



Institute for Fiscal Studies

Report chapter

Luke Sibieta

2020 Annual report on education spending in England: schools



Economic
and Social
Research Council

3. Schools

School spending covers pupils in state-funded schools aged 5–16, as well as pupils aged 16–19 in school sixth forms. In 2019–20, total spending on schools in England represented about £51 billion (in 2020–21 prices), accounting for 17% of total public service spending in England.¹

Following large increases over the 2000s, spending per pupil has fallen since 2010–11, the first cuts to school spending per pupil since the mid 1990s. Whilst total spending was largely protected in real terms, a more than 10% increase in the pupil population meant that spending per pupil fell in real terms. The present government has sought to reverse this picture by providing a three-year settlement for school spending, which will provide a £7.1 billion increase in spending in cash terms in 2022–23 compared with spending in 2019–20. Section 3.1 sets these plans in context by showing how spending per pupil in England has evolved over time.

The government has committed to ‘level up’ poorer regions of the country, and schools seem likely to be a major focus of this commitment. Narrowing the achievement gap between children from rich and poor families has long been a priority for policymakers across the political spectrum. To inform these priorities and challenges, Section 3.2 shows how spending per pupil has changed for schools facing different levels of deprivation over the last 20 years, and how changes under the government’s new National Funding Formula are likely to alter these patterns.

Section 3.3 shows how school spending per pupil has changed over the last decade for the four nations of the UK.

The closure of schools during lockdown in the COVID-19 pandemic will create immense challenges for schools. Section 3.4 describes the scale of these challenges, including the likely widening of educational inequalities. It also sets out the catch-

¹ Total school spending as calculated in Figure 3.1 and quoted as a percentage of total resource departmental expenditure limits for 2019–20 (excluding Wales, Scotland and Northern Ireland) as recorded in PESA 2020 (<https://www.gov.uk/government/statistics/public-expenditure-statistical-analyses-2020>).

up and support activities already announced by the government for schools in England. We analyse the extent to which these plans are targeted at the likely challenges resulting from the COVID-19 pandemic, as well as pre-existing challenges such as the teacher labour market and the state of school buildings.

Key findings

- 1 School spending per pupil in England fell by 9% in real terms between 2009–10 and 2019–20. This represents the largest cut in over 40 years, but came on the back of a significant increase in spending per pupil of over 60% during the 2000s.
- 2 Over the 2010s, cuts in spending per pupil were lower in Wales (5%), but similar in Northern Ireland (10%). In contrast, spending per pupil in Scotland rose by 5% in real terms over the 2010s, reflecting extra funding to pay for increases in teacher pay totalling more than 10% over 2018 and 2019. Spending per pupil is highest in Scotland (£7,300), of similar levels in Wales and England (£6,100) and lowest in Northern Ireland (£5,800).
- 3 The government has allocated an extra £7.1 billion for schools in England through to 2022–23. This will increase spending per pupil by 9% in real terms between 2019–20 and 2022–23 (as measured against expected general inflation) and near enough reverse past cuts. If we account for expected increases in teacher pay, the real-terms increase in spending per pupil will be lower, at 6%. In both cases, school spending per pupil in 2022–23 would be no higher in real terms than in 2009–10.
- 4 Secondary school spending per pupil in England (£6,000) was about 16% higher than in primary schools (£5,200) in 2019–20. This is down from a secondary/primary funding difference of 30% in 2010–11, partly reflecting large cuts to school sixth-form funding. It also continues a long-run trend, with the funding difference down from over 50% during the 1980s. Whilst empirical evidence shows high benefits to spending at younger ages, it is not clear evidence supports such a dramatic shift.

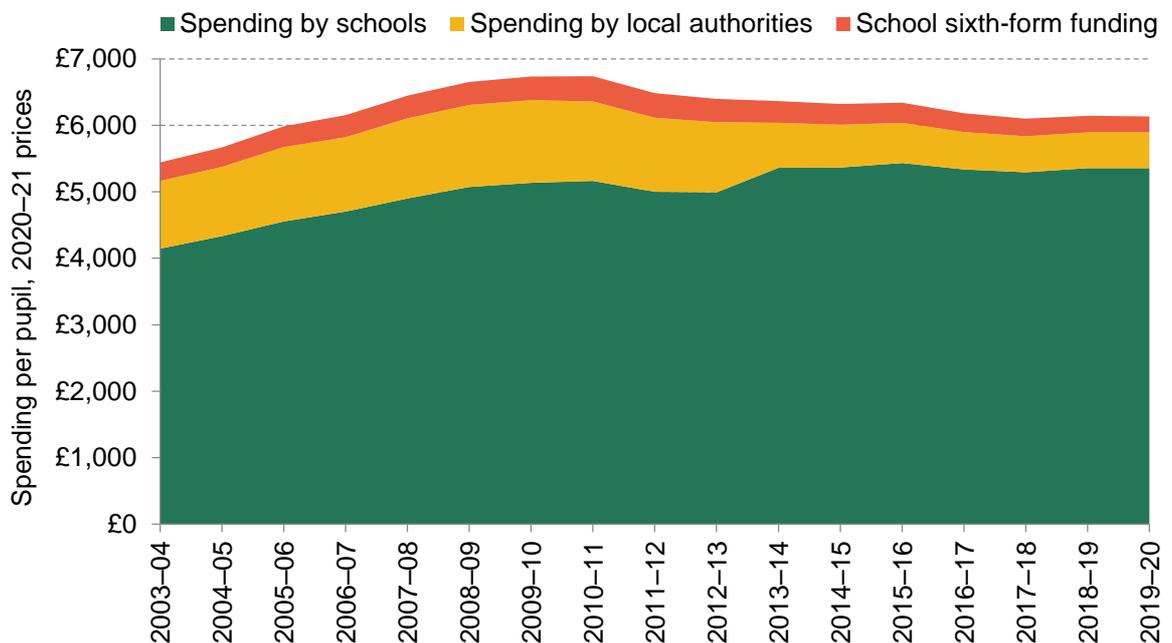
- 5 The school funding system in England provides greater levels of spending to more deprived schools to help narrow the achievement gap between rich and poor. During the 2000s, the funding advantage enjoyed by the most deprived schools grew from 20–25% in 2000–01 to 35% by 2010–11.
- 6 Despite the introduction of the Pupil Premium in 2011, the deprivation funding premium shrank back to 25% in 2018–19. This can be partly explained by faster falls in deprivation inside London and a school funding system that did not adjust to such changes. In the long run, the new National Funding Formula should ensure the funding system is more responsive. However, the new formula will deliver funding increases of 3–4 percentage points less to schools in poorer areas up to 2021. We also see faster falls in spending per pupil of 13% for deprived secondary schools outside London since 2010–11. These patterns run counter to the objective of using school funding to ‘level up’ poorer regions.
- 7 Given lost schooling and a likely widening of educational inequalities during lockdown, the government has announced a range of measures to help schools. These include a one-off extra £80 per pupil aged 5–16 and a national tutoring programme. Whilst the focus on tutoring is well aligned with empirical evidence, the plans are modest compared with the likely reductions in skills. Only the National Tutoring Programme is targeted at more disadvantaged pupils, making it harder to address the inequalities that have widened during lockdown.
- 8 Faster falls in spending per pupil over the last decade, slower increases under the National Funding Formula, a likely widening of educational inequalities and higher costs associated with higher teacher starting salaries, given that deprived schools are more likely to employ new teachers, all provide a case for greater targeting of funding to more deprived schools.

3.1 Trends in spending per pupil in England

Figure 3.1 shows total school spending per pupil aged 3–19 between 2003–04 and 2019–20 broken down into three different components:

- **Funding allocated to schools.** This includes funding directly allocated to schools and early years providers. Early years providers are included because primary school budgets include funding for nursery pupils in some years.
- **Local authority spending.** This includes central spending on a range of services for pupils with special educational needs, admissions, transport, educational psychology and other services provided to schools and pupils by local authorities.

Figure 3.1. Total school spending per pupil by component (2020–21 prices)



Note and source: See Appendix B. HM Treasury GDP deflators, June 2020 (<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-june-2020-quarterly-national-accounts>) and Office for Budget Responsibility, *Fiscal Sustainability Report: July 2020* (https://cdn.obr.uk/obr_fsr_july_2020.pdf).

- **Sixth-form funding.** Funding provided to schools for pupils aged 16–19. We include sixth-form funding for practical reasons as this is often included within school expenditure figures. Wider spending on 16–19 education, including spending on further education and sixth-form colleges, is discussed in Chapter 4.

In 2003–04 (the earliest year for which we can produce this consistent set of figures), spending directly allocated to schools represented £4,100 per pupil (in 2020–21 prices) or about 76% of total school spending per pupil, which stood at £5,400 per pupil. The rest represented spending by local authorities (about £1,000 per pupil) and sixth-form funding (about £275 across all pupils aged 3–19 or about £5,100 per pupil in school sixth forms).

As summarised in Table 3.1, over the six years up to 2009–10, each component rose by a similar amount – roughly a quarter – in real terms. As such, the share of total spending directly allocated to schools remained at around 76%.

Table 3.1. Summary of levels and changes in different components of total school spending per pupil (2020–21 prices)

	Spending by schools	Spending by local authorities	School sixth-form spending	Total spending
2003–04	£4,144	£1,022	£276	£5,442
<i>Change</i>	<i>£989</i>	<i>£225</i>	<i>£77</i>	<i>£1,292</i>
<i>Real-terms growth</i>	<i>24%</i>	<i>22%</i>	<i>28%</i>	<i>24%</i>
2009–10	£5,133	£1,247	£354	£6,734
<i>Change</i>	<i>£223</i>	<i>–£707</i>	<i>–£114</i>	<i>–£599</i>
<i>Real-terms growth</i>	<i>4%</i>	<i>–57%</i>	<i>–32%</i>	<i>–9%</i>
2019–20	£5,355	£540	£239	£6,135

Note and source: See Appendix B.

After 2009–10, the different components evolved very differently. Per-pupil spending by schools rose by around 4% in real terms or about £220. This increase is larger than initial plans for a real-terms freeze in school spending per pupil (including spending on the Pupil Premium), which is the result of a combination of factors. First, actual inflation turned out to be over 3% lower than expected between 2010–11 and 2014–15, leading to a higher settlement in real terms than initially anticipated. Second, after 2011–12, a range of responsibilities and associated funding moved from local authorities to schools themselves. Analysis by Sibieta (2015) suggests this transfer of funding equated to about 4% of school budgets. Third, these figures also include growth in early years spending reported in Chapter 2. Total spending on all pupils aged 3–19 grew by 1% in real terms between 2009–10 and 2019–20, but fell by about 2% if we exclude all reported early years spending.

In contrast, local authority spending on services fell by 57% or about £700 per pupil in real terms between 2009–10 and 2019–20. Some of this effect is mechanical, reflecting a transfer of funding and responsibilities from local authorities to both academies and maintained schools. School sixth-form funding per pupil fell by about 32%. This is higher than the nearly 25% reduction in sixth-form funding per student quoted in Chapter 4 as the figure here relates to sixth-form funding per pupil aged 3–19 (and therefore includes the effect of falls in the number of pupils aged 16–19).

As a result of these contrasting trends, total school spending per pupil fell by about 9% or about £600 per pupil between 2009–10 and 2019–20. Much of this fall happened prior to 2015–16, with a fall of 6% in real terms between 2009–10 and 2015–16 and a further fall of 3% between 2015–16 and 2019–20. The falls between 2009–10 and 2015–16 are entirely driven by falls in local authority spending and school sixth-form funding. The 9% fall is larger than the 8% quoted in last year's report due to changes in inflation, pupil numbers and incorporation of actual data for 2019–20.

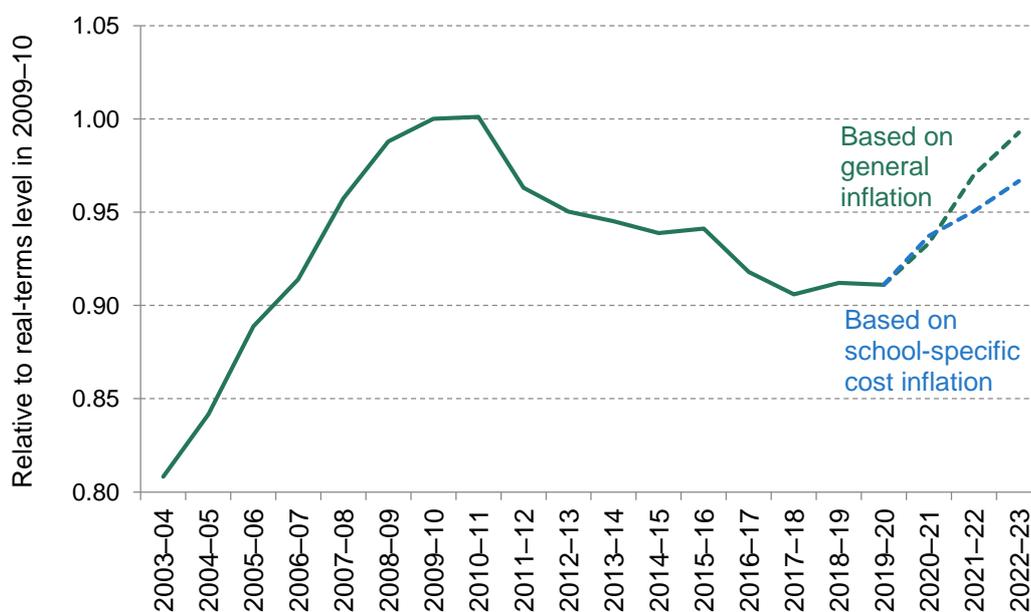
Looking over the long run, these changes leave total school spending per pupil about 13% higher in real terms than at the start of our series in 2003–04.

