

2019 annual report on education spending in England: schools

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3. School spending

School spending covers pupils in state-funded schools aged 5–16, as well as pupils aged 16–18 in school sixth forms. In 2018–19, total spending on schools in England represented about £50 billion (in 2019–20 prices), accounting for 17% of total public service spending in England.¹

In what follows, Section 3.1 updates our estimates for school spending per pupil over time in England and illustrates how staffing levels have changed over the same period. Section 3.2 analyses how school spending per pupil has changed across the UK over the past decade. In Section 3.3, we set out the challenges for the next spending review and the cost of various scenarios for school spending over the next four years. Section 3.4 provides a summary of this chapter.

Further details and assumptions in constructing measures of school spending per pupil can be found in Appendix B.

3.1 Trends in school spending and staffing in England

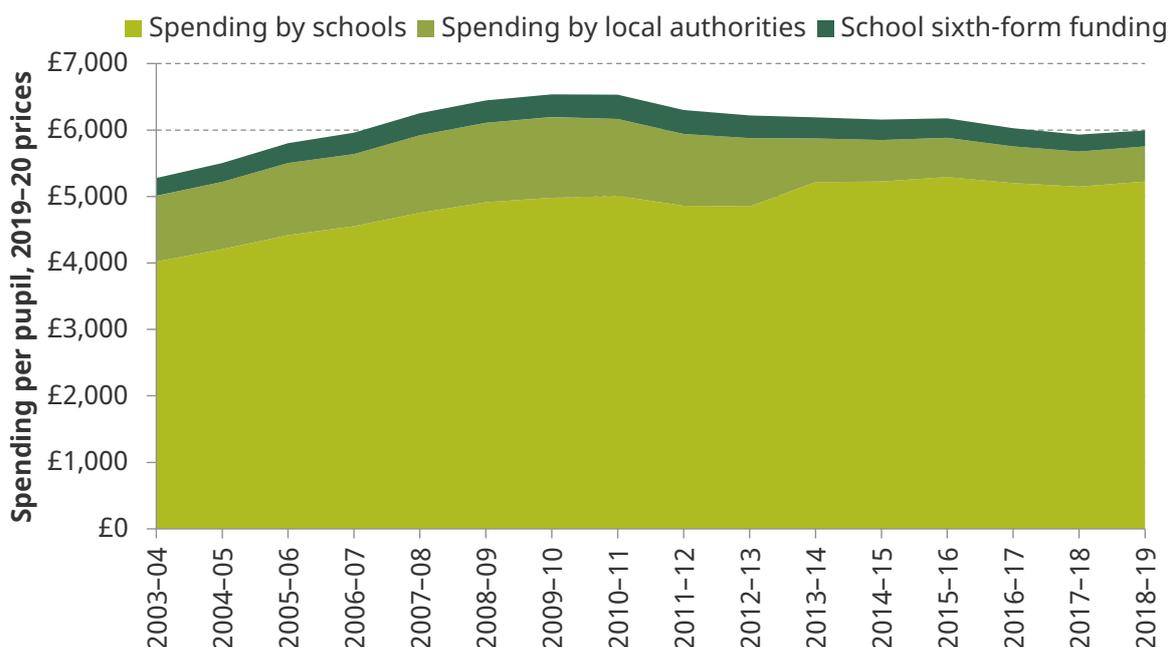
Figure 3.1 shows total school spending per pupil aged 3–19 broken down into three different components:

- **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 pupils with special educational needs, transport, educational psychology and other services provided to schools and pupils by local authorities.
- **Sixth-form funding** – This includes funding provided to schools for pupils aged 16–19.

In 2003–04 (the earliest year for which we can produce this set of figures in a consistent way), spending directly allocated to schools represented £4,000 per pupil (in 2019–20 prices) or about 76% of total school spending per pupil, which stood at £5,300 per pupil. The rest represented spending by local authorities (about £1,000 per pupil) and sixth-form funding (about £270 across all pupils aged 3–19 or about £5,000 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%.

¹ Total school spending as calculated in Figure 3.1 and quoted as a proportion of total resource departmental expenditure limits for 2018–19 (excluding Wales, Scotland and Northern Ireland) as recorded in PESA 2019 (<https://www.gov.uk/government/statistics/public-expenditure-statistical-analyses-2019>).

Figure 3.1. Total school spending per pupil by component (2019–20 prices)

Note and source: See Appendix B.

Table 3.1. Summary of levels and changes in different components of total school spending per pupil (2019–20 prices)

	Spending by schools	Spending by local authorities	School sixth-form spending	Total spending
2003–04	£4,019	£991	£268	£5,279
<i>Change</i>	<i>£963</i>	<i>£219</i>	<i>£75</i>	<i>£1,258</i>
<i>Real-terms growth</i>	<i>24%</i>	<i>22%</i>	<i>28%</i>	<i>24%</i>
2009–10	£4,983	£1,211	£343	£6,537
<i>Change</i>	<i>£245</i>	<i>-£685</i>	<i>-£103</i>	<i>-£543</i>
<i>Real-terms growth</i>	<i>5%</i>	<i>-57%</i>	<i>-30%</i>	<i>-8%</i>
2018–19	£5,228	£526	£240	£5,994

Note and source: See Appendix B.

After 2009–10, the different components evolved very differently. Per-pupil spending by schools rose by around 5% in real terms or about £250. 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 lower than expected between 2010–11 and 2015–16, 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 Sibietta (2015) suggests this transfer of funding equated to about 4% of school budgets.

Third, these figures will also include growth in early years spending reported in the previous chapter.

In contrast, local authority spending on services fell by 57% or about £690 per pupil in real terms between 2009–10 and 2018–19, and school sixth-form funding per pupil fell by about 30% or £100.

As a result of these contrasting trends, total school spending per pupil fell by about 8% or about £540 per pupil between 2009–10 and 2018–19. Much of this fall happened prior to 2015–16, with a fall of 5.5% in real terms between 2009–10 and 2015–16 and a further fall of 2.9% between 2015–16 and 2018–19.²

Looking over the long run, these changes leave total school spending per pupil about 14% higher in real terms than at the start of our series in 2003–04.

These figures represent the best measures 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 7% in real terms between 2009–10 and 2018–19.

