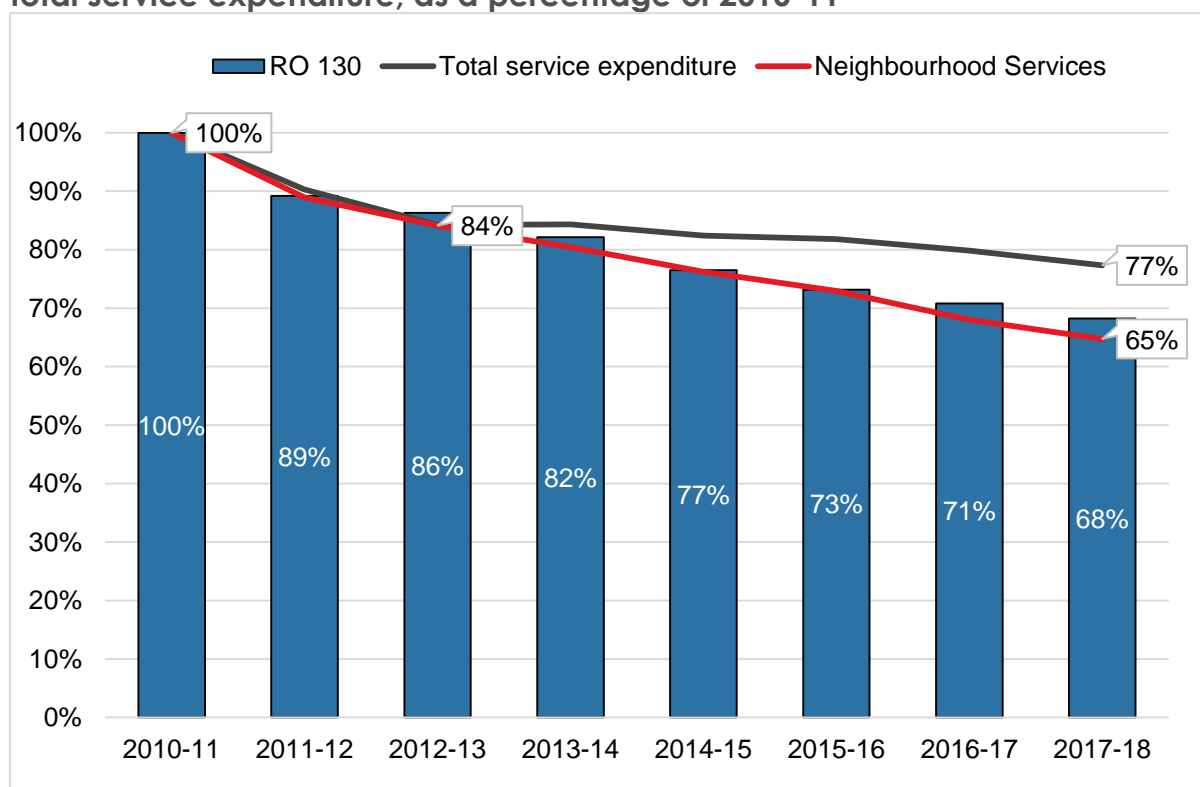
Source: NPI analysis of the RO and RSX data. Inflation measured by the GDP deflator at market prices in Q3 of each year (ONS identifier L8GG)

It should be noted that the reduction in the number of local authorities from 344 to 328 has made a significant difference here. Without it, the estimate for spending on

parcs in 2017-18 would be nearly four percentage points higher than here, taking it a little above the value for neighbourhood services as a whole.

Figure 6 shows net spending after inflation devoted to parks (RO130) over the seven years from 2010-11 to 2017-18 for all English local authorities together. Standing at 68% of the 2010-11 value in 2017-18 (down 32%), net spending on parks has held up slightly better than net spending on neighbourhood services overall (65%, that is, down 35%). Since 2012-13, however, both have fared far less well than net total service expenditure, reflecting both the growth in spending on social care and the introduction of the public health grant.