These figures represent the best measure of the change in total public spending available for school services over this period. They include the effect of cuts to local authority services, many of which schools will have had to fund from their

existing budgets, and cuts to school sixth-form funding, which will have put pressure on secondary school budgets. If we exclude school sixth-form funding, school spending per pupil aged under 16 has fallen by 8% in real terms between 2009–10 and 2019–20.

In the 2019 Spending Round, the government announced a new three-year settlement for day-to-day spending on schools in England through to 2022–23. This included a cash-terms rise in the schools budget (covering pupils aged 5–16) of £7.1 billion between 2019–20 and 2022–23.

Figure 3.2. Total school spending per pupil (actual up to 2019–20, projected to 2022–23), 2009–10 = 1



Note and source: HM Treasury, *Spending Round 2019*

(<https://www.gov.uk/government/publications/spending-round-2019-document>), HM Treasury GDP deflators, June 2020 (<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-june-2020-quarterly-national-accounts>) and Office for Budget Responsibility, *Fiscal Sustainability Report: July 2020*

(https://cdn.obr.uk/OBR_FSR_July_2020.pdf). Forecasts all assume that early years and sixth-form funding per pupil aged 3–19 follows the same path as school spending per pupil. School-specific cost inflation assumes that teacher expenditure grows by 3% per year, other staff pay grows by economy-wide average earnings growth and non-staff costs grow in line with the GDP deflator, the latter two as projected in the OBR's July Fiscal Sustainability Report. See Appendix B for further details on school spending up to 2019–20.

After accounting for expected growth in pupil numbers of just under 2% between 2019–20 and 2022–23, we project that spending per pupil will grow by 9% in real terms between 2019–20 and 2022–23. This would be the first sustained growth in school spending per pupil for over a decade. As shown in Figure 3.2, this would near enough reverse past cuts and take total spending per pupil back to about 1% below its level in 2009–10.

These figures are based on economy-wide inflation as captured by the GDP deflator. As argued in Box 3.1, the GDP deflator provides the best measure of inflation for making consistent comparisons over different areas of spending. Over the last decade, real-terms changes in spending per pupil are similar whether using the GDP deflator or a measure of school-specific inflation (with school-specific inflation below general inflation up to 2015 and above it thereafter). However, general inflation and school-specific inflation can be very different in the short run, particularly during periods of economic uncertainty and when the government chooses to make substantial changes to teacher pay.

At present, general inflation is forecast to be close to 0% in 2021–22. This is likely to be significantly below planned increases in teacher pay, which is due to rise by about 3% per year, in line with a government commitment to increase starting salaries to £30,000 and deliver pay rises for existing teachers too. If we calculate a measure of school-specific cost growth, the measure of inflation faced by schools could be closer to 8% between 2019–20 and 2022–23 (as opposed to 6% as captured by general inflation). Based on school-specific inflation, the expected real-terms growth in spending per pupil between 2019–20 and 2022–23 is 6% (instead of 9% based on general inflation). As shown in Figure 3.2, this would leave spending per pupil about 3% below its 2009–10 level.

Whilst the planned increases in school spending per pupil represent a clear turnaround as compared with recent trends, 1% and 3% falls in spending per pupil over 13 years would both represent a significant squeeze on school resources as compared with recent history. The previous lowest growth over a 13-year period was 17% for secondary schools between 1987–88 and 2000–01 (see Figure 3.3 later).

Box 3.1. Adjusting for inflation

In most of our analysis, we adjust for inflation using the GDP deflator, which captures economy-wide inflation. This allows for consistent and clear comparisons across different areas of education spending, and with other areas of public spending, over long periods.

Such a measure might, however, under- or over-estimate the growth in specific costs faced by schools and real-terms changes in spending if school-specific costs are evolving at a different rate from overall inflation. The most likely reason for this to occur is if school staff costs are growing by more or less than inflation. In this case, however, it is important to acknowledge that above-inflation increases in staff pay could translate into increases in the quantity and quality of school resources.

Ideally, one would calculate real-terms changes in spending per pupil based on general inflation and based on school-specific costs. This is likely to be possible over short periods, but is likely to prove more difficult over the long run due to a lack of necessary data.

In our 2019 annual report on education spending in England, we compared recent real-terms changes in spending per pupil calculated on the basis of economy-wide inflation and school-specific costs (Britton, Farquharson and Sibieta, 2020). This showed that between 2010–11 and 2015–16, spending per pupil fell by 5.5% in real terms using the GDP deflator, but by the lower figure of 4.5% using school-specific costs. The lower growth in school-specific costs reflects the squeeze on public sector pay implemented between 2010 and 2015. However, between 2015–16 and 2019–20, spending per pupil fell by more adjusting for school-specific costs (4.2%) than when adjusting for economy-wide inflation (3.4%). This reflects faster growth in school-specific costs due to increases in public sector pay and employer on-costs (employer pension and National Insurance contributions). Taking the period as a whole, the real-terms fall in spending per pupil was very similar using the GDP deflator (8.7%) and school-specific costs (8.5%).

This illustrates that over the long run, the GDP deflator can provide a good approximation to school-specific costs in calculating real-terms changes in spending per pupil. This is likely to be less true over the short run. We therefore show all real-terms changes using the GDP deflator, but indicate where school-specific costs might grow by more or less in the short run due to policy decisions.

These figures exclude the £1.5 billion cost of compensation for schools for increases in employer contributions to the Teachers' Pension Scheme. We exclude this grant as it is deliberately intended to reflect the higher costs schools will face as a result of these higher employer pension contributions. In contrast to the effects of the Teachers' Pay Grant, actual or expected pension benefits for teachers are unaffected. However, the higher contributions are calculated on the basis of a higher future expected cost of the Teachers' Pension Scheme as calculated in the quadrennial review. One could argue that this higher cost translates into a greater value of pension benefits for teachers.

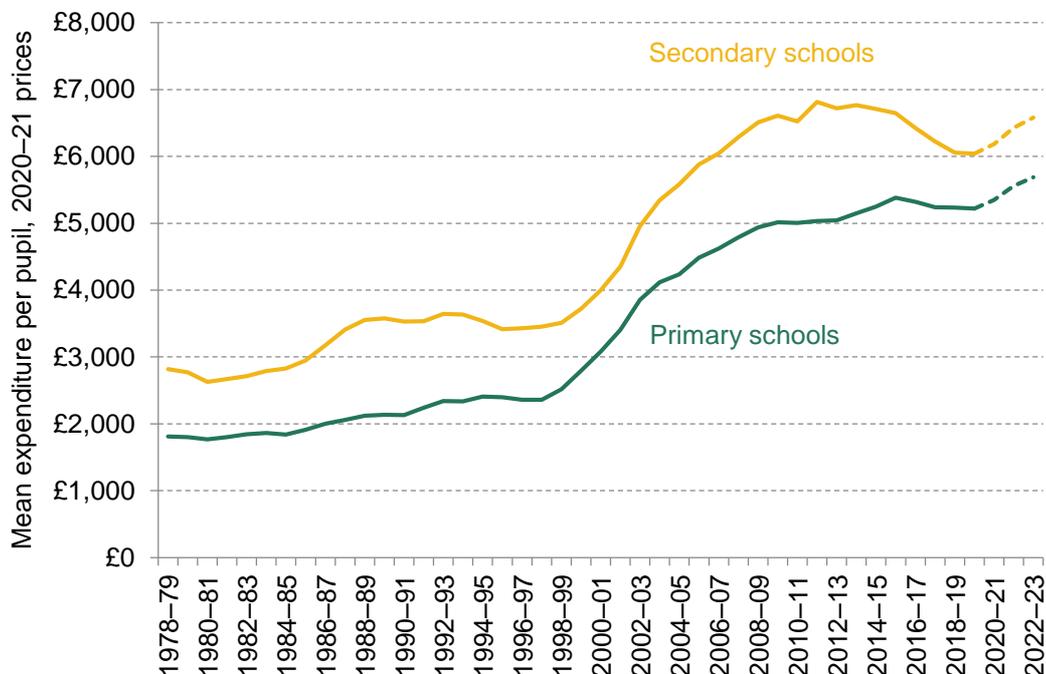
If one included the £1.5 billion grant for employer pension contributions, school spending per pupil would increase by about 3% in 2022–23. This would leave spending per pupil about 2% higher in real terms than in 2009–10. However, even including the pension contributions grant, spending per pupil will have still seen a significant squeeze in historical terms between 2009–10 and 2022–23.

Primary and secondary school spending per pupil

Figure 3.3 shows our estimates for the level of primary and secondary school spending per pupil in England over time (in 2020–21 prices), together with projections up to 2022–23 based on the 2019 Spending Round and economy-wide inflation. The data we use to calculate these figures allow us to track spending per pupil further back in time. Here, our definition of school spending is the sum of the amount of spending undertaken by individual schools, which will include expenditure on sixth-form students. It excludes spending undertaken directly by local authorities and spending on special schools.

These figures differ slightly from those presented in our education spending report in previous years for two main reasons. First, we have made use of extra data for more recent years (2015–16 to 2018–19) on spending by individual schools as opposed to planned levels of total funding from central government. This provides a more accurate picture of actual spending by schools. Second, we have slightly adjusted methods for earlier years to ensure consistency with more recent data, which leads to higher levels of spending per pupil during the 2000s. Further details and a comparison with our previous calculations are provided in Appendix B.

Figure 3.3. Spending per pupil in primary and secondary schools (2020–21 prices)



Note and source: See Appendix B for a full list of sources and methods for school spending. HM Treasury GDP deflators, June 2020 (<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-june-2020-quarterly-national-accounts>) and Office for Budget Responsibility, *Fiscal Sustainability Report: July 2020* (https://cdn.obr.uk/OBR_FSR_July_2020.pdf).

As can be seen, spending per pupil has evolved in a number of distinct phases:

- Modest growth over the 1980s and 1990s.** During the 1980s and 1990s, primary school spending per pupil grew by 2.2% per year, on average, in real terms and secondary school spending per pupil grew by slightly less (around 1.5% per year, on average). There was also a fall of 6% in real terms in secondary school spending per pupil between 1992–93 and 1995–96.
- Rapid growth over the 2000s.** From 1999–2000 onwards, spending per pupil grew rapidly, with growth of 6% per year in real terms for primary and secondary schools over the 2000s. This led primary school spending per pupil to rise from £2,800 per pupil in 1999–2000 to reach £5,000 by 2009–10, whilst secondary school spending per pupil grew from £3,700 to £6,600 per pupil.
- Real-terms protection between 2010 and 2015.** Under the coalition government, existing school spending per pupil was frozen in cash terms from

2010–11 onwards. The Pupil Premium was created on top of this settlement and amounted to just under £2.5 billion by 2015–16. In 2010, this settlement was expected to lead to a constant level of spending per pupil in real terms through to 2015–16 (Chowdry and Sibieta, 2011). However, Figure 3.3 shows that spending per pupil actually grew by 7% in real terms in primary schools and was largely unchanged in real terms in secondary schools between 2009–10 and 2015–16. This would equate to total real-terms growth of about 3–4% across primary and secondary schools.

- There are a number of reasons why school spending grew in real terms over this period and why it grew faster in primary schools. First, actual inflation turned out to be lower than originally expected in 2010, which increased the real-terms value of the overall settlement. Second, funding moved to primary and secondary schools as maintained schools and academies took on responsibility for services previously provided by local authorities. Figure 3.2 accounts for this by combining school and local authority spending. Related to this point, Figure 3.3 shows an apparent increase in 2011–12, which can be largely explained by inconsistencies in the data. Third, the Pupil Premium was gradually introduced at a higher rate in primary schools, which led to larger increases in spending in primary schools. Fourth, secondary schools will have further lost out from reductions to school sixth-form funding (see Chapter 4 for further details).
- **Real-terms falls since 2015** – Between 2015–16 and 2017–18, school spending per pupil continued to be frozen in cash terms, though it was largely protected in real terms from 2017–18 onwards. This translated into a 3% real-terms fall in primary school spending per pupil and a 9% real-terms fall in secondary school spending per pupil. The faster fall in secondary school spending can be partly accounted for by the continued falls in school sixth-form funding. The cut to primary school spending per pupil is the first real-terms cut in primary school spending since at least the 1970s. The cuts to secondary school spending per pupil are larger than the last real-terms cut to secondary school spending, in the mid 1990s, during which time spending per pupil fell by 6% in real terms.
- These cuts will leave secondary school spending per pupil about 9% lower in real terms than a decade earlier in 2009–10. In contrast, primary school spending per pupil will still be about 4% higher as a result of the faster growth that took place between 2009–10 and 2015–16.
- **Return of growth up to 2022.** As a result of the 2019 Spending Round, we project that spending per pupil will grow by 9% in real terms between 2019–20

and 2022–23 (as measured against economy-wide inflation). If we assume equal growth across primary and secondary schools, spending per pupil in primary schools in 2022–23 will be 13% higher in real terms than in 2009–10, but largely unchanged in secondary schools.