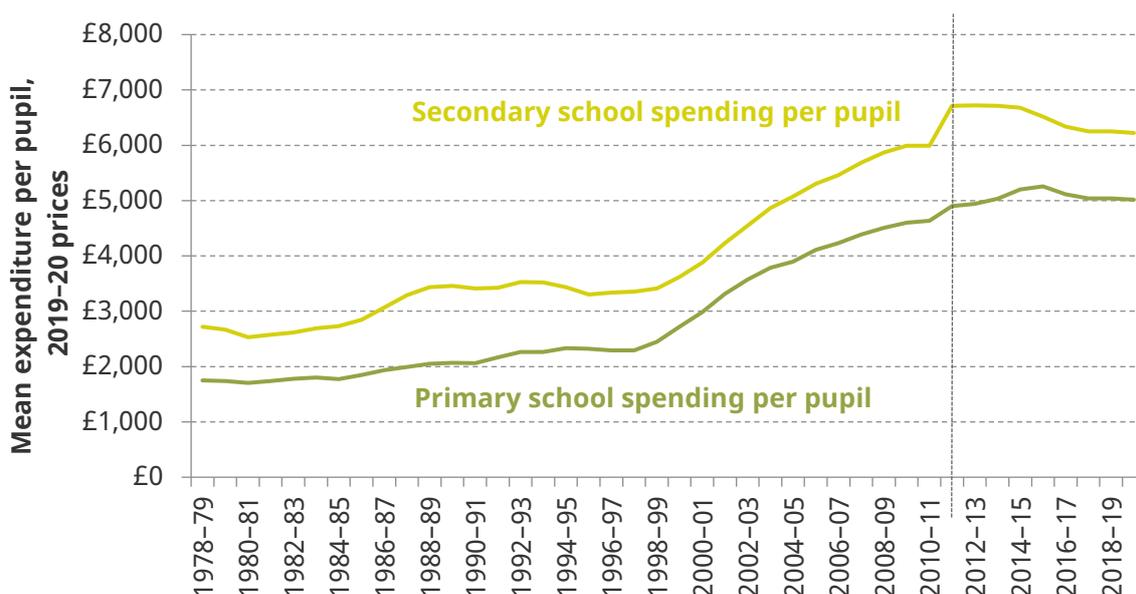
Primary and secondary school spending

Figure 3.2 shows our estimates for the level of primary and secondary school spending per pupil in England over time (in 2019–20 prices), together with projections up to 2019–20 implied by current policy announcements and projections (this excludes any effect of commitments made by the incoming Prime Minister, which are detailed in Section 3.3). 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, spending on special schools and spending in independent fee-charging schools.

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 2.3% 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 over 5% per year in real terms for primary and secondary schools over the 2000s. This led primary school spending per pupil to rise from £2,700 per pupil in 1999–2000 to reach £4,600 by 2009–10, whilst secondary school spending per pupil grew from £3,600 to £6,000 per pupil.

² This latter fall is slightly lower than the 5% fall quoted for Figure 3.2, which results from the fact that Figure 3.1 includes rises in funding for early years providers and excludes a small further fall in school spending per student in 2019–20.

Figure 3.2. Spending per pupil in primary and secondary schools (2019–20 prices)

Source: See Appendix B for a full list of sources and methods for school spending. HM Treasury deflators, June 2019 (<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-june-2019-quarterly-national-accounts>).

- 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, but the creation of the Pupil Premium (totalling just under £2.5 billion by 2015–16³) and lower-than-expected inflation ensured that total school spending per pupil was largely protected in real terms. Figure 3.2 shows a big apparent increase in 2011–12, which can be largely explained by inconsistencies in the data.⁴ Between 2011–12 and 2015–16, spending per pupil rose by 7% in real terms in primary schools and fell by about 3% in secondary schools. These differing trends can be accounted for by a range of factors working in different directions. First, the Pupil Premium was gradually introduced at a higher rate in primary schools. Second, funding will have moved to both primary and secondary schools as schools took on responsibility for services previously provided by local authorities (see Figure 3.1 for further details). Third, 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, which translated into a real-terms cut of around 4%. This was the first real-terms cut in per-pupil spending since the mid 1990s. These cuts were due to continue at a similar pace until 2019–20. However, the Department for Education made several new funding announcements in July 2017, 2018 and July 2019 (including both extra core funding and the creation of a teachers’ pay grant). Despite this, school funding per pupil fell by a further 0.5% in real terms between 2017–18 and

³ <https://www.gov.uk/government/publications/pupil-premium-2015-to-2016-allocations>.

⁴ These result from inconsistencies in the availability of data for academies (only available from 2011–12 and on a slightly different basis from maintained schools) and greater levels of funding and responsibilities devolved from local authorities to schools; see Belfield and Sibieta (2016) for more details.

2019–20, after accounting for the latest figures for inflation and pupil numbers. This equates to a total cut of about 5% since 2015–16.

Based on current policy and trends, primary school spending per pupil in 2019–20 will be about 2% above its level in 2011–12 and secondary school spending per pupil will be about 7%, or £500, lower than in 2011–12.

Both primary and secondary school spending per pupil will still be over 60% higher than in 2000–01. However, this is likely to be an overestimate of growth over time as these figures partly reflect transfers of responsibilities and funding from local authorities to schools. Since 2003–04, our comprehensive measure of school spending per pupil takes these changes into account. This rose by 14% in real terms between 2003–04 and 2018–19, which is about half of the equivalent growth in spending per pupil by individual schools (30%).

We cannot track this comprehensive spending figure before 2003–04. If we assume that the comprehensive figure grew in line with school-based spending between 2000–01 and 2003–04 and combine this with the growth that we observe from 2003–04 onwards, we estimate that the comprehensive measure of school spending per pupil grew by a total of 44% for primary schools and 42% for secondary schools between 2000–01 and 2019–20. This equates to an annual average real-terms growth rate of about 1.9% per year.

Even this figure is likely to be a slight overestimate, since the transfer of funding and responsibilities from local authorities to schools predates 2003–04. This means that the assumption that the comprehensive funding measure tracked the school-based spending measure before 2003–04 is likely to overstate actual growth in the comprehensive measure. Therefore, total school spending per pupil is unlikely to be more than about 40% higher in 2019–20 than it was in 2000–01.

Staffing costs

The spending trends quoted above are based on an economy-wide measure of inflation: the GDP deflator. But the actual costs faced by schools are likely to evolve differently in individual years. In particular, staffing costs make up about three-quarters of school budgets, so changes in public sector pay can have important consequences for resource pressures within schools.

In Figure 3.3, we therefore show real-terms changes in total school spending per pupil in two scenarios. The first assumes that schools' costs follow economy-wide inflation (as measured by the GDP deflator); this is equivalent to the spending figures presented so far in this chapter. The second scenario instead assumes that 75% of schools' costs change in line with average public sector pay per head (as faced by employers); the remaining 25% of costs still change with the GDP deflator. We do this separately for the period from 2010–11 to 2015–16 (corresponding to the coalition government) and from 2015–16 onwards.

Under the coalition government, school spending per pupil fell by about 5.5% in real terms between 2010–11 and 2015–16 judged against the GDP deflator, but by the lesser figure of 4.5% if we assume that staff costs grew in line with public sector pay per head. This results from the fact that growth in public sector pay per head (6% in cash terms between 2010–11 and 2015–16) was below that in economy-wide inflation (7.5%) over this period. The slower growth in public sector pay per head is linked to a two-year freeze in public sector

pay in 2011–12 and 2012–13 (excluding low-paid workers), and then the subsequent 1% cap on pay increases.⁵

Increases in employer pension contributions and National Insurance contributions in April 2015 and 2016, respectively, added to schools’ payroll costs, but these were partly balanced out by the fact that teacher salary increases were held at 1% per year up to 2018. From September 2018, the 1% public sector pay cap was lifted for teachers. Classroom teachers on the main pay scale (about 40% of teachers⁶) saw increases of 3.5% and other teachers received a 2% increase, while school leaders received a 1.5% rise. From September 2019, teachers received a 2.75% increase in salary scales. This must be afforded within 1.5% cash-terms growth in funding per pupil between 2018–19 and 2019–20.