Figure 6: real net spending on parks (RO130), neighbourhood services and total service expenditure, as a percentage of 2010-11



Source: as figure 5

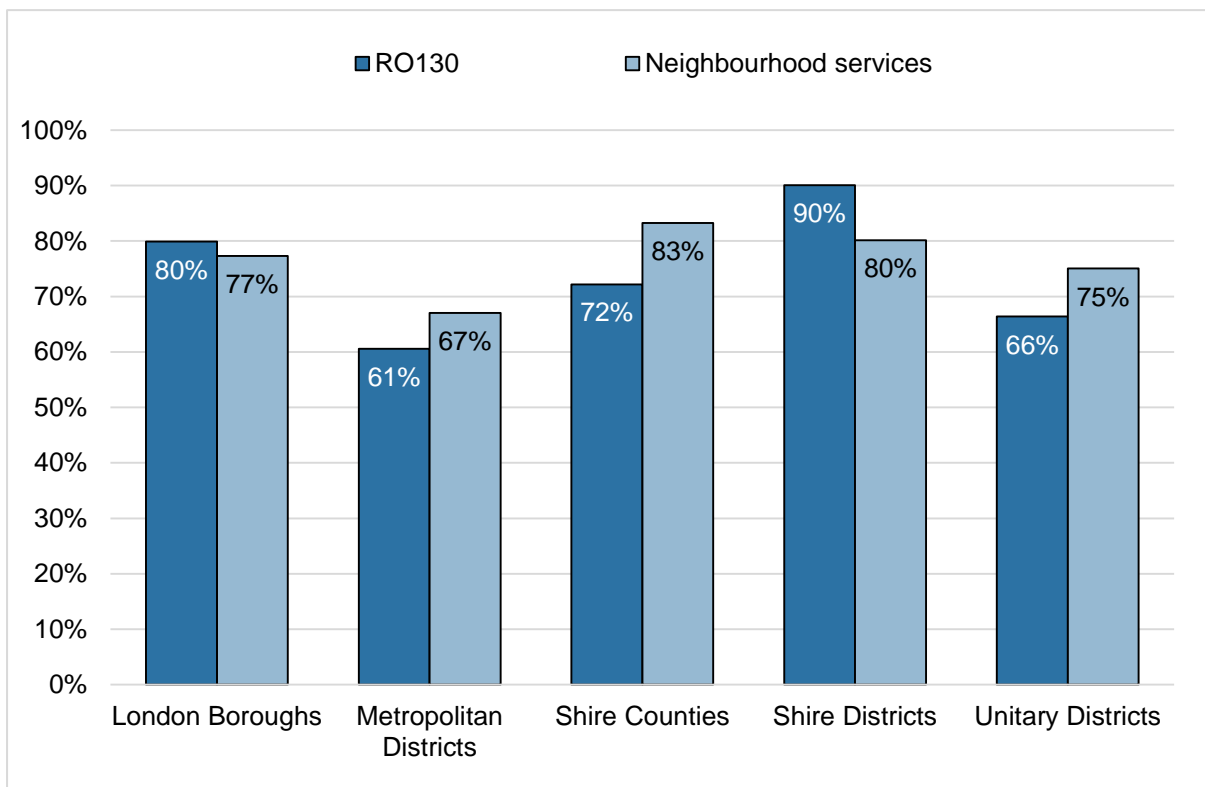
Comparison of figures 6 and 7 also shows that the volume of resources devoted to parks has held up more strongly than real net expenditure (74% compared with 68%) reflecting the impact of higher fees, charges and other income generated by parks over the period. The difference between volume and net expenditure is even greater for neighbourhood services as a whole (76% compared with 65%).

3.4. Spending on parks (RO130): by class of local authority

Figure 7 uses the data on the volume of resources for parks and neighbourhood services behind figure 5 to show the 2017-18 position as a percentage of 2010-11 for

the five classes of local authority, namely London boroughs, shire counties and metropolitan, shire and unitary districts. This graph shows several striking contrasts. First, the volume of resources going into parks in 2017-18 ranged from an average of 90% of the 2010-11 level in shire districts (down 10%) to 61% in the metropolitan districts (down 39%). London boroughs were second (80%), shire counties third (72%) and unitaries fourth (66%). Bearing in mind the importance of parks in urban areas noted at the start of this report, this is a bleak picture all but about four fifth of all urban and/or unitary authorities (cf. figure 4).