The expected average growth in spending per pupil between 2019–20 and 2022–23 is about 3% per year. This is identical to the long-run average growth in spending per pupil between the start of our consistent time series in the late 1970s through to 2009–10 before cuts began to take effect. However, expected future growth of 3% per year is above the long-run average observed up to 1999–2000 (2.1% per year for primary schools and 1.3% for secondary schools).

Looking over the long run, primary school spending per pupil was about 70% higher in 2019–20 than in 2000–01, and secondary school spending per pupil was about 50% higher. These figures are likely to be over-estimates as they partly reflect transfers of responsibilities and funding from local authorities to schools.

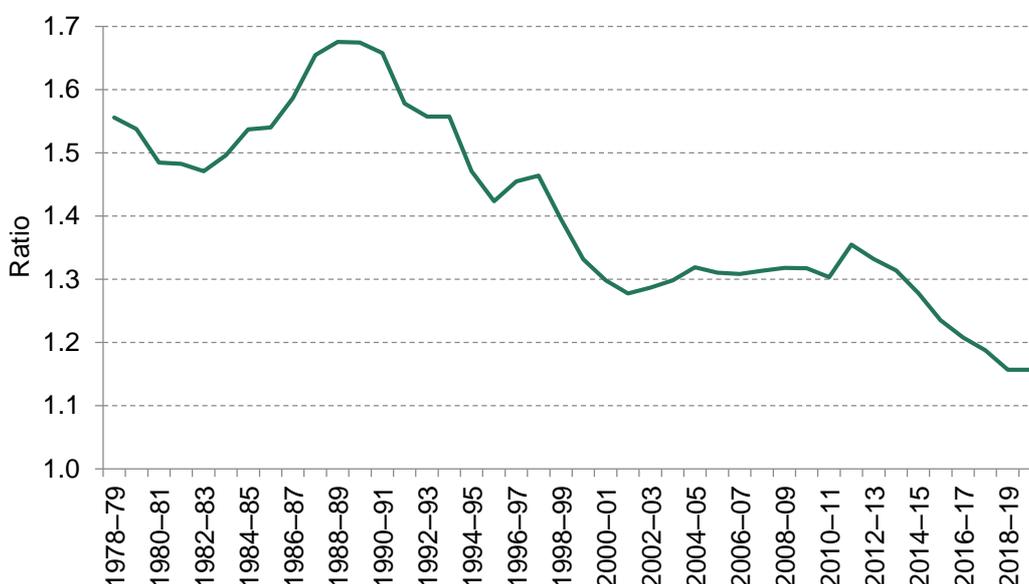
Perhaps one of the biggest (and under-appreciated) long-run shifts in school spending over the last few decades has been the increase in primary school spending relative to secondary schools. This was already evident from recent trends, with a 9% real-terms cut in secondary school spending per pupil between 2009–10 and 2019–20, compared with a 4% rise for primary schools.

Figure 3.4 shows that this continues a long-run pattern. Following an increase over the mid-1980s, spending per pupil was about 67% higher in secondary schools than in primary schools at the end of the 1980s. This then fell to a gap of about 30% by the end of the 1990s. The ratio was then largely constant over the 2000s, but has since fallen to about 16% in the most recent year. This is the lowest gap between primary and secondary schools since the late 1970s. Given a ratio of 1.55 in the late 1970s, the current ratio of 1.16 is probably a lot lower than that seen before the 1970s too (unless there were much larger increases in secondary school spending relative to primary school spending in earlier years).

This large reduction in the secondary/primary funding ratio is very striking, with the trends up to 2013 already noted elsewhere (Belfield and Sibieta, 2016). The further falls since 2013 represent a new finding, but a continuation of the long-run trend. Part of this fall in the secondary/primary funding ratio will have been driven by larger cuts to school sixth-form funding. However, it is not clear that

policymakers intended such a large shift in resources. Empirical evidence certainly suggests that earlier school investments can be more productive than later investments (Cunha, Heckman and Schennach, 2010; Nicoletti and Rabe, 2018; Johnson and Jackson, 2019). However, such evidence does not point to the need for such a large shift in spending. Further research is needed to understand the implications of this change in the profile of spending across primary and secondary schools.

Figure 3.4. Ratio of secondary school spending to primary school spending per pupil over time



Note: See Appendix B for a full list of sources and methods for school spending.

3.2 Differences in spending by levels of deprivation

In this section, we move beyond average spending to examine differences in spending per pupil by levels of deprivation. This represents a key consideration in understanding trends in school spending given the government's focus on 'levelling up' poorer areas of the country. Recent evidence also suggests that school spending can have a larger positive effect on the long-run outcomes of children from poorer families (Jackson, Johnson and Persico, 2016; Jackson, 2018; Gibbons, McNally

and Viarengo, 2018). This suggests that providing higher levels of spending to schools facing higher levels of deprivation could be an important tool in narrowing the achievement gap between children from rich and poor families.

Such differences are also important to consider in light of the ongoing COVID-19 pandemic. Most evidence suggests that educational inequalities between children from rich and poor families are likely to have widened during lockdown (DELVE Initiative, 2020). Understanding trends in spending per pupil by levels of deprivation should therefore provide an indication as to the extent to which schools facing greater levels of deprivation are well prepared and resourced for the challenges ahead.

Table 3.2 shows the level of spending per pupil for primary and secondary schools in five equally sized groups or quintiles of deprivation based on the share of pupils eligible for free school meals in each individual year. The definition of school spending is the same as in Figure 3.3, i.e. excluding spending by local authorities but including sixth-form funding. This is shown for 2000–01, 2009–10 and 2018–19, together with real-terms changes over time (all in 2020–21 prices). Figure 3.5 shows the level of spending per pupil relative to the least deprived quintile and Figure 3.6 shows the level of spending relative to that seen in 2009–10, both over time.

Spending per pupil grew significantly across all quintiles over the 2000s, but by the most amongst schools with the most deprived intakes. Spending per pupil grew by 69% in real terms amongst the most deprived primary schools and by 56% amongst the least deprived primary schools. As a result, spending per pupil reached over £6,000 amongst the most deprived primary schools in 2009–10, compared with £4,500 amongst the least deprived. This created a deprivation funding premium of about £1,500 per pupil or 34% in 2009–10, which compares with differences of £650 or 23% in 2000–01.

Note and source to Table 3.2

Spending based on methods and data described in Appendix B. Share of pupils eligible for free school meals calculated using LEASIS 1993–2009 as per Belfield and Sibieta (2016) and data downloaded from annual performance tables for 2010–18 (<https://www.compare-school-performance.service.gov.uk/>). HM Treasury GDP deflators, June 2020 (<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-june-2020-quarterly-national-accounts>) and Office for Budget Responsibility, *Fiscal Sustainability Report: July 2020* (https://cdn.obr.uk/OBR_FSR_July_2020.pdf).

Table 3.2. Spending per pupil by quintile of eligibility for free school meals (2020–21 prices)

a) Primary schools

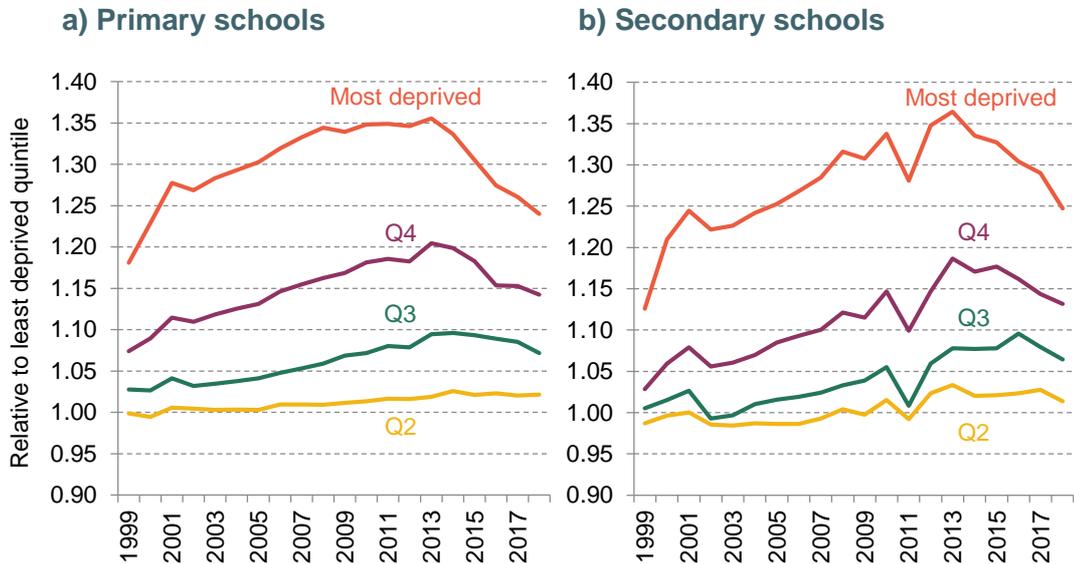
	Q1 (least deprived)	Q2	Q3	Q4	Q5 (most deprived)
2000–01	£2,886	£2,870	£2,962	£3,144	£3,546
<i>Change</i>	£1,602	£1,670	£1,835	£2,101	£2,464
<i>Real-terms growth</i>	56%	58%	62%	67%	69%
2009–10	£4,488	£4,540	£4,797	£5,244	£6,011
<i>Change</i>	£291	£343	£326	£216	–£84
<i>Real-terms growth</i>	6%	8%	7%	4%	–1%
2018–19	£4,779	£4,883	£5,123	£5,460	£5,927

b) Secondary schools

	Q1 (least deprived)	Q2	Q3	Q4	Q5 (most deprived)
2000–01	£3,787	£3,774	£3,846	£4,012	£4,581
<i>Change</i>	£2,266	£2,264	£2,443	£2,739	£3,333
<i>Real-terms growth</i>	60%	60%	64%	68%	73%
2009–10	£6,053	£6,038	£6,288	£6,751	£7,914
<i>Change</i>	–£500	–£408	–£376	–£466	–£988
<i>Real-terms growth</i>	–8%	–7%	–6%	–7%	–12%
2018–19	£5,553	£5,630	£5,912	£6,284	£6,926

Note and source: See previous page.

Figure 3.5. Spending per pupil by quintile of eligibility for free school meals, relative to least deprived quintile



Note and source: See Table 3.2.

A similar pattern can be seen for secondary schools, with 73% growth in spending per pupil amongst the most deprived secondary schools and 60% growth amongst the least deprived schools. As a result, spending per pupil stood at about £7,900 amongst the most deprived secondary schools in 2009–10, about £1,900 or 31% more than amongst the least deprived schools. This compares with a deprivation funding premium of £800 or 21% in 2000–01.

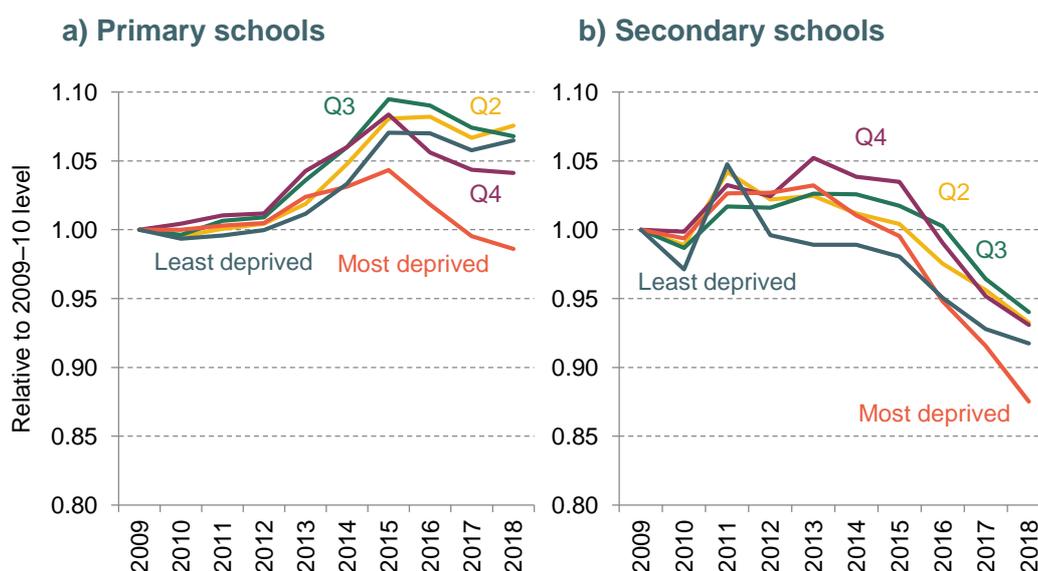
There was therefore a very substantial increase in the degree to which school funding was targeted at more deprived schools over the 2000s, which has been widely documented (West, 2009; Belfield and Sibieta, 2016). In previous work, we have shown that this was largely driven by a high use of specific grants or direct payments from central government targeted at more disadvantaged schools, such as the School Development Grant, Standards Funding and Ethnic Minority Achievement Grant (Belfield and Sibieta, 2016). These grants were then folded into the main schools grant in 2011 (the Dedicated Schools Grant), with local authorities explicitly allowed to take account of previous allocations in order to preserve the higher funding for more deprived schools.

