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Institute for Fiscal Studies

IFS Report R204

**Christine Farquharson
Luke Sibieta
Imran Tahir
Ben Waltmann**

2021 annual report on education spending in England



**Economic
and Social
Research Council**



2021 annual report on education spending in England

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Foreword from the Nuffield Foundation

The Institute for Fiscal Studies' annual report on education spending in England has become the most authoritative and accessible source of information on the topic. Over the last four years, the reports – all of which have been funded by the Nuffield Foundation – have played a key role in shaping policy and debate, not least by providing the evidence that led the government to increase school spending in 2019.

There are at least three reasons why these reports are particularly important. First, public spending decisions are subject to competing demands, and there needs to be a strong evidence base for any further increases to the education budget, which is now pushing towards £100 billion. The IFS analysis meets that need.

Second, the distribution of the education budget across the different parts of the system is not – and should never be – taken as a given. At different points in the last two decades, more funding has been directed to primary education, there have been increases in public funding of early years education, rebalancing of public and private funding in early years and higher education, and plans to increase public expenditure on further education. Such strategic changes should be informed by high-quality analysis.

Third, there is a progressive element to some public spending on education. For example, pupils from lower-income families are allocated more funding, most notably through the Pupil Premium. At times, this can be counterbalanced by other policies, such as one interpretation of 'levelling up' of school funding in which areas of the country with fewer disadvantaged children benefit. Even prior to the pandemic, there was emerging evidence that the attainment gap between disadvantaged pupils and their peers was starting to widen again. Other research funded by the Foundation suggests that the pandemic is likely to have exacerbated this, and that funding allocated to address it – while useful – is far from adequate.

This report illuminates these issues and provides a welcome look ahead at the challenges facing decision-makers in the coming years. It also provides a bedrock for a range of additional outputs, including reports on each stage of education published soon after new data are released, rapid responses to major policy announcements, and deeper dives into specific topics such as the geographic distribution of education spending. All these outputs are available online at <https://ifs.org.uk/education-spending>, which we hope will become an established one-stop shop for policymakers, educators and the wider public and help to improve understanding of the funding issues and challenges across the education system.



Josh Hillman
Director of Education, Nuffield Foundation

Preface

This report is the fourth in a series of annual reports on education spending in England. The authors gratefully acknowledge the support of the Nuffield Foundation, which has funded this series of annual reports (grant number EDO/FR-000022637). The Nuffield Foundation is an independent charitable trust with a mission to advance social well-being. It funds research that informs social policy, primarily in Education, Welfare and Justice. It also funds student programmes that provide opportunities for young people to develop skills in quantitative and scientific methods. The Nuffield Foundation is the founder and co-funder of the Nuffield Council on Bioethics, the Ada Lovelace Institute and the Nuffield Family Justice Observatory. The Foundation has funded this project, but the views expressed are those of the authors and not necessarily of the Foundation. Visit www.nuffieldfoundation.org.

The authors also thank the Economic and Social Research Council for support via the ESRC Centre for the Microeconomic Analysis of Public Policy (grant number ES/T014334/1), which underpins much of IFS's research.

The authors would like to thank the members of the advisory group, officials from the Department for Education and HM Treasury, and colleagues at IFS, who have commented on and greatly informed the analysis in this report.

This report uses a range of data releases from the Department for Education, its predecessors, related agencies and non-departmental bodies. These are all listed in the sources below individual figures and/or in the methods section of our new microsite housing all our analysis of education spending (<https://ifs.org.uk/education-spending>). Modelling in the early years sections uses the 2017–18 Family Resources Survey, made available by the Department for Work and Pensions, which bears no responsibility for the interpretation of the data in this report. The IFS graduate earnings model draws on National Pupil Database data linked to data from the Higher Education Statistics Agency (HESA). It also uses data from the Family Resources Survey and the University of Essex's British Household Panel Survey. Several chapters use data from the Office for National Statistics (ONS) Quarterly Labour Force Survey. The National Pupil Database is Crown Copyright and made available by the Department for Education. HESA data are Copyright Higher Education Statistics Agency Limited. Neither the Department for Education, Higher Education Statistics Agency Limited nor HESA Services Limited can accept responsibility for any inferences or conclusions derived by third parties from data.

The views and analysis presented in this report are those of the authors alone. Any errors or omissions are also their responsibility.