Figure 7: volume of resources for parks (RO130) and neighbourhood services, as a percentage of 2010-11: by authority type



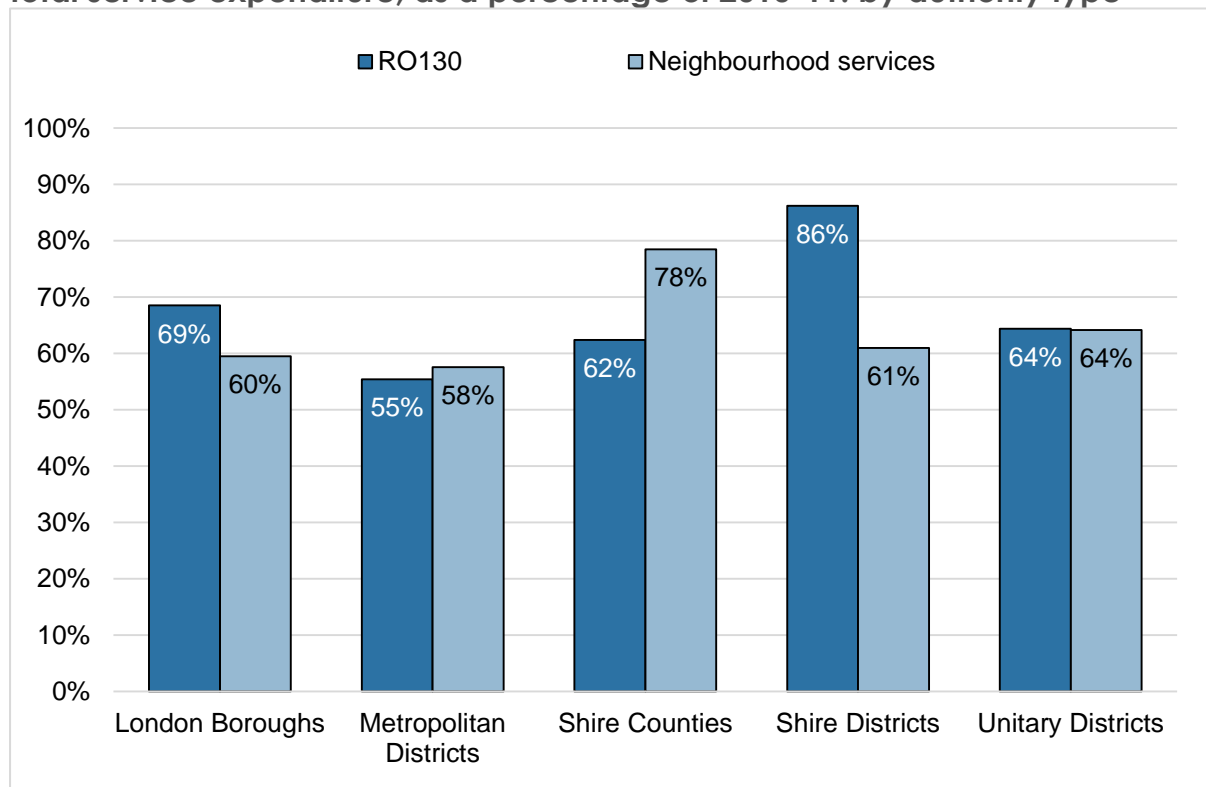
Source: as figure 5

Second, London as a whole and shire districts as a whole have protected resources going into parks relative to resources for neighbourhood services as a whole. The opposite is the case for the other three types of authorities. Shire counties may be a special case. Their responsibilities in this area are less and different (mainly country parks). The comparison is also influenced by the relatively high level of spending on neighbourhood services (83% of the 2010-11 level).

Figure 8 repeats the comparison for real net spending. If the patterns are similar, what stands out are the very low levels of net expenditure in unitary and especially metropolitan districts: 64% and 55% of the 2010-11 levels (down 36% and 45%) respectively. Although shire districts are in a more favourable position, even their budgets are 14% down on 2010-11. Since this fall is close to inflation over the

period, parks budgets in shire districts are on average only down a couple of percentage points in cash terms. Figure 8 also reinforces the sense that on parks, shire counties are quite different from the other authority types, with different responsibilities and different opportunities to generate income.