Between 2010 and 2015, existing school spending per pupil was largely frozen in cash terms, with the new ‘Pupil Premium’ introduced on top of this. The Pupil

Premium represents an extra payment to schools for pupils from disadvantaged backgrounds. This effectively continues the past trend of providing more funding to schools with more disadvantaged intakes. It was gradually extended over time and increased at a higher rate in primary schools. By 2015–16, it stood at an extra £1,320 for pupils ever eligible in the previous six years for free school meals in primary schools and £935 in secondary schools (higher rates are used for children in care and a smaller premium is available for children whose parents are in the armed forces). These rates have since been largely frozen in cash terms, with only a £20–25 increase in 2020–21.

Despite the introduction of the Pupil Premium, Figure 3.6 shows that it was not the most deprived primary schools that experienced the largest increases in spending over the period from 2010 to 2015. Instead, it was schools in quintiles 3 and 4 (schools with average or just above average levels of spending) which experienced the largest increases in spending per pupil (about 8–9% in real terms, as compared with 4% amongst the most deprived schools). A similar pattern can be seen for secondary schools, with quintiles 3 and 4 seeing slightly larger increases in funding than the most deprived schools.

Figure 3.6. Spending per pupil by quintile of eligibility for free school meals, relative to 2009–10 level



Note and source: See Table 3.2.

For both primary and secondary schools, the most deprived and least deprived schools saw similar changes in spending per pupil between 2009–10 and 2014–15. As a result, the deprivation funding premium remained at around 30–35% over this period. This is a surprising finding as one would have expected the Pupil Premium to have increased funding for more deprived schools by the most, all other things being equal. We investigate this surprising outcome in the next subsection.

From 2015 onwards, an even more striking pattern has emerged. Since 2014–15, spending per pupil has fallen by 4% amongst the most deprived primary schools as compared with a rise of 3% amongst the least deprived primary schools. Amongst secondary schools, the most deprived schools saw a 13% real-terms fall in spending per pupil between 2014–15 and 2018–19, which compares with a 7% fall amongst the least deprived schools.

Looking at the whole period since 2009–10, spending per pupil has fallen by the largest amount amongst the most deprived primary and secondary schools. Most quintiles of primary schools saw small increases in spending per pupil, including a 6% rise for the least deprived schools, which contrasts with a small fall of 1% for the most deprived primary schools. The least deprived secondary schools saw falls in spending per pupil (8%), but these were less than those seen for the most deprived schools, which saw a 12% real-terms fall in spending per pupil between 2009–10 and 2018–19.

The result is that the deprivation funding premium fell significantly. It remained at about 30–35% between 2009–10 and 2014–15, before then falling to about 25% in 2018–19. This takes the funding premium back to the levels in the early 2000s. Indeed, the level of spending per pupil for the most deprived primary schools was about the same in 2018–19 as it was in 2009–10, whilst spending per pupil in the most deprived secondary schools was about the same level in 2018–19 as it was in 2005–06. This represents a significant reversal of the focus on more deprived schools up to 2014–15.

Explanations

What are the likely explanations for this significant shift in the pattern of school spending by deprivation? As we have already indicated, the deprivation funding premium was relatively constant at about 30–35% between 2009–10 and 2014–15, which is surprising in itself given that the Pupil Premium was introduced and

increased. There were then faster falls in spending per pupil amongst more deprived primary and secondary schools after 2014–15, which reduced the deprivation funding premium to about 25%.

The direct implication is that other sources of funding became less focused on the most deprived schools over time. Unfortunately, the highly complex nature of the school funding system and incomplete data over much of this period make it near impossible to undertake comprehensive analysis. However, we can assess the plausibility of a number of potential explanations:

- **Cash freeze in the Pupil Premium.** School spending per pupil would be only about 0.5–0.6% higher in the most deprived schools relative to the least deprived ones if the Pupil Premium had kept pace with inflation.² Figure 3.6 shows that spending per pupil fell by 7% more amongst the most deprived primary schools since 2014–15 and by about 6% more amongst the most deprived secondary schools as compared with the least deprived schools. A cash freeze in the Pupil Premium can therefore only explain a small amount of the faster fall in spending per pupil amongst the most deprived schools.
- **Introduction of simpler local funding formulae within local authorities.** In 2013–14, all local authorities were obliged to introduce simpler local funding formulae.³ The Department for Education set out a number of factors, with local authorities setting the values applying to all state-funded schools in their area. The fact that this change pre-dates the larger falls in spending for more deprived schools after 2014–15 suggests that the introduction of these formulae is unlikely to be a major explanation in itself. Furthermore, analysis of these formulae suggests that the share of funding allocated on the basis of deprivation has remained at around 8% of total spending between 2014–15 and 2018–19.⁴

² If Pupil Premium rates had been uprated in line with economy-wide inflation since 2014–15, they would have been about £80–£90 higher than the actual rates used in 2018–19. Given a difference of about 40% in the share of pupils ever eligible for free school meals between the most and least deprived schools, school spending per pupil would be about 0.5–0.6% higher in the most deprived schools relative to the least deprived ones if the Pupil Premium had kept pace with inflation.

³ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/244364/school_funding_reform_-_final_2013-14_arrangements.pdf.

⁴ Authors' calculations using Department for Education schools block funding formulae for 2014–15 (<https://www.gov.uk/government/publications/schools-block-funding-formulae-2014-to-2015>) and 2018–19 (<https://www.gov.uk/government/publications/schools-block-funding-formulae-2018-to-2019>).

- **Changing geography of deprivation across local authorities.** The geography of deprivation was also changing over this period, with reduced levels of deprivation amongst the most deprived schools and declining levels of deprivation in London in particular. This could have reduced actual funding received by the most deprived schools for deprivation (given lower levels) and led deprived schools to be less likely to be located in London (where spending per pupil is higher due to London weighting for staff salaries).⁵
- Figure 3.7 seeks to address this issue by showing the change in spending per pupil between 2010–11 and 2018–19 amongst schools by contemporary quintile and by quintiles fixed at 2010–11 levels. Results are only shown for Q1 (least deprived) and Q5 (most deprived) to make the changes easier to see. The figure shows that when using 2010 quintiles instead of contemporary quintiles, the differences in growth between the least deprived and most deprived falls significantly (from 8.6% to 3.1% for primary schools, and from 6.4% to –0.7% for secondary schools).

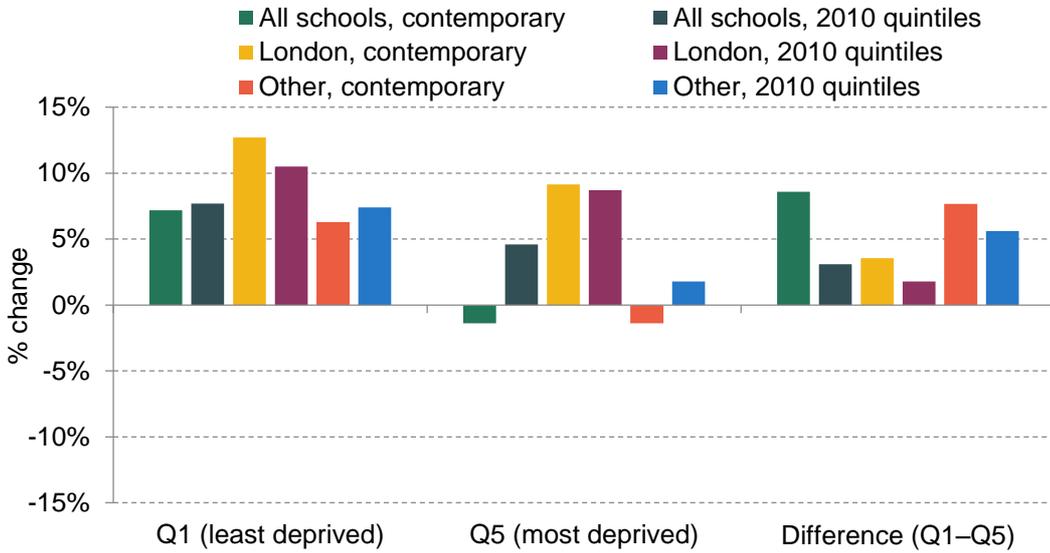
Therefore, a large part of the faster cuts amongst more deprived schools can be explained by the changing geography of deprivation, with some initially more deprived schools becoming less deprived over time and other schools becoming more deprived over time. Schools in London moving down quintiles (i.e. becoming less deprived) is likely to be playing a large role here.

Given that funding per pupil was largely based on what local authorities received in the previous year for much of this period (and not local authorities' actual characteristics), funding would not necessarily have responded to this changing geography of deprivation. This is an important reason why the new National Funding Formula was introduced, as it will allow funding differences across local authorities to respond to changes over time.

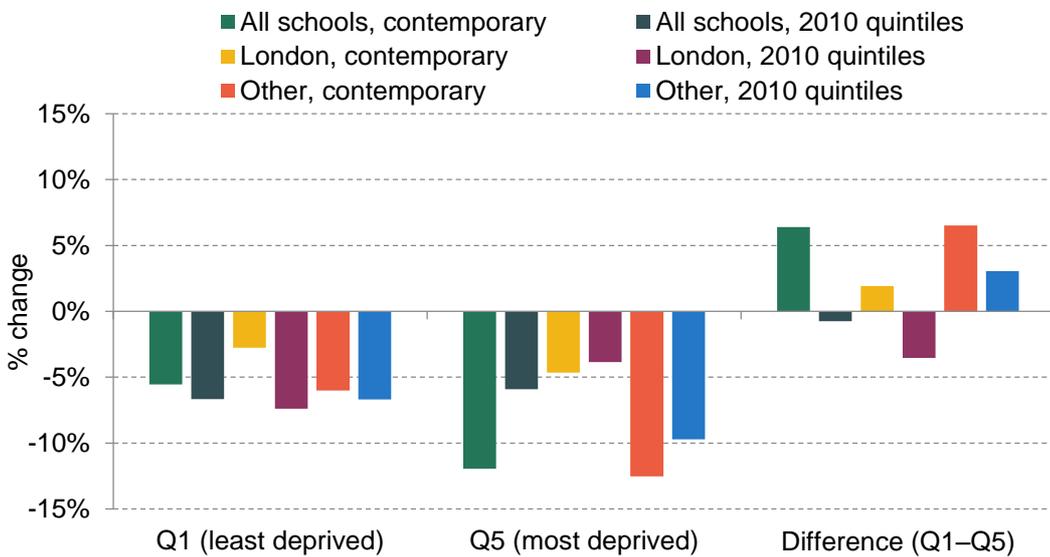
⁵ 29% of primary schools in the most deprived quintile were in London in 2010–11 as compared with 16% in 2018–19. Amongst secondary schools, the trends are even more dramatic. 34% of secondary schools in the most deprived quintile in 2010–11 were in London, and this fell to 22% by 2018–19.

Figure 3.7. Real-terms change in spending per pupil between 2010–11 and 2018–19 (current and fixed at 2010–11 levels), by quintile of free school meal eligibility, inside and outside London

a) Primary schools



b) Secondary schools



Note and source: See Table 3.2.

Figure 3.7 also breaks these results down by schools inside and outside London (though quintiles are based on all schools). This shows that faster falls in spending per pupil for the most deprived schools have been concentrated in areas outside of London. This is true based on contemporary quintiles and those fixed at 2010 levels. Indeed, deprived schools outside of London have seen the largest cuts since 2010–11. Deprived primary schools outside London saw a real-terms fall of 1% between 2010–11 and 2018–19, which compares with a picture of growth for less deprived schools outside London and all schools in London. Deprived secondary schools outside London saw real-terms cuts of 13%. This suggests that faster cuts for more deprived schools cannot solely be explained by the changing geography of deprivation. More research is needed to understand the force driving this trend.

Expected future changes due to National Funding Formula

Looking to the future, the changing distribution of funding per pupil across schools will be largely determined by the new National Funding Formula (NFF) for schools. This was introduced for 2018–19 and calculates a notional funding allocation for each school based on the number and characteristics of pupils attending each school. The NFF incorporates various funding factors, including pupil numbers, the number of pupils from deprived backgrounds, the number of pupils with low prior attainment and extra funding for smaller schools, as well as a range of other factors.