Figure 3.3. Real-terms changes in total school spending per pupil under different assumptions for inflation faced by schools



Note and source: Growth in total spending per pupil as reported in Figure 3.1, plus expected cash-terms growth in 2019–20 as implied by Figure 3.2. When calculating the real-terms growth in costs faced by schools, we also add the value of the Teachers’ Pension Employer Contribution Grant in 2019–20. Growth in the GDP deflator is taken from HM Treasury deflators, June 2019 (<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-june-2019-quarterly-national-accounts>). We assume that 75% of school costs are staff costs. Growth in staff costs is assumed to follow growth in public sector pay per head as shown in Office for Budget Responsibility, *Economic and Fiscal Outlook*, various years: 2017–18 to 2019–20 taken from March 2019 forecast (<https://obr.uk/efo/economic-fiscal-outlook-march-2019/>), 2016–17 taken from March 2018 forecast (<http://obr.uk/efo/economic-fiscal-outlook-march-2018/>), 2015–16 taken from November 2016 forecast (<http://obr.uk/efo/economic-and-fiscal-outlook-november-2016/>), 2014–15 taken from March 2015 forecast (<http://obr.uk/efo/economic-fiscal-outlook-march-2015/>), 2013–14 taken from March 2014 forecast (<http://obr.uk/efo/economic-fiscal-outlook-march-2014/>), 2012–13 taken from December 2013 forecast (<http://obr.uk/efo/economic-fiscal-outlook-december-2013/>), 2011–12 taken from March 2013 forecast (<http://obr.uk/efo/economic-and-fiscal-outlook-march-2013/>) and 2010–11 taken from March 2012 forecast (<http://obr.uk/efo/economic-and-fiscal-outlook-march-2012/>).

⁵ Public sector pay per head still managed to grow by 6% because low-paid workers were excluded from the initial freezes in 2011–12 and 2012–13, and because of compositional shifts in the public sector workforce.

⁶ Authors’ calculations using School Workforce Census Statistics, November 2014 (<https://www.gov.uk/government/statistics/school-workforce-in-england-november-2014>).

From September 2019, schools face additional costs in the form of increased employer contributions to the Teachers' Pension Scheme, which rise from 16.4% to 23.6% of gross salary each year.⁷ In contrast to the rises in 2015, the government has announced that it will compensate schools for these increases in the form of a grant (the Teachers' Pension Employer Contribution Grant), to be worth £848 million from September 2019 to March 2020.⁸

Combining all these factors, between 2015–16 and 2019–20 the OBR expects that public sector pay per head will grow by 12.2% in cash terms, outpacing growth in the GDP deflator (8.4%) by about 4 percentage points. This places additional pressure on school budgets. Using the GDP deflator, we expect that total school spending per pupil will have fallen by about 3.4% in real terms between 2015–16 and 2019–20 (*excluding* the Teachers' Pension Employer Contribution Grant⁹), but by the higher figure of about 4.2% if we assume staff costs grew in line with public sector pay per head (and *including* the Teachers' Pension Employer Contribution Grant in school spending).

Looking over the full period (2010–11 to 2019–20), we find that total school spending per pupil would have fallen by about 8.7% in real terms judged against the GDP deflator and by about 8.5% in real terms if we assume that schools' staff costs grew in line with public sector pay per head. The lower and higher relative growth rates in public sector pay per head before and after 2015–16, respectively, are largely offsetting when we consider the period as a whole.

Staffing levels

With school spending per pupil falling in real terms over recent years, a key question is how these cuts have translated into the resources employed by schools. Ideally, we would track what has happened to spending through different budget lines, such as staffing or programme spending. While data limitations preclude a full analysis, we can show how numbers of different types of staff have changed over the last 20 years. This covers around three-quarters of school budgets and will reflect both schools' own choices and policy changes requiring schools to employ particular types of staff.

For this analysis, we split school staff into three groups: teachers, teaching assistants, and other staff (including administrative, caretaking and pastoral staff). Figures 3.4 and 3.5 illustrate what has happened to staff numbers within these categories since 2000. Figure 3.4 shows the actual (full-time equivalent) levels for primary and secondary schools, whilst Figure 3.5 shows the pupil:teacher ratios (panel a) and the ratio between pupil numbers and other types of staff (panel b). Figures relate to January of each year up to 2010 and November thereafter. As a result, there is a nearly two-year gap between the figures for 2010 and 2011.

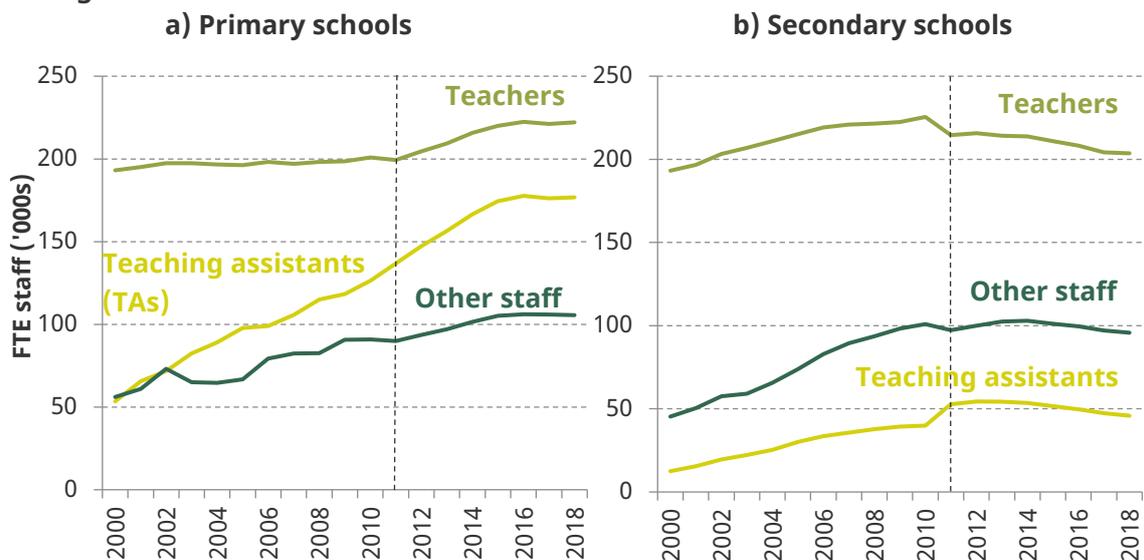
There are markedly different trends across different types of staff and across primary and secondary schools.

⁷ Excludes the administrative levy of 0.08% charged by the Teachers' Pension Scheme.

⁸ <https://www.gov.uk/government/publications/teachers-pension-employer-contribution-grant-tpcgc>.