Figure 8: real net spending on parks (RO130), neighbourhood services and total service expenditure, as a percentage of 2010-11: by authority type



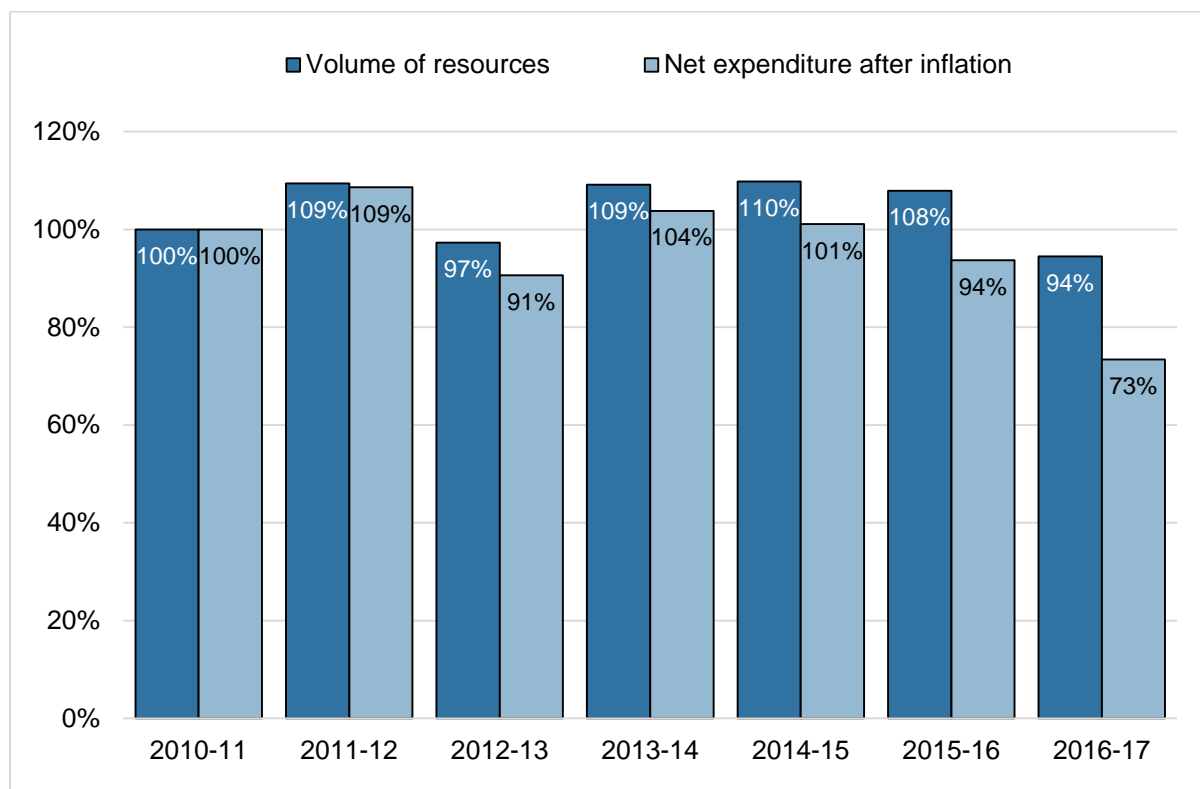
Source: as figure 5

3.5. Spending on parks: town councils

Although there is six full years of PAG data for two town councils – Chippenham and Harpenden – the resulting picture is instructive. Figure 9 shows what has happened to the volume of resources and net expenditure between 2010-11 and 2016-17.

Until 2015-16, the story for these two towns councils looks quite different from that for the bigger local authorities with the volume of resources above the 2010-11 levels in four of the subsequent five years and net expenditure after inflation never below 90% of the 2010-11 value. But in the last year – 2016-17 – the volume of resources dropped to 94% while net expenditure after inflation fell to 73%.

Figure 9: Figure 6: volume of resources and real net spending, 2010-11 to 2016-17: town councils



Source: as figure 1

While town council spending on parks was little changed until 2015/16, the position may since have worsened. Data on the volume of resources for a third town council – Shrewsbury – which is only available from 2013-14, is in line with this idea. If town councils have fared better, they have not been protected altogether.