This amount is then summed across each school in a local authority to determine the local authority’s budget. Local authorities can then use these NFF allocations or implement their own local funding formulae. Actual funding allocations to schools currently still reflect local authority choices. The government has indicated that it intends to move to a ‘hard’ national funding formula in the future, where funding to individual schools directly reflects NFF allocations, but has not yet set a date.⁶

Importantly, the NFF includes statutory minimum funding levels for primary and secondary schools. These were initially set at £3,500 for primary schools and £4,800 for secondary schools. However, they were only used to determine funding allocated to local authorities, as per other elements of the NFF. For 2020–21, the

⁶ <https://www.gov.uk/government/news/every-pupil-in-england-to-see-another-rise-in-funding-in-2021>.

government increased these minimum levels to £3,750 for primary schools and £5,000 for secondary schools. It has also made them compulsory for local authorities. These minimum funding levels were further increased to £4,000 for primary schools and £5,150 for secondary schools for 2021–22.⁷

These minimum funding levels have played an increasingly important role in the school funding system. Indeed, Andrews (2020) shows that one in five schools will receive the minimum funding levels in 2021–22. Schools benefiting from these minimum funding levels tend to be less deprived schools with lower levels of funding.

With these changes in mind, Figure 3.8 shows the real-terms changes in NFF allocations by school deprivation quintile (based on the percentage of pupils eligible for free school meals) for each year of the NFF's operation. The first bar for each quintile compares the NFF's allocations for 2019–20 with the baseline for 2017–18, whilst the next two compare 2020–21 and 2021–22 with the previous year. The final bar shows the cumulative change from 2017–18 to 2021–22.

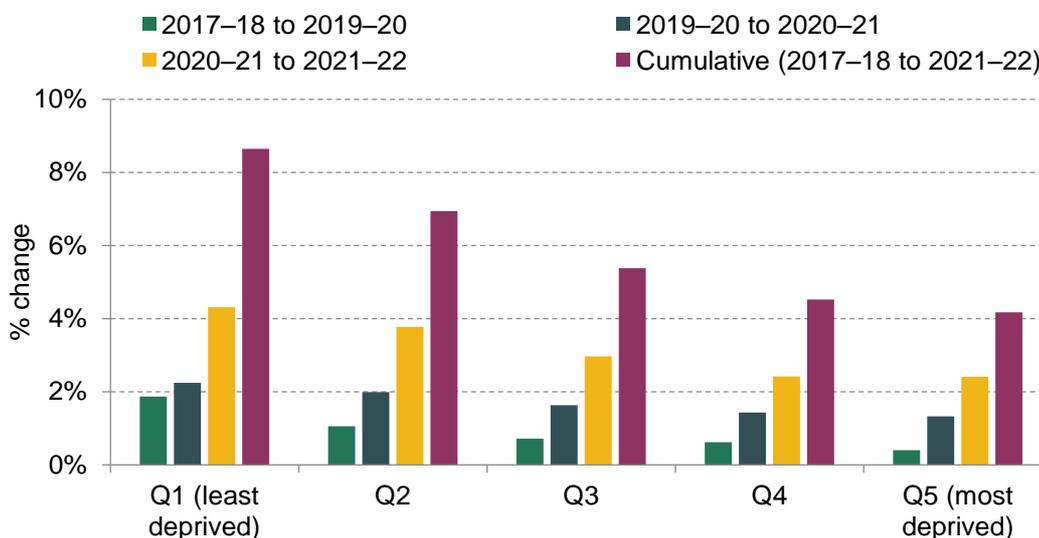
As can be seen, more deprived schools are due to receive lower real-terms increases in funding per pupil for each year of the NFF up to 2021–22. Cumulating these increases, NFF funding per pupil will increase by 4 percentage points less in real terms amongst the most deprived primary schools (4.2%) as compared with the least deprived ones (8.6%) between 2017–18 and 2021–22. We see a similar picture for secondary schools, with 3 percentage points lower growth amongst the most deprived secondary schools (3.9%) as compared with the least deprived ones (7.3%). These changes will reflect the increasingly important role played by minimum funding levels, as well as other changes to NFF factors over time (Andrews, 2020).

Actual school funding levels will be determined by local authority choices. However, NFF allocations will play an important role in determining the budgetary choices available to local authorities and minimum funding levels will represent a clear constraint.

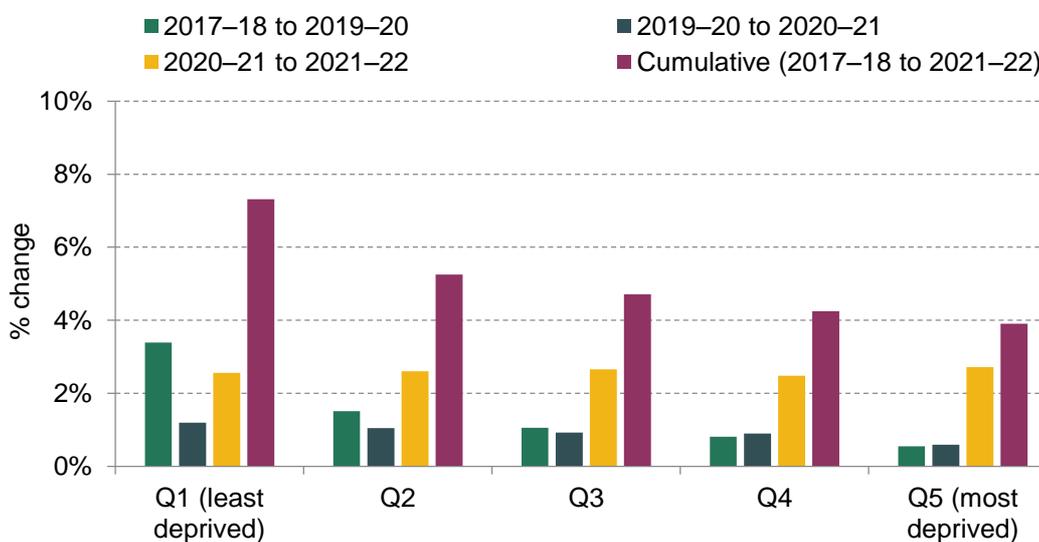
⁷ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/901889/FINAL_2021-22_NFF_Policy_Document_MB.pdf.

Figure 3.8. Real-terms changes in NFF allocations by quintile of eligibility for free school meals

a) Primary schools



b) Secondary schools



Note and source: Department for Education, National Funding Formula Allocations for [2019–20](#), [2020–21](#) and [2021–22](#). Additional data provided by the Department for Education. HM Treasury GDP deflators, June 2020 (<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-june-2020-quarterly-national-accounts>). Office for Budget Responsibility, *Fiscal Sustainability Report: July 2020* (https://cdn.obr.uk/OBR_FSR_July_2020.pdf).

As shown in the previous subsection, the deprivation funding premium has already fallen over recent years, with larger falls in spending per pupil for the most deprived schools reducing the deprivation funding premium from around 35% in 2014–15 to about 25% in 2018–19. Other things being equal, the net effect of the changes to NFF allocations up to 2021–22 will likely be a further reduction in the deprivation funding premium.

Summary

In summary, faster increases in spending per pupil meant that spending became much more focused on the most deprived schools over the 2000s, with spending per pupil around 30–35% higher in the most deprived schools as compared with the least deprived schools by 2009–10. Despite the introduction of the Pupil Premium, spending per pupil has fallen faster amongst more deprived schools over the last 10 years and the overall funding premium fell to about 25% by 2018–19, taking it back to mid-2000 levels. Having become significantly more focused on pupils from deprived backgrounds up to 2010 (Belfield, Goll and Sibieta, 2018), this picture has gone into reverse.

This can be partly explained by the changing geography of deprivation, with faster falls in deprivation inside London and a school funding system that was slow to adjust to such changes. This is an important reason why the National Funding Formula was introduced and, in the long run, it should allow the funding system to adjust to changes in the pattern of deprivation across local authorities. However, we also see faster falls in spending per pupil in deprived schools outside of London, based on current and past levels of deprivation. More research is needed to better understand these changes.

In the short run, the overall pattern also looks set to continue under existing plans for the National Funding Formula, with lower increases in formula allocations for schools in poorer areas. This pattern runs counter to the objective of using school funding to ‘level up’ poorer regions of the country and might pose additional challenges for deprived schools seeking to help pupils catch up after the closure of schools during the pandemic.

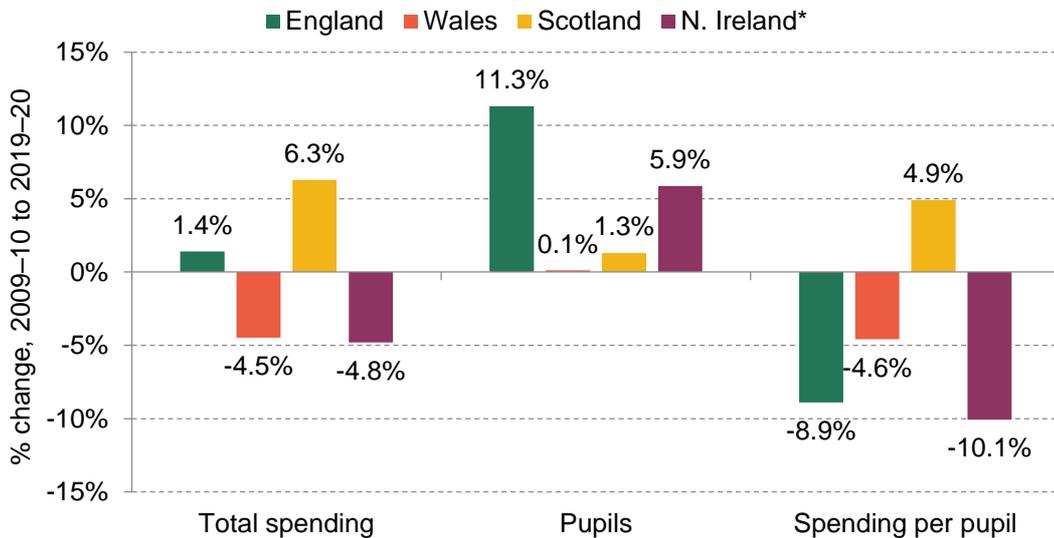
3.3 Comparisons across the UK

Up to this point, all our analysis has focused on England. In Figure 3.9, we expand our analysis by showing changes over time in total school spending, total pupil numbers and spending per pupil across the four nations of the UK. The definition of spending per pupil across the four nations largely matches that in Figure 3.1, i.e. total school spending on children aged 3–19 by schools and local authorities.

Figure 3.9 shows that real-terms cuts in school spending per pupil since 2009–10 have been largest in Northern Ireland (10%) and England (9%). Both countries have seen fast growth in pupil numbers. In England, a small real-terms increase in the total budget translated into cuts in spending per pupil as a result of 11% growth in pupil numbers. In Northern Ireland, the total budget fell in real terms by 5%, meaning that population growth of 6% led to even larger cuts in spending per pupil.

Cuts have been smaller in Wales (5%), where pupil numbers have been steady and cuts have been largely driven by a fall in total school spending of 4%.

Figure 3.9. Real-terms change in total school spending, pupil numbers and spending per pupil in England, Wales, Scotland and Northern Ireland, 2009–10 to 2019–20



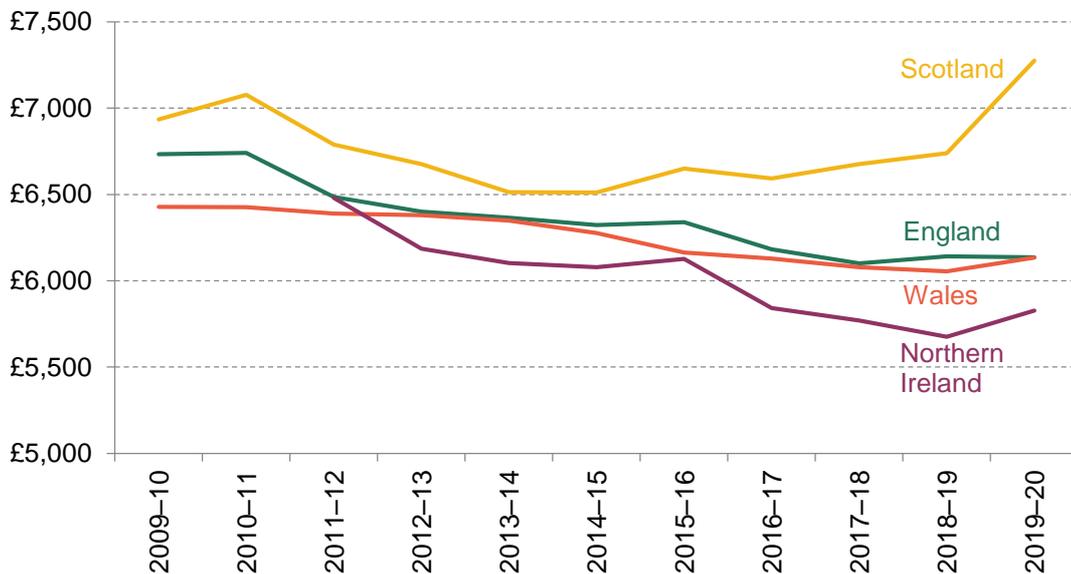
* Northern Ireland only covers changes from 2011–12 to 2019–20.

Source: See Figure 3.10.

Figure 3.10 compares the level of spending per pupil over time across the four UK nations. Across the period, school spending per pupil is consistently highest in Scotland and lowest in Northern Ireland. In 2019–20, spending per pupil was £6,100 per pupil in both England and Wales, but over £1,100 higher in Scotland and £300 lower in Northern Ireland.