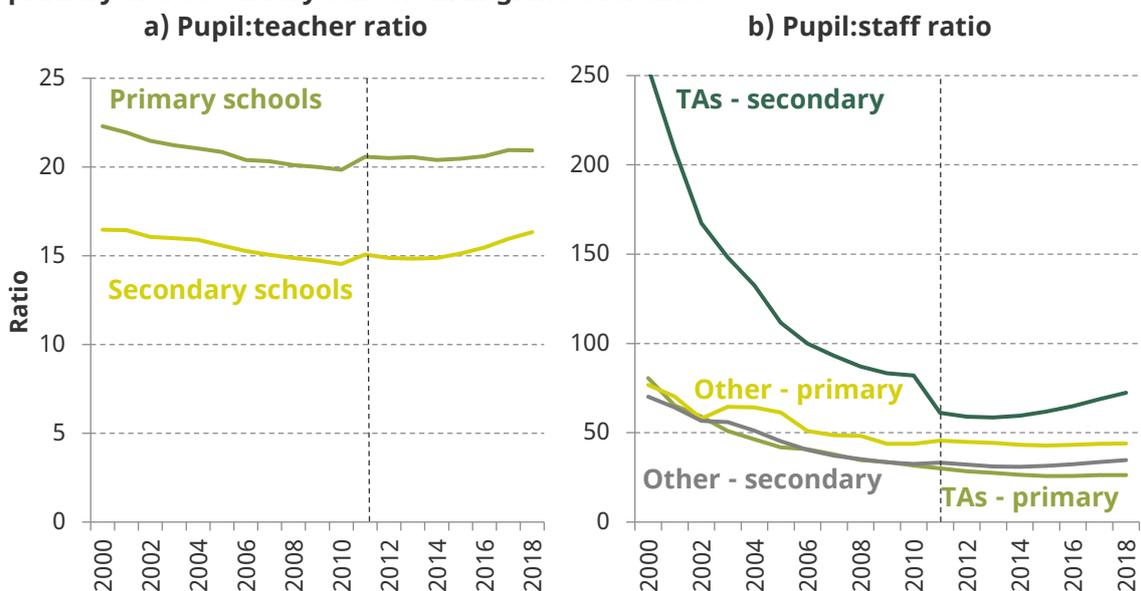
⁹ We have not included this grant in our calculations for school spending judged against the GDP deflator as it is explicitly dedicated to meet the additional costs for schools as a result of the increase in employer contributions. There is also no guarantee that this funding will continue into the next spending review period.

Figure 3.4. Full-time-equivalent staff in state-funded primary and secondary schools in England over time



Source: Department for Education, 'School workforce in England: November 2017' (<https://www.gov.uk/government/statistics/school-workforce-in-england-november-2017>); Department for Children, Schools and Families, 'School workforce in England: January 2008' (<https://webarchive.nationalarchives.gov.uk/20120905141217/http://www.education.gov.uk/researchandstatistics/statistics/statistics-by-topic/teachersandschoolworkforce/a00195870/school-workforce>). Years relate to January up to 2010 and November thereafter. 'Other staff' is imputed before 2011 based on the level of other and auxiliary staff recorded in 2011 and the growth rate in other staff up to 2011 (data on auxiliary staff were not recorded until 2011).

Figure 3.5. Ratios between pupils and full-time-equivalent staff in state-funded primary and secondary schools in England over time



Source: See Figure 3.4 for sources of staffing numbers. Teaching assistant numbers are re-indexed to 2011 from 2011 onwards due to a methodological change in their calculation in that year. Department for Education, 'Schools, pupils and their characteristics', January 2019 (<https://www.gov.uk/government/statistics/schools-pupils-and-their-characteristics-january-2019>) and January 2010 (<https://www.gov.uk/government/statistics/schools-pupils-and-their-characteristics-january-2010>).

- **Teachers** – Between 2000 and 2010, teacher numbers were largely constant at around 200,000 in primary schools, whilst they grew by around 30,000 or about 17% in secondary schools. With falling primary school pupil numbers and largely constant secondary school pupil numbers, the number of teachers grew relative to the number of pupils. The pupil:teacher ratio fell from 22.3 to 19.8 in primary schools and from 16.5 to 14.5 in secondary schools.¹⁰

Between 2010 and 2018, the number of primary school teachers has risen by 20,000 or 11% to reach around 220,000. However, since pupil numbers rose even faster at 17% (see Figure 1.2), the number of teachers has fallen relative to the number of pupils in primary schools. This has led to a rise in the pupil:teacher ratio from 19.8 to 20.9, about the same level as in 2005. In secondary schools, teacher numbers have fallen back by 20,000, reversing much of the growth up to 2010. As a result, there are currently around 200,000 teachers in secondary schools. Furthermore, with no net change in the number of pupils between 2010 and 2018, the pupil:teacher ratio has risen back up to 16.3, about the same level as in 2000.

As a result of these trends, class sizes have risen in both primary and secondary schools since 2010: from average class sizes in primary schools of 26 pupils in January 2010 to 27 pupils in January 2019, and from 20 to 22 pupils in secondary schools over the same period.¹¹

- **Teaching assistants** – The number of teaching assistants in primary schools has grown substantially over the last 20 years. Between 2000 and 2010, numbers more than doubled from 50,000 to over 125,000. Despite the squeeze on funding after 2010, numbers continued to increase to nearly 180,000 by 2018. This represents a 50,000 or 40% rise since 2010. Whilst significant, this is still smaller than the 75,000 rise that occurred between 2000 and 2010.

Much of the increase in teaching assistant numbers over time has been part of a deliberate policy to provide more one-to-one support for pupils with additional or special educational needs, and to provide support to teachers. This has led the number of pupils per teaching assistant to fall from 81 for every teaching assistant in 2000 to 32 in 2010 and to 26 pupils for every teaching assistant in 2018. There is now effectively one teaching assistant for every primary school class.

In secondary schools, there are far fewer teaching assistants, though their number did still grow rapidly up to 2010. In stark contrast to the growth in primary schools, numbers of teaching assistants fell in secondary schools by about 13% between 2011 and 2018 (though still remained close to 50,000). This means that both teacher and teaching assistant numbers fell relative to secondary pupil numbers between 2010 and 2018.

The different trends in teaching assistant numbers for primary and secondary schools are likely to partly result from differences in the funding trends at each stage. Between 2011–12 and 2019–20, there was a 2% real-terms rise in spending per pupil in primary

¹⁰ Note that this represents the ratio of pupils to teachers rather than actual class sizes. Average class sizes are around 27 in primary schools and about 22 in secondary schools.

¹¹ Table 7a of <https://www.gov.uk/government/statistics/schools-pupils-and-their-characteristics-january-2019>.

schools as compared with a 7% fall in secondary schools. However, the scale of the increase in numbers in primary schools (a 40% rise between 2010 and 2018) is still surprising given the squeeze on funding and may suggest that primary school head teachers' views on the best mix of staffing have been changing over time. It is also possible that head teachers have responded to the funding squeeze by increasing teaching assistant numbers by much more than the number of teachers, maybe because teaching assistants are generally employed on much lower salaries and on more flexible terms. Indeed, the number of teachers and teaching assistants combined grew by 22% between 2010 and 2018, more than the 17% growth in pupil numbers (see Figure 1.2).

- **Other staff** – This group covers a much wider range of staff, including administrative staff, caretakers and pastoral support staff. Such staff are used more in secondary schools than primary schools, with about one member of staff for every 45 pupils in primary schools and about one for every 35 pupils in secondary schools. Numbers grew rapidly in both sectors over the 2000s, from about 60,000 in 2000 to around 90,000 in 2010 across primary schools and from 45,000 to around 100,000 in secondary schools.¹² Since 2010, the number of other staff has continued to grow in primary schools, by about 16% between 2010 and 2018, matching the growth in pupil numbers. In secondary schools, the number of other staff has fallen by about 5% and has thus fallen slightly relative to the number of pupils.