3.6. Conclusions

The resources going into parks came down by an average of 26% across England between 2010-11 and 2017-18. Net budgets after inflation came down 32%. These are substantial falls. Although the pace has been slower in recent years, the direction is still downwards. Resources for parks have fallen by more than for neighbourhood services as a whole; budgets have come down by a little less. Differences between authority types are striking: resources for parks in shire districts are 10% down over seven years compared with falls of 34% and 39% for unitary and metropolitan authorities. These averages hide bigger differences still between individual councils.

The attempt to identify and remove local authorities from the totals where there are grounds to be believe that the data should not be taken at face value have made a difference, especially to the overall level of resources for parks which is about four percentage points lower as a result. By contrast, it has made little if any difference to the relative position of the different authority types.

4. Conclusions and recommendations

4.1. Some consequences of spending reductions on the quality of parks and open spaces

Reductions in spending on the scale recorded here have tangible consequences.

The fall in spending on parks from 2011 came after a 15-year period during which the resources devoted to parks had been rising. After a long period of low investment, parks across the UK were in poor condition in the mid-1990s.¹⁷ In 1996, the Heritage Lottery Fund began to provide targeted funding for the restoration of parks. This was matched by greater funding for local government meaning that the quality of parks and green spaces rose between 1996 and 2010.¹⁸ 1996 also saw the introduction of the Green Flag award which raised and maintained standards across public parks in the UK.

An inquiry in 2016 by the Communities and Local Government Select Committee of the House of Commons describes the impact that falling local government revenue budgets was having on parks. They include:

- Temporary or permanent closure of park facilities such as water fountains and public toilets.
- Downgrading of park facilities, including reduced opening hours, reduced park programmes and equipment replaced with cheaper options.
- A drop in the standard of maintenance for example, increased algae in ponds, reduced grass-cutting.
- Decreased ability to enforce park bylaws and regulations, leading to increased antisocial behaviour, litter vandalism and other crime.
- Loss of staff capacity, skills and expertise reducing the quality of maintenance and harming councils' abilities to build relationships with the local community.

Local authorities mentioned two areas where spending had fallen. Reduced staffing levels meant reduced opening hours, even closure, as well as fewer people to deal with anti-social behaviour, litter and vandalism. If sites become less welcoming, due to vandalism or an unkempt appearance, visitors could be put off coming. The gain from the physical and mental wellbeing arising from parks would be reduced too.¹⁹

¹⁷ CABI (2009) *Making the invisible visible: the real value of park assets*. London: CABI.

¹⁸ Layton-Jones, K. (2016) *Uncertain Prospects: Public parks in the new age of austerity*. London: The Gardens Trust

¹⁹ Derbyshire County Council (2016) Evidence submitted to the House of Commons Communities and Local Government Committee. Available from:

Some of the effects of resource reductions are short term and will have fairly immediate effects on park and park users, such as reduced litter picking. Other impacts are longer term and could be self-reinforcing.

A loss of staff capacity can mean that there is no longer a dedicated resource to act as public liaison officers and provide support to community groups. Friends, volunteers and other community groups have played a key role in mitigating the impact of budget reductions on local parks. Without support, these groups may be less able to contribute to the upkeep and enhancements of their local park. As local groups have helped to mitigate the effects of funding reductions on parks, a lack of support for these groups could lead to faster deterioration in the quality of parks in future.

A fall in spending on staff can also lead to a lack of staff capacity for strategic thinking and planning. For some local authorities, it may now be difficult to apply for grant funding or build relationships with the third sector or take advantage of new opportunities. The staff that remain work more reactively and are busy responding to everyday queries rather than forward planning and building relationships with possible partners.²⁰

The Green Flag award, run by Keep Britain Tidy (KBT) was developed as a minimum standard for the management of parks and green spaces. The scheme is assessed in two categories; the management plan and the quality of the site.

The number of green spaces with the Green Flag award grew from seven in 1997 to 1701 in 2016, although this is still a small proportion of the 27,000 green spaces in England. Over the period 2010 to 2016, the number of Green Flag sites grew by 28%. However, there was a 19% fall in the North West, no change in Yorkshire and the Humber and just a small increase of 11% in the North East.