Between 2009–10 and 2014–15, spending per pupil fell by 6% in real terms in Scotland. It then began to increase gradually, with a total rise of 3% up to 2018–19. In 2019–20, there was a large single increase of 8% in real terms or an extra £500 per pupil. This increase mostly reflects the Scottish government’s decision to increase teacher pay scales by 7% from April 2019 (with a further increase of 3% backdated to April 2018).⁸ The net result is that spending per pupil in Scotland will be about 5% higher in real terms in 2019–20 than in 2009–10. Scotland is the only UK nation to see a rise in spending per pupil between 2009–10 and 2019–20.

Figure 3.10. School spending per pupil across England, Wales, Scotland and Northern Ireland (2020–21 prices)



Source: See next page.

⁸ <https://www.bbc.co.uk/news/uk-scotland-47487093>.

Source to Figure 3.10

Figures for England taken from Figure 3.1.

Total school spending for Wales taken from Stats Wales, 'Education revenue expenditure' (<https://statswales.gov.wales/Catalogue/Local-Government/Finance/Revenue/Education>), with 2019–20 nowcasted based on Welsh Government, 'Local authority budgeted expenditure on schools' (<https://gov.wales/local-authority-budgeted-expenditure-schools-april-2019-march-2020>). Number of full-time-equivalent pupils in state-funded schools taken from Welsh Government, 'Schools' census results', 2010, 2012, 2017 (<https://gov.wales/schools-census-results-january-2017>) and 2020 (<https://gov.wales/schools-census-results-january-2020>).

Total school spending for Scotland based on education spending minus non-school spending as reported in Scottish Government, 'Local government provisional outturn and budget estimates' (<https://www2.gov.scot/Topics/Statistics/Browse/Local-Government-Finance/POBESats>), with full-time-equivalent pupil numbers calculated as the sum of pupils in state-funded schools and early education centres (<https://www.gov.scot/publications/summary-statistics-schools-scotland-no-10-2019-edition/>).

Total spending for Northern Ireland defined as the General Schools Budget with data taken from Northern Ireland Audit Office, *The Financial Health of Schools* (<https://www.niauditoffice.gov.uk/publications/financial-health-schools-0>), Northern Ireland Department of Education, 'DE budget 2018–19' (<https://www.education-ni.gov.uk/publications/de-budget-2018-19>) and 'DE budget 2019–20' (<https://www.education-ni.gov.uk/publications/de-budget-2019-20>), and the Salisbury Review (<https://www.education-ni.gov.uk/publications/independent-review-common-funding-scheme-1>). Northern Ireland pupil numbers relate to full-time-equivalent pupils at all schools, excluding independent schools and pre-school Sure Start centres (<https://www.education-ni.gov.uk/publications/school-enrolments-northern-ireland-summary-data>).

HM Treasury GDP deflators, June 2020 (<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-june-2020-quarterly-national-accounts>). Office for Budget Responsibility, *Fiscal Sustainability Report: July 2020* (https://cdn.obr.uk/OBR_FSR_July_2020.pdf).

3.4 Future challenges

The most prominent challenge facing schools and policymakers is that posed by the COVID-19 pandemic and the closure of schools to most pupils during lockdown. Empirical evidence strongly suggests that reduced time in school slows down the accumulation of skills. Pischke (2007) finds that West German students who, due to a reform, had two school years with approximately 40% less instructional time than normal were more likely to be held back a grade and less likely to enter academic tracks in secondary school (though long-run earnings were unaffected). Looking across around 50 countries, Lavy (2015) finds that an extra hour of instructional time per week in the main subjects increases test scores by around 6% of a standard deviation. Reviewing this and other literature, Burgess and Sievertsen (2020) estimate that 12 weeks' lost time in school will reduce educational attainment by a similar amount, or 6% of a standard deviation. This is a non-trivial amount, equivalent to about one month of normal educational progress (Education Endowment Foundation, 2020).

This effect will be partly mitigated by home and blended learning, as well as a return to school for some year groups from June 2020. However, the evidence suggests that the quantity of home learning was socially graded (Anders et al., 2020; Andrew et al., 2020; Cullinane and Montacute, 2020; Green, 2020). The actual number of pupils returning to school in June was rather limited too, with only 30% of pupils in Reception, Year 1 and Year 6 attending since the start of June, on average, and only about 10% of pupils in Years 10 and 12 attending on a given day.⁹ Evidence suggests the intention to return to school was also socially graded (Andrew et al., 2020)

In addition to a general loss of learning, one would therefore expect the effects to be more pronounced for children from disadvantaged families. There is already a significant gap in the educational achievement of children from poorer and richer families, with children from disadvantaged backgrounds about 18 months behind their peers at GCSE (Education Policy Institute, 2020a). Based on the empirical literature, the Education Endowment Foundation (2020) estimates that school closures will widen this attainment gap by between 11% and 75% by September

⁹ Author's calculations using Department for Education statistics (<https://www.gov.uk/government/statistics/attendance-in-education-and-early-years-settings-during-the-coronavirus-covid-19-outbreak-23-march-to-17-july-2020>).

2020, with a median projection of 36%. Burgess and Sievertsen (2020) confirm this by showing widening test score inequalities during lockdown as compared with before, with larger widening of inequalities at younger ages. A National Foundation for Educational Research (NFER) survey shows that teachers expect the learning gap between disadvantaged pupils and their peers will widen by 46% as a result of lockdown (Sharp et al., 2020).

In addition to COVID-19 and school closures, a number of pre-existing pressures will create challenges for school budgets. These include the cost of staff, given rises in teacher pay to meet the government's commitment to starting salaries of £30,000 by 2022. They also include the cost of school buildings and maintenance to meet the needs of a growing pupil population and ensure that existing school buildings are in a fit state of repair.

Table 3.3 provides an overview of the government's response so far, both to the COVID-19 pandemic and to more general pressures. The table focuses on future challenges, as opposed to additional spending during lockdown (such as support through the 'Exceptional Costs Fund'¹⁰ and digital equipment for disadvantaged learners¹¹).

In the rest of this section, we analyse the extent to which these plans seem likely to meet the scale and nature of challenges faced by pupils and schools over the next few years. We focus here entirely on England, rather than the UK as whole. The Scottish government has announced £75 million of funding for local authorities, enough to recruit an additional 1,400 teachers to support education recovery.¹² The Welsh government has announced a £29 million plan to recruit an extra 600 teachers and 300 teaching assistants to support learners, focusing on Years 11–13 as well as disadvantaged and vulnerable learners of all ages.¹³ Specific plans for Northern Ireland are yet to be announced.

¹⁰ <https://www.gov.uk/government/publications/coronavirus-covid-19-financial-support-for-schools/school-funding-exceptional-costs-associated-with-coronavirus-covid-19-for-the-period-march-to-july-2020>.

¹¹ <https://www.gov.uk/guidance/get-help-with-technology-for-remote-education-during-coronavirus-covid-19>.

¹² <https://www.gov.scot/news/schools-to-re-open-full-time/>.

¹³ <https://gov.wales/back-school-plans-september-coronavirus>.

Table 3.3. Summary of government response to challenges from COVID-19 and other existing challenges

Policy	Estimated cost and timescale	Details
National Tutoring Programme	£250m in 2020–21	Will provide subsidised access to tutors and coaches for pupils aged 5–16 and focused on disadvantaged pupils. Subsidies likely to continue for future years, though at lower rates. Extra £96m available for similar scheme for 16- to 19-year-olds.
Catch-up premium	£650m in 2020–21	One-off extra £80 per pupil aged 5–16; schools decide how to spend it.
School maintenance	£560m in 2020–21	Allocated to school sector for refurbishments.
School building programme	£1bn for projects starting in September 2021	50 projects starting in September 2021 as part of 10-year programme. £1bn likely to be spread out over a number of years. Further details expected in Spending Review.
Increase in teacher pay	£450m in 2020–21 About £1.9bn in 2022–23 (<i>funded from existing budgets</i>)	3.1% increase in average teacher pay in 2020, with faster rise of 5.5% for new teachers. Overall increase likely to be over 9% by 2022 compared with 2019, with increase of 23% for new teachers to deliver £30,000 starting salaries.

Source: Department for Education (<https://www.gov.uk/guidance/coronavirus-covid-19-catch-up-premium>, <https://www.gov.uk/government/news/every-pupil-in-england-to-see-another-rise-in-funding-in-2021>, <https://www.gov.uk/government/news/pm-announces-transformative-school-rebuilding-programme>, <https://www.gov.uk/government/news/teachers-set-for-biggest-pay-rise-in-fifteen-years>, <https://www.gov.uk/government/publications/evidence-to-the-strb-2020-pay-award-for-school-staff>) and Sibieta (2020).

Catch-up plans

The ‘catch-up premium’ represents a one-off extra £80 per pupil paid to schools for all pupils aged 5–16 in 2020–21. A higher rate of £240 will be paid to pupils in special schools, alternative provision and hospital schools given the higher per-pupil costs faced by these schools. The total allocation will be £650 million in 2020–21, which is equivalent to about 1.4% of the expected schools budget that year.

To see these figures in context, a rate of £80 per pupil equates to about £2,400 for a primary school class of 30 children. Based on current salaries, that would equate to about 10% of the cost of an additional teaching assistant for a year.¹⁴ The catch-up plans are therefore relatively modest in scale.

The National Tutoring Programme (NTP) is estimated to cost about £350 million in 2020–21, with £250 million allocated for pupils aged 5–16 and about £100 million for pupils aged 16–19. The overall goal of this programme is to provide additional targeted support to disadvantaged and other pupils likely to have fallen behind. This approach is backed up by a strong evidence base showing large benefits to tutoring and small-group tuition.¹⁵

The NTP has two different components. First, NTP Academic Mentors will be recruited by Teach First and based in individual schools in the most disadvantaged areas. NTP Academic Mentors will be employed by schools and fully funded. Second, the NTP Tuition Partners programme (managed by the Education Endowment Foundation) will create a list of approved organisations able to provide tutoring and focused on disadvantaged pupils. Schools would receive a 75% subsidy towards tutoring services, with the rest needing to be paid from schools’ existing budgets or from the catch-up premium. It is expected that the NTP will continue beyond 2020–21, but with lower subsidy rates.

¹⁴ This calculation is based on the minimum full-time-equivalent cost of support staff of £17,364 (<https://neu.org.uk/advice/support-staff-pay-and-conditions>) and likely employer National Insurance and pension contributions.

¹⁵ <https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit/one-to-one-tuition/>.

It is clearly difficult to assess the sufficiency of these proposals, but comparisons with existing evidence and illustrative calculations can be helpful.

First, let us consider what the £250 million NTP funding might be able to provide. Ignoring the distinction between the NTP Mentors and Partners programmes, let us assume there are 1.4 million pupils eligible for support (the number of pupils eligible for free school meals in January 2020¹⁶) and assume the cost of 1 hour of one-to-one tuition is £50¹⁷ (with 75% paid by the NTP and 25% paid by schools). Based on these assumptions, £250 million would provide subsidised access to about 6 hours in total of tuition for 1.4 million pupils.

Based on Lavy (2015), Eyles, Gibbons and Monteburano (2020) estimate that an additional 2 hours of tuition per week for a full school year would be required to make up for each week of learning lost. Clearly, the actual amount of tutoring provided through the NTP will depend on the actual costs per hour, which pupils are included and whether the tutoring is on a one-to-one or small-group basis. However, such calculations do suggest that the scale of the NTP might be relatively low compared with the scale of likely lost learning.

Second, there is now strong evidence showing higher benefits to increases in school resources for more disadvantaged pupils (Jackson, Johnson and Persico, 2016; Jackson, 2018; Gibbons, McNally and Viarengo, 2018). There is also now clear evidence pointing to bigger losses in learning for such pupils (DELVE Initiative, 2020). However, the catch-up premium is set at the same level for all pupils. Providing a higher catch-up premium for disadvantaged pupils might have allowed resources to be better targeted at pupils likely to have experienced the greatest losses in learning. Given that only the NTP is targeted at disadvantaged pupils, the overall package of catch-up support might be limited in its ability to mitigate rising inequalities. Faster falls in spending per pupil for the most deprived schools over the past decade will make it even harder for such schools to address the inequalities likely to emerge from school closures. Others have recommended a system of more targeted support, such as doubling the Pupil Premium for specific sets of

¹⁶ <https://www.gov.uk/government/statistics/schools-pupils-and-their-characteristics-january-2020>.

¹⁷ <https://www.tes.com/news/schools-must-fund-quarter-covid-catch-tutor-costs>.

disadvantaged pupils at a cost of £800 million for 2020–21 (Education Policy Institute, 2020b).

Third, whilst one could argue the catch-up plans might be relatively limited, this should be set against concerns regarding the potential to scale-up tutoring to such a large extent within a short time frame. Whilst the empirical evidence on the effects of tutoring is strong, it has not been attempted at such a scale before. Ensuring provision remains of a high quality everywhere represents a significant challenge.

School capital and maintenance

As part of its response to the pandemic and wider spending plans, the government has also announced increases in capital spending, both for new buildings and for improving the condition of existing school buildings.