In summary, the large increases in spending per pupil up to 2010 translated into substantial increases in the number of teaching assistants and other staff in both primary and secondary schools, as well as modest increases in the number of teachers relative to pupil numbers. The squeeze on school spending since 2010 has been partly delivered through a fall in the number of teachers relative to pupil numbers in both primary and secondary schools, which has led to larger class sizes. However, growth in the number of teaching assistants in primary schools has continued largely unabated, with numbers growing by 50,000 or 40% between 2010 and 2017. This is likely to have been driven by other policy pressures, over and above funding concerns. In secondary schools, by way of contrast, the number of teaching assistants has fallen by 13% since 2011.

3.2 Comparisons across the UK

Up to this point, all our analysis has focused on England. In Figure 3.6, 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.

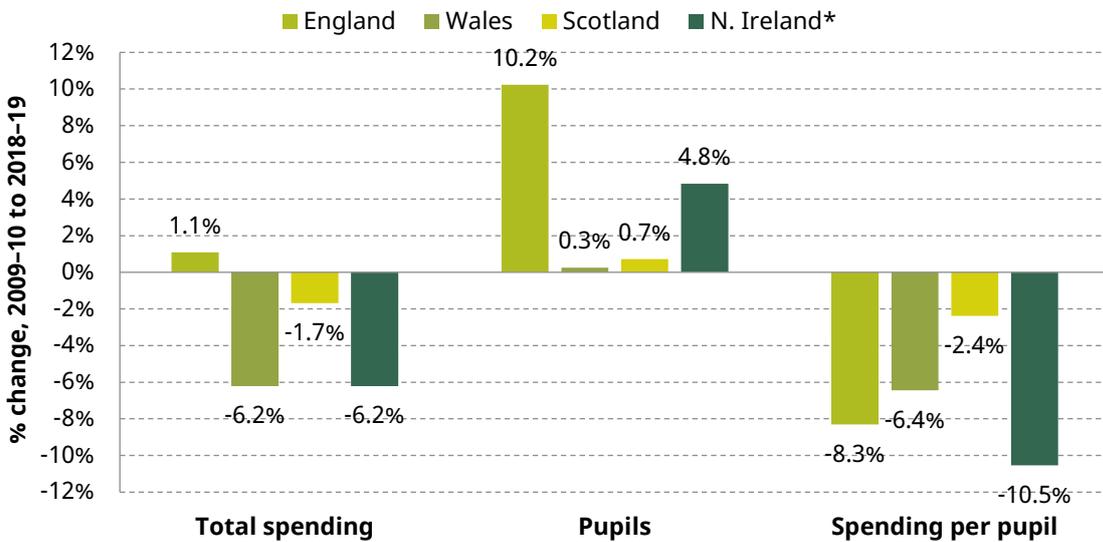
This shows that real-terms cuts in school spending per pupil have been largest in Northern Ireland (11%) and England (8%). Both countries have seen fast growth in pupil numbers. In England, a largely constant budget in real terms translated into cuts in spending per pupil as a result of population growth. In Northern Ireland, the total budget fell in real terms, meaning that population growth led to even larger cuts in spending per pupil.

¹² Auxiliary staff numbers are imputed between 2000 and 2010.

Cuts have been smaller in Wales (6%) and Scotland (2%), where pupil numbers have been steady. Both countries saw cuts to total school spending (around 6% in Wales and 2% in Scotland). However, because of the lack of growth in pupil numbers, these translated into smaller falls in spending per pupil.

Figure 3.7 compares the level of spending per pupil over time across the four nations of the UK. Across the whole period, school spending per pupil is consistently highest in Scotland and lowest in Northern Ireland. In 2018-19, school spending was close to £6,000 per pupil in both England and Wales, but about £600 higher in Scotland and £500 lower in Northern Ireland.

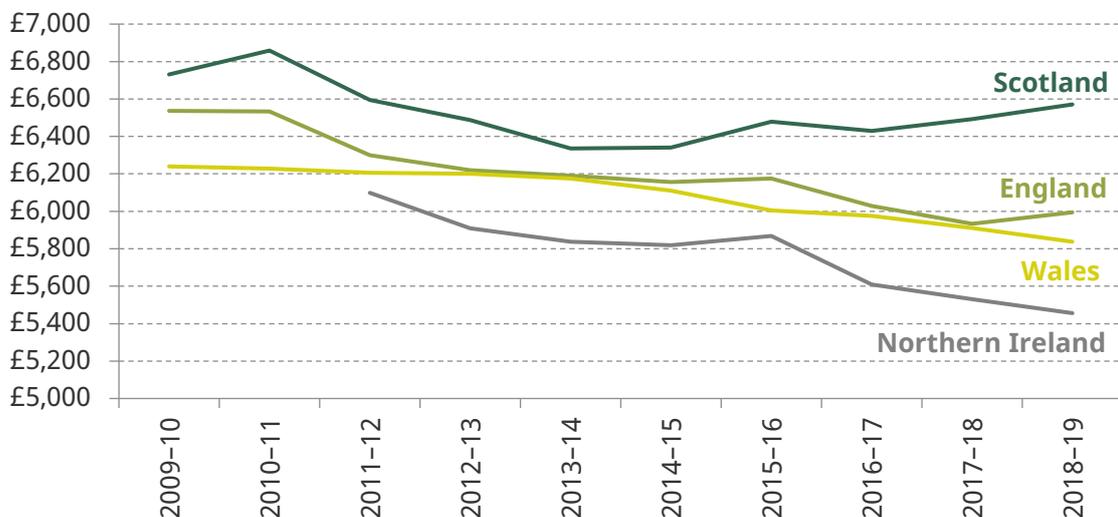
Figure 3.6. Real-terms change in total school spending, spending per pupil and pupil numbers in England, Wales, Scotland and Northern Ireland, 2009-10 to 2018-19



* Northern Ireland only covers changes from 2011-12 to 2018-19.

Source: See Figure 3.7.

Figure 3.7. School spending per pupil across England, Wales, Scotland and Northern Ireland (2019-20 prices)



Source: See next page.

Source to Figure 3.7

Figures for England are 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 2018–19 nowcasted based on Welsh Government, 'Local authority budgeted expenditure on schools' (<https://gov.wales/local-authority-budgeted-expenditure-schools>). 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 2018 (<https://gov.wales/schools-census-results-january-2018>) and Stats Wales, 'Pupil projections' (<https://statswales.gov.wales/Catalogue/Education-and-Skills/Schools-and-Teachers/Schools-Census/Pupil-Projections>). 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/POBESStats>), with full-time-equivalent pupil numbers calculated as the sum of pupils in state-funded schools and early education centres (<https://www2.gov.scot/Topics/Statistics/Browse/School-Education/dspupcensus>). 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 the Salisbury Review (<https://www.education-ni.gov.uk/articles/common-funding#toc-3>). Northern Ireland pupil numbers relate to full-time-equivalent pupils at all schools and pre-school education centres, excluding independent schools (<https://www.education-ni.gov.uk/publications/school-enrolments-northern-ireland-summary-data>). HM Treasury deflators, June 2019 (<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-june-2019-quarterly-national-accounts>).