An increase in the inequality of parks and green spaces as between more and less deprived areas may be another longer-term effect. Local authorities may be able to mitigate the impact of funding reductions by working with community groups and volunteers but dwindling resources could bring local groups into competition with one another. Better resourced groups are usually located in more affluent areas so parks in deprived areas, who may not have the support of a local group, may lose out.²¹

The scores that Green Flag sites received for the quality of the site did not fall over the eight years to 2016. However, there was a fall in scores received for the management plan. Keep Britain Tidy suggested that many organisations had lost the skills or resources to produce good management plans. This is problematic because without a management plan, parks lack focus, direction and a framework to maintain

<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/communities-and-local-government-committee/public-parks/written/38469.html>

²⁰ NPI (2018) *Hollowed out: The impact of financial localisation on neighbourhood services*.

Manchester: Association of Public Service Excellence.

²¹ House of Commons Communities and Local Government Committee (2007) *Public Parks: Seventh Report of Session 2016-17*. London: House of Commons.

standards: 'the reduction in the quality of planning can only lead to the decline of parks in future years'.²²

4.2. Recommendations regarding improving the quality of data on parks

The official data which this study has used is a unique source of information not just about what local government spends but about what it does and about the services that local residents and others in the area enjoy. It has many uses and many users. It serves multiple ends. As with any large dataset, the whole is more than the sum of the parts.

This now a well-established dataset, going back 10 years. This longevity is of value in its own right. A key requirement for any large, long-standing dataset is consistency. However, the consistency that matters depends upon the use to which the data is to be put. Any improvement to the data entails a change and it is possible that an improvement in one direction (for example, to achieve greater consistency across councils) is a deterioration in another (because there is now an inconsistency over time in what particular data fields some councils' practice). This is not an argument against change but a reminder first, that change has a cost and second, that the many varied interests in this dataset can at times clash with one-another.

This study has been unusual in devoting so much attention to just two of the spending lines within a dataset of around 180. It would not have been possible, without the data on parks spending gathered independently by the Parks Action Group. While the recommendations for improving the quality of the official data are based on, and directed specifically at, parks, the conclusions are likely to apply across the whole set of data.

We have six recommendations.

1. The MHCLG and the LGA should re-affirm the importance of the Revenue Outturn data and their commitment to it. They should remind local authorities of their crucial role in creating and maintaining this set of data.
2. In the first instance, individual local authorities are responsible for achieving the consistency over time about how spending is recorded that is vital to a study such as this. Local authorities should immediately review the practices they use when completing the RO return to ensure consistency from one year to the next. This review suggests there is considerable scope for improvement.

²² Keep Britain Tidy (2016) Evidence submitted to the House of Commons Communities and Local Government Committee. Available from: <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/communities-and-local-government-committee/public-parks/written/39002.html>

3. We support the recommendation of the note being developed with the LGA (“Proposed Changes to the RO5 Form to more accurately reflect spending on parks”) regarding the shift of items from line RO128 to RO130. However, it is not just a question of making sure that RO130 contains “all” the spending on parks but also that it does *not* contain other spending that may in some ways be connected to it (e.g. maintenance of roadside verges). Ring-fencing RO130 by renaming “parks and open spaces, including play areas” (another recommendation within that note), must be accompanied by a direction as to where items which customarily have been recorded in RO130 but no longer belong there are to be recorded.
4. We recommend that a system of supporting notes be appended to the RO data by which local authorities can flag when there has been a substantive change in the functions that are being recorded in RO130 (and elsewhere). Forewarned, those using the data can then decide whether their analysis needs to take account of it. As part of the process of ensuring consistency going forward (recommendation 2), we suggest that local authorities create such supporting notes for the past two or three years.
5. We recommend that around the point it is published, the RO130 data should be subject to some central checks along the lines adopted in this paper to identify anomalies. As a minimum, this information could be included as part of the supporting notes (recommendation 4). The LGA, CiPFA, APSE and others could consider what other spending lines might merit similar attention to that devoted to parks.
6. The MHCLG and the LGA should seek the advice of the Office for National Statistics on the question of how to improve this dataset and secure its future as a data asset of high quality.