In June 2020, it announced an extra £1 billion in spending on school buildings for 50 projects commencing in September 2021, with further details of a 10-year programme to be announced at the time of the Spending Review.

Figure 3.11 sets the £1 billion announcement in context by showing the level of education capital spending between 2002–03 and 2020–21, the overwhelming majority of which relates to schools. As can be seen, spending rose rapidly through the 2000s from £4 billion in 2002–03 to reach a peak of £9 billion in 2009–10, reflecting the large increases under the Building Schools for the Future programme. It then fell very sharply back to reach a recent low point of just over £4 billion in 2013–14. Over the period between 2014–15 and 2019–20, spending then averaged a higher level of £5.4 billion per year. However, recent falls led to a planned spend of about £4.3 billion in 2020–21.

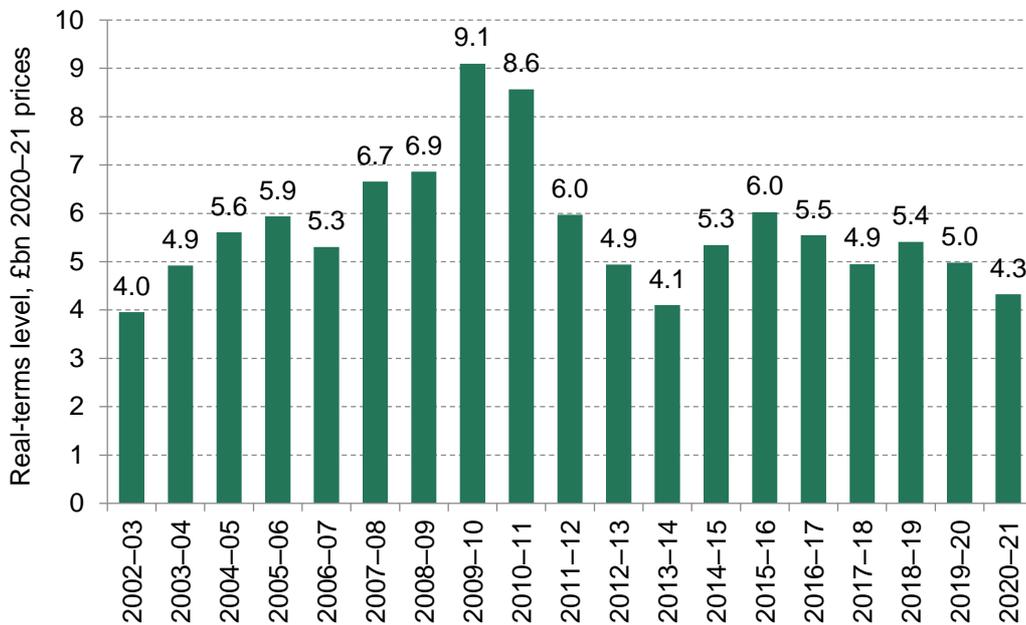
The additional £1 billion seems likely to be spread out over a number of years. However, even if all of the increase took place in 2021–22, this would only take capital spending back to the average level seen between 2014–15 and 2019–20 and still below the higher levels seen in the mid 2000s.

Whilst these plans for overall capital spending seem relatively modest compared with recent history, the need for new school buildings is likely to slow down over the next few years. Between 2010 and 2020, the number of pupils in state-funded schools in England grew by 11% or about 830,000. Between 2020 and 2023, the number of pupils is expected to grow by only 1% or 75,000. A falling primary

school population is expected to almost offset a rising secondary school population.¹⁸ Other things being equal, this is likely to reduce the need to build new schools as compared with the last decade.

In June 2020, the government also announced £560 million of capital spending for repairs to existing schools. This would be in addition to existing plans for £1.4 billion of funding for school maintenance and repairs in 2020–21,¹⁹ taking expected funding to £2.0 billion.

Figure 3.11. Education capital spending over time, £bn 2020–21 prices



Source: Public Expenditure Statistical Analyses 2020, 2019, 2014, 2013, 2010 (<https://www.gov.uk/government/collections/public-expenditure-statistical-analyses-pesa>) and 2008 (<https://www.gov.uk/government/statistics/public-expenditure-statistical-analyses-2008>). HM Treasury GDP deflators, June 2020 (<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-june-2020-quarterly-national-accounts>). Office for Budget Responsibility, *Fiscal Sustainability Report: July 2020* (https://cdn.obr.uk/OBR_FSR_July_2020.pdf).

¹⁸ <https://www.gov.uk/government/statistics/national-pupil-projections-july-2020>.

¹⁹ <https://www.gov.uk/government/news/pm-announces-transformative-school-rebuilding-programme>.

Whilst this is clearly a significant annual increase, the key question is how this compares with measures of need. Between 2011 and 2014, the Department for Education undertook a wide-ranging survey of the condition of the school estate, which informed funding allocations. Based on this, the National Audit Office (2017) estimated that the cost of returning school buildings to a satisfactory or good condition would be about £6.7 billion, including £5.5 billion for major repairs (such as £1.4 billion to ensure that electrical services remained safe and usable). A further £7.1 billion was required to correct minor problems and bring all buildings into a good condition.

The government expects the condition of the school estate to have worsened over time. According to modelling quoted by the National Audit Office (2017), ‘An estimated 40% of the estate was built between 1945 and 1976. The Department expects that many [school] buildings will need to be replaced or significantly refurbished soon because they were designed to last 60 years. Its indicative modelling suggests that the cost of returning all schools to satisfactory condition will double between 2015–16 and 2020–21, even after taking account of its investment’.

Between 2017 and 2019, the government was undertaking a further survey of school buildings, which will inform future spending levels. Until the results of this new survey are published, it would be hard to predict how much more spending will be needed for school repairs beyond the £560 million already announced.

Growing staff costs

At the time of the 2019 Spending Review, the government announced a major commitment to increase teacher starting salaries to £30,000 by 2022. This would require a 23% or nearly £6,000 increase in starting salaries between 2019 and 2022 for new teachers outside of London. The government also committed to increased salaries for existing and more experienced teachers.

As a first step towards delivering on these commitments, the government chose to follow recommendations from the School Teachers’ Review Body (STRB)²⁰ and implement a 3.1% average increase in teacher pay for September 2020, with a 5.5%

²⁰ <https://www.gov.uk/government/publications/school-teachers-review-body-30th-report-2020>.

increase in starting salaries.²¹ In its evidence to the STRB, the government estimated that a pay award on this scale would cost schools about £450 million in 2020–21.²²

Looking further into the future, Sibieta (2020) estimates that implementing starting salaries of £30,000 in 2022 and a 3% per year increase in teacher pay per head would cost schools about £1.9 billion in 2022–23 (based on the government’s example trajectory set out in its evidence to the STRB). This would take up about one-third of the extra £7.1 billion in funding set out for 2022–23 (after excluding additional funding for £700 million earmarked for high-needs budgets).

To put it another way, the specific costs faced by schools are likely to grow at a faster pace than general inflation over the next few years. As we have already shown, the expected real-terms growth in spending per pupil between 2019–20 and 2022–23 remains positive but drops to about 6% after accounting for the specific costs schools are likely to face (from about 9% as measured against general inflation).

Different schools are likely to face very different cost pressures as a result of the teacher pay settlement. Given the faster increases for new and inexperienced teachers, schools will face higher costs if they are more likely to rely on such teachers. As Sibieta (2020) shows, schools with more disadvantaged pupils and schools in London are more likely to rely on early-career teachers (with less than five years’ experience), with an extra 10% of teachers in their early-career phase in schools with the most disadvantaged pupils as compared with schools with the least disadvantaged pupils. This will mean that schools serving more disadvantaged pupils, on average, will see faster rises in costs. The fact that funding increases are likely to be lower for such schools will add to the pressures they face in the next few years.

²¹ <https://www.gov.uk/government/news/teachers-set-for-biggest-pay-rise-in-fifteen-years>.

²² <https://www.gov.uk/government/publications/evidence-to-the-strb-2020-pay-award-for-school-staff>.

3.5 Summary and conclusions

Following large increases over the 2000s, total school spending per pupil fell by about 9% in real terms between 2009–10 and 2019–20. The government's plan to increase school spending by £7.1 billion in cash terms by 2022–23 will mostly reverse these cuts. However, spending per pupil will remain lower in real terms in 2022–23 than it was 13 years earlier in 2009–10.

The picture of cuts to school spending per pupil differs across the countries of the UK over the last decade. Northern Ireland has seen a similar real-terms fall of 10%, whilst Wales has seen a smaller cut of about 5%. Up until 2014–15, spending per pupil also fell in Scotland. It has since begun to rise again, with an 8% real-terms rise in 2019–20 to help pay for large increases in teacher salaries.

In England, cuts have been focused more on secondary schools. In 2019–20, secondary school spending will be 9% lower in real terms, whilst primary school spending will be about 4% higher than it was in 2009–10. These changes result from rapid cuts to sixth-form funding and funding changes favouring primary schools between 2009–10 and 2015–16. This actually continues a long-run pattern of spending changes favouring primary schools relative to secondary schools. Spending in secondary schools was about 67% higher than in primary schools in the late 1980s. This difference has since fallen to 30% during the 2000s and now stands at 16%, the lowest spending ratio for at least 40 years, and probably a lot longer.

Over the 2000s, spending became much more focused on deprived schools, with spending per pupil around 30–35% higher in the most deprived schools than in the least deprived schools by 2009–10, up from just over 20% extra in 2000. Despite the introduction of the Pupil Premium, spending per pupil has fallen faster amongst more deprived schools over the last 10 years and the overall funding premium fell to about 25% by 2018–19, taking it back to mid-2000 levels. This can be partly explained by the changing geography of deprivation, with faster falls in deprivation inside London and a school funding system that was slow to adjust to such changes. In the long run, the new National Funding Formula should allow the funding system to adjust to changes in the pattern of deprivation across local authorities. However, in the short run, the overall pattern actually looks set to continue under existing plans for the National Funding Formula, with lower increases in formula allocations for schools in poorer areas. We also see faster falls in spending per pupil in deprived schools outside of London, based on current and past levels of deprivation.

These patterns run counter to the objective of using school funding to ‘level up’ poorer regions of the country and might pose additional challenges for deprived schools seeking to help pupils catch up after the closure of schools during the pandemic.

The COVID-19 pandemic and closure of schools during lockdown will create immense challenges for schools, with lost schooling and a likely widening of existing inequalities. This comes on top of existing challenges, such as past squeezes on school resources, increases in teacher pay and a growing need for school repairs.

The government has announced a range of additional spending measures to help schools face these challenges. These include a one-off catch-up premium of £80 per pupil aged 5–16, a national tutoring programme (£250 million for pupils aged 5–16), additional money for school repairs (£560 million), and £1 billion for school building projects starting in September 2021.

The set of catch-up funding and activities is likely to help mitigate the lost learning during lockdown, and the focus on tutoring is well aligned with empirical evidence. However, the plans are relatively modest compared with evidence on the likely reductions in skills. Only the National Tutoring Programme is targeted at more disadvantaged pupils. This will make it harder to address the inequalities that are likely to have emerged during lockdown. Schools serving disadvantaged areas have also seen larger falls in spending per pupil over the last decade and are set to see the smallest increases under plans for the National Funding Formula over the next few years. Large increases in starting salaries mean that disadvantaged schools are also likely to face the fastest increases in costs over the next few years as they are more likely to employ inexperienced teachers.

Faster falls in spending per pupil over the last decade, slower increases under the National Funding Formula, a likely widening of educational inequalities and higher costs associated with teacher pay changes mean that there is now a very strong case for extra funding targeted at more deprived schools at the upcoming Spending Review in Autumn 2020. There is also strong evidence showing that higher spending and resources have the largest impact on more disadvantaged or deprived pupils. The most natural way to provide such extra funding would be via increases in the Pupil Premium or the National Funding Formula factors relating to educational disadvantage.

The upcoming Spending Review will also focus on capital spending. Indeed, the government has already announced the start of a new 10-year school rebuilding programme from September 2021. The current state of school buildings and facilities means that more spending will be required in the autumn Spending Review to address major faults and repairs. How much more will only be known when the results of a three-year property survey are published.

Appendix B. School spending methodology

We have two main methods for calculating school spending per pupil. The first relates to school-based spending per pupil, whilst the second additionally includes spending undertaken by local authorities. Here, we detail the underlying assumptions, methods and data sources for each measure.

School-based spending

Our measures of school-based spending per pupil are shown for both primary and secondary state-funded schools in Figure 3.3. The methods and data used for calculating these figures are updated from Belfield and Sibieta (2016). Spending includes all spending undertaken by state-funded schools, including academies and free schools where possible. Given that the data do not break expenditure down by pre-16 or post-16 categories, this will include spending on school sixth forms. We exclude special schools because funding arrangements for these schools are more complex and driven more by the needs of individual pupils.

We make use of five main data sources for expenditure: CIPFA Education Statistics Actuals between 1978–79 and 1999–2000; schools’ Section 52/251 returns between 1999–2000 and 2009–10; Consistent Financial Reporting data from 2010–11 to 2018–19; Academies Accounts Returns from 2011–12 to 2018–19; and national school funding allocations for 2019–20.