In terms of trends over time, we see steady declines across England, Wales and Northern Ireland. In Scotland, there was a decline of 6% between 2009–10 and 2013–14, followed by a rise of about 4% since 2013–14. As a result, the net decline is notably less in Scotland, which is the only country in the UK to have seen a rise in school spending since 2013–14.

3.3 Challenges for the next spending review

The government is due to hold a mini spending review in September 2019, which will set departmental budgets for 2020–21. A more detailed multi-year spending review will be held in 2020. We therefore set out the overall pressures on school spending in England for the next three years up to 2022–23, the original planned time horizon for this year's spending review.

We also set out the costs of various options under active consideration by policymakers across the political spectrum. At the last general election, the Labour Party committed to reversing past cuts to school spending per pupil and to protect it in real terms going forwards. The incoming Prime Minister has also committed to reversing past cuts to school spending per pupil and to providing an additional £4.6 billion in spending by 2022–23 to meet this commitment. In addition, the Prime Minister has committed to increasing minimum funding levels for primary and secondary schools.

In what follows, we set out the overall likely cost of these and other commitments. We show this for both 2020–21 (the focus of this year's mini spending review) and 2022–23 (the original end date for the planned multi-year spending review). We also discuss ongoing funding pressures related to funding formula reform, teachers' pensions and the high-needs budget.

Options for school spending in the next spending review

The main pressure on school spending is the number of pupils. As shown in Figure 1.2, the number of pupils in primary schools is expected to fall by 1% between 2019–20 and 2022–23, whilst the number of secondary school pupils is expected to grow by nearly 7% over the same period. Combining these figures gives a figure of 1.9% growth in pupil numbers between 2019–20 and 2022–23. However, it is important to note that all of this growth is driven by numbers of secondary school pupils, who are funded at a higher rate than primary school pupils. No change in real funding per pupil would already mean a total spending increase of about £1 billion by 2022–23.

In Table 3.2, we cost various scenarios for school spending in England in 2020–21 and 2022–23 based on a current level of school spending of £44 billion in 2019–20. This level of spending excludes early years funding and sixth-form funding, which are generally treated separately at the time of spending reviews (and are examined in more detail in Chapters 2 and 4, respectively). All figures are shown relative to expected real-terms spending in 2019–20. We do not include the costs of a cash-terms freeze in spending per pupil (the policy in place between 2015–16 and 2017–18) as this would result in a fall in total spending and all the main political parties seem committed to a real-terms rise in school spending.

A real-terms freeze in school spending per pupil would cost about £0.5 billion in 2020–21, rising to £1.0 billion by 2022–23.

As a second scenario, we calculate the cost of reversing real-terms cuts to school spending per pupil of 5% since 2015–16 and then maintaining this in real terms up to 2022–23. This would cost about £2.7 billion to achieve this goal straightaway in 2020–21, rising to £3.3 billion by 2022–23, over and above expected spending of £44 billion in 2019–20. This would take spending per pupil back to the level last seen in 2015–16.

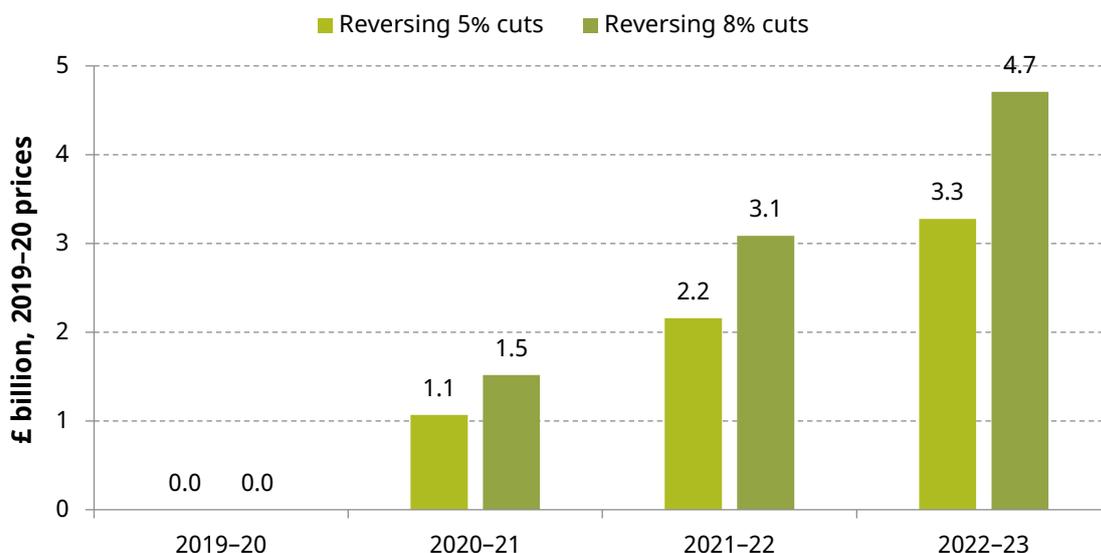
As our third scenario, we calculate the cost of reversing cuts since 2009–10 and protecting spending per pupil at this new higher level up to 2022–23. This is closest to the commitments made by the Labour party at the last general election and to commitments made by the incoming Prime Minister.

We calculate that total school spending per pupil fell by 7% in real terms between 2009–10 and 2018–19 (from Figure 3.1 after excluding school sixth-form funding) and that spending per pupil fell by 0.5% in real terms in 2019–20 (from Figure 3.2). Combining these figures equates to a total baseline cut of 8% in real terms between 2009–10 and 2019–20. Reversing these cuts and protecting spending per pupil in real terms going forwards

Table 3.2. Costs of various options for school spending in 2020–21 and 2022–23

Option	Cost in 2020–21 (2019–20 prices)	Cost in 2022–23 (2019–20 prices)
1. Protect school spending per pupil in real terms	£0.5bn	£1.0bn
2. Reverse 5% cuts since 2015–16, protect in real terms	£2.7bn	£3.3bn
3. Reverse 8% cuts since 2009–10, protect in real terms	£4.1bn	£4.7bn

Note and source: See Appendix B.

Figure 3.8. Profile for extra school spending assuming constant real-terms growth rates up to 2022–23

Note and source: See Appendix B.

would cost about £4.1 billion in 2020–21 and about £4.7 billion by 2022–23, both in today's prices. This would take school spending per pupil back to its level in 2009–10.

These scenarios show the cost of reversing past cuts straightaway in 2020–21. Policymakers may instead choose to phase in any increases gradually over time, leaving schools more time to decide how to spend the extra resources. Indeed, the Prime Minister committed to reversing past cuts by 2022. Figure 3.8 illustrates how this could be achieved with a constant real-terms growth rate between 2019–20 and 2022–23. Reversing past cuts of 5% would require average real-terms growth of 2.4% per year and imply an initial increase in spending of £1.1 billion in 2020–21. Reversing cuts of 8% would require the higher growth rate of 3.4% per year and an initial increase of £1.5 billion in 2020–21.

Teachers' pensions grant

All these figures exclude the new grant to schools to cover the additional costs of higher employer contributions to the teacher pensions from September 2019, which will rise from 16.4% to 23.6% of gross salary.¹³ State-funded schools will be compensated for these additional costs through the Teachers' Pension Employer Contribution Grant, which will be worth £848 million from September 2019 to March 2020.¹⁴ The expected levels of teachers' pensions are unaffected by this change.

There is currently no guarantee that this funding will continue beyond this year. To continue compensating schools for these additional costs would cost about £1.5 billion over a full year, over and above any additional spending discussed above. The costs of such compensation would likely rise over time in line with growth in teacher salaries.

¹³ Excludes the administrative levy of 0.08% charged by the Teachers' Pension Scheme.

¹⁴ <https://www.gov.uk/government/publications/teachers-pension-employer-contribution-grant-tpecg>.

High-needs budget

One of the biggest pressures facing schools and local authorities is spending on high needs or pupils with special educational needs and disabilities (SEND). The number of pupils with statements of special educational needs (SEN) or education, health and care (EHC) plans in state-funded schools rose from 220,000 in January 2016 to about 250,000 in January 2019, or by about 14%.¹⁵ This growth is a relatively recent phenomenon, the share of pupils with a statement of special education needs or an EHC plan rose from 2.8% to 3.0% over the same period, following a long time when it stayed at 2.8%.

The high-needs funding block rose from £5.3 billion in 2015–16 to about £6.3 billion in 2019–20, or by about 18% in cash terms. If the number of pupils with SEN statements or EHC plans continues to rise at about 5% per year, the number of pupils receiving such support will have risen by 20% over four years. This would further imply funding per pupil falling by about 1% in cash terms or by about 8% in real terms.

This does not necessarily mean that *spending* per pupil with high needs has fallen by 8% in real terms. Spending on high needs is set by local authorities and many have been topping up high-needs spending from their core schools budget. However, it is undoubtedly true that funding for high needs has been squeezed and this has had further implications for core schools spending. Local authorities have also had less freedom to top up their high-needs budgets from April 2018. As a result, the high-needs budget is under severe pressure.

National funding formula

In April 2018, the government implemented a new national funding formula for schools in England. This sought to maintain existing funding priorities, such as extra funding for more deprived schools and funding uplifts for areas that have to pay London weighting for teacher salaries. Whilst the formula is at school level, it is only used to determine the amount of money that is allocated to local authorities. It is still the case that local authorities are free to set their own funding formula for all state-funded schools in their area (including academies and free schools). They can set a formula totally aligned with the new national funding formula, or they can choose to set their own priorities, subject to their overall allocation. The government has set out an aspiration to move towards a full school-level formula in the future, but with no specific timetable.

This new funding formula represents a significant achievement. It ensures that school funding allocations to all local authorities in England are now based on measures of need and costs, the first time this has been the case for nearly 15 years. This effectively ended a postcode lottery in school funding in England. There are still differences in per-pupil funding across local authorities in England. Local authorities receive higher levels of per-pupil funding if they have higher levels of deprivation and/or because they have to pay London weighting. These are deliberate differences.

The incoming Prime Minister has made a commitment to introduce new minimum funding levels of £4,000 for primary schools and £5,000 for secondary schools. The current national funding formula already has minimum funding levels of £3,500 for primary schools and £4,800 for secondary schools. However, these are only used to determine funding allocated to local authorities, which can choose to ignore them in their own

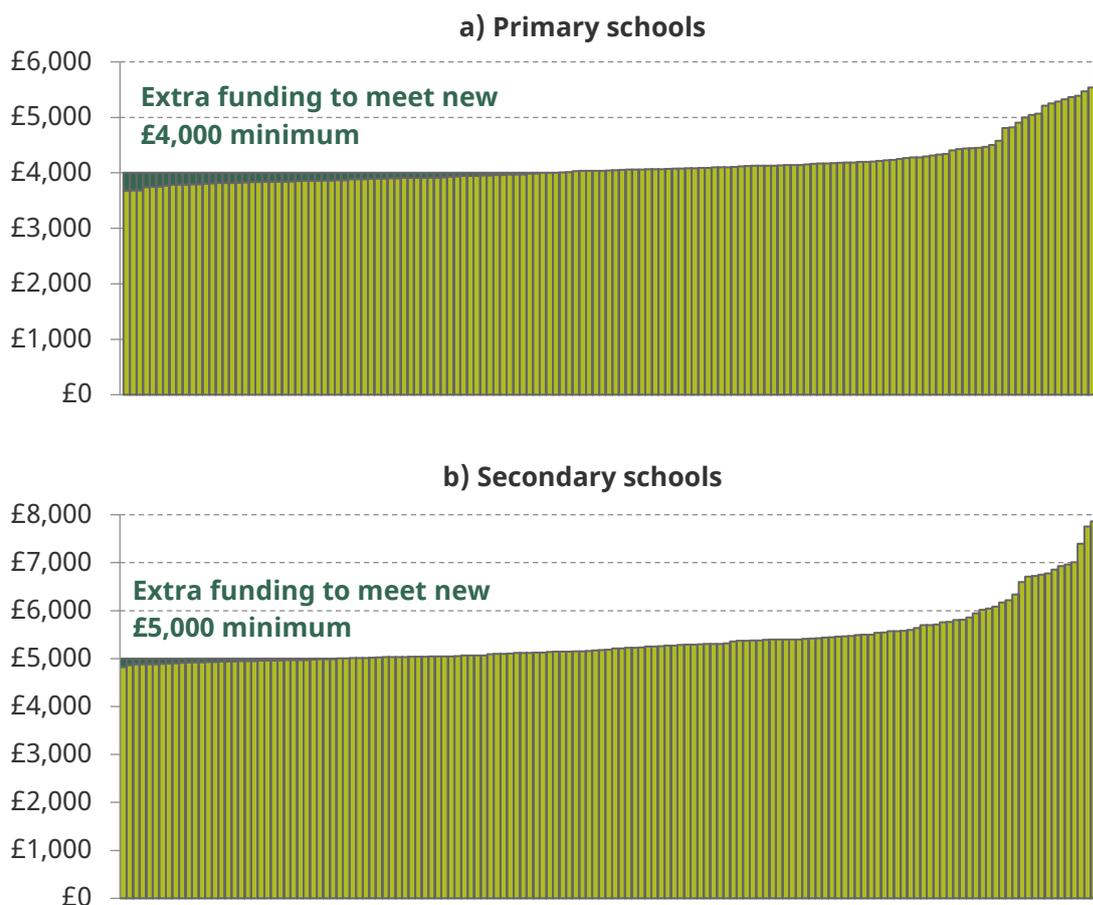
¹⁵ <https://www.gov.uk/government/statistics/special-educational-needs-in-england-january-2019>.

funding formulae. It is not yet clear whether the new higher minimum funding levels for schools would operate as they do at present, being largely advisory, or become compulsory.

To help deliver this commitment, the incoming Prime Minister has proposed to introduce minimum funding levels at the same level for all local authorities. His leadership campaign identified 64 local authorities where primary school funding per pupil was below £4,000 and a cost of just over £300 million to bring these local authorities up to the new floor. Similarly, it identified 33 local authorities where secondary school funding per pupil was below £5,000 and that bringing local authorities up to this floor would cost about £50 million.