The CIPFA Education Statistics Actuals compile data returned by each local authority (LA) in England and Wales. This includes information about the number

of pupils and teachers and a breakdown of expenditure on primary²³ and secondary schooling.²⁴ The CIPFA data include all expenditure by LAs on schooling.²⁵ Prior to Local Management of Schools in 1990, this expenditure was primarily spent directly by the LA. After 1990, this expenditure is the amount allocated to schools directly through the LA formula plus the amount spent centrally by the LA. The CIPFA data thus combine school-based and LA-based expenditures. We are unfortunately not able to separate these two components.

From 1999–2000 to 2009–10, we use the Section 52/251 data. These data are compiled from the returns of individual schools about their levels of funding and expenditure each year. Differences between funding and expenditure may emerge when schools do not spend their entire budget. As we are interested in the amount of money spent on pupils' education, we use the expenditure data wherever possible. Importantly, this excludes central spending by LAs. As such, the data from Section 52/251 returns represent school-based expenditure. In all cases, we divide total expenditure in each financial year by the number of full-time-equivalent pupils in the January within the financial year to create per-pupil measures of school expenditure (for example, January 2013 for financial year 2012–13).

From 2010–11 onwards, we make use of Consistent Financial Reporting (CFR) data downloaded from the Schools Financial Benchmarking Service²⁶ and annual performance tables.²⁷ Spending per pupil is defined as total net expenditure divided by the number of full-time-equivalent pupils. Net expenditure is defined as total

²³ The expenditure data for nursery and primary are combined for the years 1978–79, 1979–80 and between 1987–88 and 1995–96; therefore we estimate combined nursery–primary per-pupil funding. We then combine this with the primary per-pupil Section 52/251 data using the method outlined below. This is a reasonable assumption, as total nursery funding only constituted 1.2% of total nursery and primary funding in 1986–87.

²⁴ We use the Net Expenditure variable (available from 1978–79) for consistency across years. This includes spending on teaching staff, other staff, contributions to/from other local education authorities and other net expenditure.

²⁵ In the years between 1993–94 and 1997–98, we add data on funding and pupils in grant-maintained schools (data kindly provided by Damon Clark). The CIPFA data are coded from scanned PDF documents available from the CIPFA website. Headings and definitions often change over time and there are a number of clear errors in the original data (for example, missing zeros, incorrect ordering and incorrect labelling of local authorities). We have made every effort to check and correct the data but a small number of errors may remain.

²⁶ <https://schools-financial-benchmarking.service.gov.uk/Help/DataSources>.

²⁷ <https://www.compare-school-performance.service.gov.uk/download-data>.

expenditure net of income from catering, teacher supply insurance claims, community-focused income and capital expenditure from revenue account.

Academies Accounts Returns (AAR) data are available from 2011–12 to 2018–19 from the Schools Financial Benchmarking Service²⁸ and the income and expenditure of academies.²⁹ This means all academies are missing from the data for any period between their foundation or conversion and 2011–12. We do not include schools where information is only available for part of the financial year. We only use spending recorded for individual academies, which will exclude any money retained centrally by multi-academy trusts. We use a similar definition of net expenditure to that used in CFR data. In particular, we define net expenditure as total expenditure minus income from catering, teacher supply insurance claims and capital expenditure from revenue account. Unfortunately, community-focused income can only be deducted for 2011–12.

A number of inconsistencies mean the spending per pupil will be higher for academies than for similar maintained schools. First, academies' financial data relate to the academic year, rather than the financial year. Second, academies' expenditure will include funding for services provided by LAs for maintained schools (particularly in the years 2011–12 and 2012–13). Third, sponsor academies tend to be located in more deprived, urban areas, which typically receive higher levels of funding. This means the exclusion of academies before 2011–12 will likely depress the recorded measure of overall spending below its true level and their inclusion afterwards will create an artificial jump in spending per pupil (particularly for secondary schools).

To create a consistent school spending figure, we need to use a consistent definition of LAs over time. Given that there were significant changes to LAs in the mid 1990s, we use the LAs as they were defined before 1996. We define 1996 LAs using the *Gazetteer of the Old and New Geographies of the United Kingdom* produced by the Office for National Statistics (ONS).³⁰ The Inner London Education Authority was also abolished in 1990 and replaced by 13 smaller LAs (including the City of London). To create a consistent series, we combine these

²⁸ <https://schools-financial-benchmarking.service.gov.uk/Help/DataSources>.

²⁹ <https://www.gov.uk/government/collections/statistics-local-authority-school-finance-data>.

³⁰ <http://www.ons.gov.uk/ons/guide-method/geography/beginner-s-guide/glossary/geography-gazetteer.pdf>.

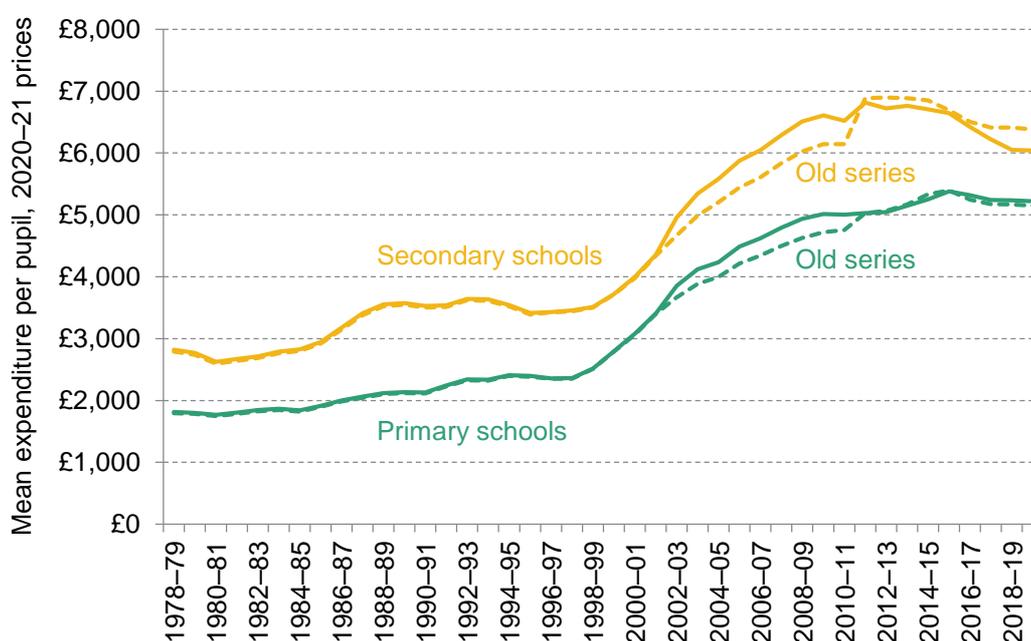
smaller areas to form a single LA in our analysis. This leaves us with 96 LAs in England (we exclude the Isles of Scilly and the Isle of Wight). We calculate LA-level expenditure-per-pupil data from the individual schools data in the Section 52/251 returns. All figures are weighted by pupil numbers to ensure that LAs with larger numbers of pupils are weighted more heavily in our analysis.

To combine our data sets, we apply the LA-level expenditure-per-pupil growth rates implied by the CIPFA data to extrapolate the Section 52/251 data backwards from 1999–2000. This creates an LA-level data series for school-based spending from 1978–79 through to 2009–10. However, there are three inconsistencies that remain between our data sets. In creating this series, we therefore make the following assumptions:

- The inclusion of nursery data does not significantly affect the *growth* rate of nursery and primary funding per pupil in the CIPFA data. Given that nursery spending was relatively small over the period covered by the CIPFA data (up to 1999–2000), this assumption appears relatively minor.
- The growth rate of LA expenditure (equivalent to school funding plus central LA expenditure) provides a good approximation to the growth rate of school-based expenditure within the LA between 1990–91 and 1999–2000. This appears to be a relatively innocuous assumption. Between 1994–95 and 1998–99, national statistics on school-based spending and total school spending by LA show that both sets of figures for spending per pupil were largely frozen in real terms (Department for Education and Skills, 2004).
- The exclusion of central LA spending from the Section 52/251 data does not significantly affect the trends and levels. This is not a benign assumption. Belfield and Sibieta (2016) show that LA-based spending represented a shrinking share of total school spending over the 2000s and that most of this reduction occurred over the early 2000s, falling from 16% in 2000–01 to 11% by 2006–07. These results suggest that trends in school-based expenditure probably represent an overestimate of the growth rate in total school spending over time. We therefore calculate an additional measure of total school spending stretching back to 2003–04, which does include LA-based spending (see below).

This provides a broadly consistent measure of school-based spending per pupil between 1978–79 and 2018–19. We then project the series up to 2019–20 by making use of the growth rate in total school funding per pupil between 2018–19 and 2019–20. This includes the Dedicated Schools Grant,³¹ Pupil Premium allocations,³² Teachers’ Pay Grant³³ and pupil number projections.³⁴

Figure B.1. Spending per pupil in primary and secondary schools under old and new data/methods (2020–21 prices)



Source: Britton, Farquharson and Sibieta (2019) and this appendix. HM Treasury GDP deflators, June 2020 (<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-june-2020-quarterly-national-accounts>). Office for Budget Responsibility, *Fiscal Sustainability Report July: 2020* (https://cdn.obr.uk/OBR_FSR_July_2020.pdf).

³¹ 2018–19 (<https://www.gov.uk/government/publications/dedicated-schools-grant-dsg-2018-to-2019>) and 2019–20 (<https://www.gov.uk/government/publications/dedicated-schools-grant-dsg-2019-to-2020>).

³² 2018–19 (<https://www.gov.uk/government/publications/pupil-premium-conditions-of-grant-2018-to-2019>) and 2019–20 (<https://www.gov.uk/government/publications/pupil-premium-allocations-and-conditions-of-grant-2019-to-2020>).

³³ <https://www.gov.uk/government/publications/teachers-pay-grant-allocations-for-2020-to-2021-financial-year>.

³⁴ <https://www.gov.uk/government/statistics/national-pupil-projections-july-2020>.

For this year's report, the use of CFR data through to 2018–19 and additional years of AAR data represents a change to data and methods. We have also adjusted methods for earlier years to ensure a consistent definition of net expenditure. In particular, we no longer deduct all private income for years 2002–03 through to 2010–11.

Figure B.1 shows the series from our 2019 report updated to 2020–21 prices and how this compares with our new figures from Figure 3.3. Making use of more years of actual expenditure (as opposed to central government funding allocations) naturally changes the picture since 2015–16, including greater cuts in secondary schools as a result of cuts to sixth-form funding. The new series indicates higher levels of spending per pupil between 2002–03 and 2010–11, about £200–£300 higher for primary schools and £300–£500 higher for secondary schools. This reflects a changed assumption of no longer deducting all private and voluntary income, matching the approach used in the CFR data more closely. A fortunate consequence of this change is that the jump in spending per pupil as a result of data inconsistencies in 2011–12 is much less prominent. Figures for 2010–11 through to 2015–16 are changed slightly due to use of different data and assumptions.

Total school spending

Total school spending (as presented in Figure 3.1) is intended to represent all spending by either schools or local authorities on children aged 3–19 in state-funded schools in England.

'**Spending by schools**' is calculated as the sum of (net) individual school budgets, any money delegated to schools for high needs, the Pupil Premium and the Teachers' Pay Grant. Individual school budgets and high-needs delegated funding are calculated from Section 52/251 out-turn data up to 2012–13 and Section 52/251 budget data from 2013–14 to 2019–20. For years 2010–11 to 2012–13, we additionally include academies' recoupment funding from Dedicated Schools Grant allocations. Pupil Premium allocations 2011–12 to 2019–20 and the Teachers' Pay Grant are taken from the same sources as school-based spending above. For years 2013–14 to 2016–17, we also add imputed values of the Education Services Grant based on the published rate and pupil numbers.

This spending will include funding for delivery of the free entitlement for 3- and 4-year-olds, which cannot be excluded from individual school budgets in most years

of data. We are, however, able to exclude funding for 2-year-olds as detailed in table 8 of Section 52/251 budget statements.

‘**Spending by local authorities**’ is calculated as the (net) schools budget minus any funding provided direct to schools via individual schools budgets or top-ups to providers for high-needs funding. We additionally include the wider education and community budget detailed in Section 52/251 out-turn and budget returns (excluding items 2.3.1 to 2.4 for consistency with school funding figures for Wales).

‘**School sixth-form funding**’ is based on allocations to school sixth forms as presented in Figure 4.1 and detailed further in Appendix C.

Pupil numbers in state-funded schools are calculated from Department for Education, ‘Schools, pupils and their characteristics’, January 2010 to 2020³⁵ and Department for Education, ‘National pupil projections’, July 2020.³⁶ We then additionally include pupils aged 3–4 in private, voluntary and independent settings from Department for Education, ‘Education provision: children under 5 years of age’, January 2010 to January 2020.³⁷

³⁵ <https://www.gov.uk/government/collections/statistics-school-and-pupil-numbers>.

³⁶ <https://www.gov.uk/government/statistics/national-pupil-projections-july-2020>.

³⁷ <https://www.gov.uk/government/collections/statistics-childcare-and-early-years#provision-for-children-under-5-years-of-age-in-england>.

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