Figure 3.9 shows the current spread of primary and secondary school spending per pupil implied by the new national funding for schools. Introducing these new floors of £4,000 and £5,000 for primary and secondary schools, respectively, would increase the level of funding in low-funded local authorities and reduce the spread of differences across local authorities. As can be seen, the effects are relatively small, particularly for secondary schools. However, the main effect would be to reduce the dispersion in funding across local authorities.

Figure 3.9. National formula funding levels by local authority, 2019-20



Source: Authors' calculations using national funding formula provisional allocations for 2019-20 (<https://www.gov.uk/government/publications/national-funding-formula-tables-for-schools-and-high-needs-2019-to-2020>).

Such a policy would have several other important effects. First, just over a year after the introduction of a national funding formula, it would reintroduce arbitrary floors for funding differences across areas and reduce the extent to which funding across local authorities is determined by measures of needs and costs. Indeed, for primary schools, nearly two-thirds of local authorities would end up with funding levels between £4,000 and £4,100 per pupil. This would make it more difficult to introduce a school-level national funding formula later as significant numbers of schools and local authorities would have their funding determined through other means. Second, as the extra funding would be largely targeted at local authorities with low levels of deprivation, it would reduce the extent to which funding is targeted at deprivation. For example, Bracknell Forest, West Sussex, Leeds and Doncaster would all end up with primary school funding levels of £4,000 per pupil, despite the fact that the proportion of pupils eligible for free school meals in Doncaster and Leeds (close to 20%) is approximately double that in Bracknell Forest and West Sussex (less than 10%). Third, it would make it more difficult to introduce minimum funding levels at the same level at the school level. The only way local authorities receiving the minimum could achieve this would be to allocate identical per-pupil amounts to all schools in their area, which would likely require cuts to some, currently higher-funded, schools. It would be more sensible to have a school-level minimum below any local authority minimum.

A different, and potentially more coherent, approach would be to use any extra funding to increase the basic amounts that exist in the national funding formula. These effectively already establish minimum funding levels. At the moment, these basic amounts are £2,747 for primary school pupils, £3,863 for pupils in years 7–9 and £4,386 for pupils in years 10 and 11. If the additional £4.6 billion proposed for schools by 2022–23 were used to increase the basic amounts per pupil, this would allow for a £650 increase in each of these basic amounts.¹⁶ Such an increase would reduce the need for any minimum funding levels, or at least they would only apply in a small number of cases.

3.4 Summary

School spending per pupil has fallen by about 8% in real terms between 2009–10 and 2019–20. This is the largest fall in school spending per pupil since at least the 1970s. Spending directly allocated to schools has grown substantially over time, but this partly reflects transfers of responsibilities and funding from local authorities to schools. There are also good reasons to believe that schools' costs have risen faster than overall inflation, given rises in employer National Insurance and pension contributions in 2015 and 2016.

A large part of these cuts were delivered through cuts to spending on local authority services and sixth-form funding, which have fallen by 57% and 30% since 2009–10 in real terms, respectively. Schools in England have also partly delivered cuts by allowing class sizes to rise. At the same time, primary schools have prioritised continued rapid growth in the number of teaching assistants, while secondary schools have also seen falls in the number of teaching assistants and other staff.

There are a range of ways policymakers could choose to ease pressure on school budgets in the upcoming spending reviews for next year and future years, but none comes cheap.

¹⁶ This excludes any effects from reduced spending elsewhere in the formula as a result, such as through the existing minimum funding levels.

Reversing cuts of 5% since 2015–16 and protecting spending per pupil in real terms would cost about £3.3 billion by 2022–23, whilst it would cost about £4.7 billion if policymakers reversed cuts of 8% since 2009–10. Continuing to protect schools from increases in employer pension contributions would cost a further £1.5 billion. Not doing so would reduce schools' purchasing power by about 3% in a single year.

Cuts to school spending have been seen right across the UK. However, cuts to school spending have been lower in Scotland (2%) and Wales (6%) between 2009–10 and 2018–19, largely due to steady pupil numbers. It is no coincidence that cuts have been larger in England (8%) and Northern Ireland (11%), where pupil numbers have risen faster. If policymakers in England chose to allocate more funding to schools, this would likely also increase funding available to schools in Wales, Scotland and Northern Ireland through the Barnett Formula.

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 3.2. 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 four main data sources for expenditure: CIPFA Education Statistics Actuals between 1978–79 and 1999–2000; schools' Section 52/251 returns between 1999–2000 and 2015–16; academies' financial returns from 2011–12 to 2015–16; and national school funding allocations from 2016–17 to 2019–20.

The CIPFA Education Statistics Actuals compiles 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 primary¹⁷ and secondary schooling.¹⁸ The CIPFA data include all expenditure by LAs on schooling.¹⁹ 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 2015–16, 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

¹⁷ 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.

¹⁸ 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.

¹⁹ 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 (e.g. 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.

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 (e.g. January 2013 for financial year 2012–13).

Figures for academies are not included in the Section 52/251 returns, and financial returns for academies²⁰ are only available from 2011–12 to 2015–16. 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.²¹ With the exception of 2011–12, we only use spending recorded for individual academies, which will exclude any money retained centrally by multi-academy trusts. 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).²² 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 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 2015–16. 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.

²⁰ Including both sponsor and converter academies. We only count ongoing funding for day-to-day spending, thus excluding additional start-up grants.

²¹ In 2011–12, data for schools that are part of multiple-academy trusts are only available for the trust as a whole. We can therefore only calculate spending per pupil for the trust as a whole in 2011–12. For other years, data are available for all academies at an individual school level.

²² Available at <http://www.ons.gov.uk/ons/guide-method/geography/beginner-s-guide/glossary/geography-gazetteer.pdf>.

- 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 2015–16. We then project the series up to 2019–20 by making use of the growth rate in total school funding per pupil between 2015–16 and 2019–20. This includes the Dedicated Schools Grant,²³ Pupil Premium allocations,²⁴ Teachers’ Pay Grant²⁵ and pupil number projections.²⁶

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 is calculated from Section 52/251 out-turn data up to 2012–13 and Section 52/251 budget data from 2013–14 to 2018–19. For years 2010–11 to 2012–13, we additionally include academies’ recoupment funding from Dedicated Schools Grant allocations. Pupil Premium allocations 2011–12 to 2018–19 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.

²³ 2016–17 (<https://www.gov.uk/government/publications/dedicated-schools-grant-dsg-2016-to-2017>), 2017–18 (<https://www.gov.uk/government/publications/dedicated-schools-grant-dsg-2017-to-2018>), 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>).

²⁴ 2016–17 (<https://www.gov.uk/government/publications/pupil-premium-conditions-of-grant-2016-to-2017>), 2017–18 (<https://www.gov.uk/government/publications/pupil-premium-conditions-of-grant-2017-to-2018>) and 2018–19 (<https://www.gov.uk/government/publications/pupil-premium-conditions-of-grant-2018-to-2019>).

²⁵ <https://www.gov.uk/government/publications/teachers-pay-grant-methodology/teachers-pay-grant-methodology>.

²⁶ <https://www.gov.uk/government/statistics/national-pupil-projections-july-2018>.

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 2019 and Department for Education, 'National pupil projections', July 2018. We then additionally include pupils aged 3-4 in private, voluntary and independent settings from Department for Education, 'Education provision: children under 5', January 2010 to January 2019.

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