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Executive summary

Total spending

- 1 Before the pandemic, total spending on education in the UK stood at £104 billion or 4.4% of national income in 2019–20 (including the likely cost of issuing student loans). This is 8% lower than in 2010–11, when it represented 5.6% of national income.
- 2 Before the financial crisis, education spending represented just under 5% of national income. If it had remained at this level, it would have been £16 billion higher in 2019–20.
- 3 Whilst education spending has mostly fluctuated between 4% and 5% of national income over the last 30 years, health spending has seen substantial increases, rising from 4% of national income in the early 1990s to over 7% just before the pandemic. This reflects the costs of an ageing society, but also spending and policy choices by successive governments.
- 4 In the latest year (2020–21), there was a 3% real-terms increase in education spending, which partly reflects temporary extra levels of support during the pandemic.

Early years

- 1 Government spending on funded early education and childcare places stood at £3.8 billion in 2020–21 (in today's prices). For 3- and 4-year-olds, this is equivalent to £4,200 per child accessing a place. This is partly inflated by reduced numbers of children attending early years settings during the pandemic, with spending around £3,900 per child the year before.
- 2 Over the past decade, hourly free entitlement spending has tended to follow a ratchet pattern: meaningful boosts in 2012 and

2017 were followed by years of cash-terms freezes, eroding spending power in real terms.

- 3 In 2020–21, extra funding led spending per hour to rise in real terms from £5.44 to £5.71 (2021–22 prices), about the same level as two years earlier (but less than its high point of £5.89 in 2017).
- 4 The Spending Review included about an extra £170 million per year for the early years entitlement. The government has recently announced that, in 2022–23, it will use some of this money to increase the core funding rate for the 3- and 4-year-old offer by 17p an hour. With a rising minimum wage and new taxes such as the health and social care levy, this relatively small increase will almost certainly not be enough to compensate for rising costs.

Schools

- 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 it came on the back of a significant increase in spending per pupil of over 60% during the 2000s.
- 2 The 2021 Spending Review included an extra £4.4 billion for the schools budget in 2024–25 as compared with previous plans. When combined with existing plans, we project that spending per pupil in 2024 will be at about the same level as in 2010. Whilst this will reverse past cuts, it will mean 15 years with no overall growth in spending. This squeeze on school resources is effectively without precedent in post-war UK history.
- 3 Secondary school spending per pupil in England (£6,600) was about 14% higher than in primary schools (£5,800) in 2020–21. This is down from a secondary/primary funding difference of about 30% in the 2000s and over 50% during the early 1990s. Whilst empirical evidence shows high benefits to spending at younger ages, it is not clear that evidence supports such a dramatic shift.

- 4 Deprived schools have seen larger cuts over the last decade. The most deprived secondary schools saw a 14% real-terms fall in spending per pupil between 2009–10 and 2019–20, compared with a 9% drop for the least deprived schools. The National Funding Formula has continued this pattern by providing bigger real-terms increases for the least deprived schools (8–9%) than for the most deprived ones (5%) between 2017–18 and 2022–23. The Pupil Premium has also failed to keep pace with inflation since 2015. These patterns run counter to the government’s goal of levelling up poorer areas.

Further education and sixth forms

- 1 Further education colleges and sixth forms have seen the largest falls in per-pupil funding of any sector of the education system since 2010–11. Funding per student aged 16–18 in further education and sixth-form colleges fell by 14% in real terms between 2010–11 and 2019–20, while funding per student in school sixth forms fell by 28%.
- 2 The government allocated an extra £700 million to colleges and sixth forms in 2020 and 2021. However, most of this has been eroded by rapid growth in student numbers. Looking forwards, this growth in student numbers represents a continuing major challenge for colleges and sixth forms, with further growth of 10% expected between 2021 and 2024.
- 3 As a result of additional funding in the 2021 Spending Review, total spending per student in 16–18 education is set to rise by 6% between 2021–22 and 2024–25.
- 4 Yet even with this additional funding, college spending per pupil in 2024–25 will still be around 10% below 2010–11 levels, while school sixth-form spending per pupil will be 23% below 2010–11 levels. Therefore, the additional funding for 16–18 education will only serve to partially reverse the cuts of the previous decade.

Higher education

- 1 Following the major reforms of 2012 and increase in tuition fees to £9,000, fees have mostly been held constant in cash terms, eroding their real value over time. As a result, up-front higher education spending per undergraduate student in 2020–21 was about 9% lower in real terms than it was in 2012–13.
- 2 As with further education, a major challenge for the higher education sector is the expected growth in student numbers, which are expected to rise by 13% between the 2019–20 and the 2025–26 entry cohorts.
- 3 There was surprisingly little mention of higher education funding in the recent Spending Review, though a number of potential changes have been rumoured, such as reductions in fees to £8,500 and in the threshold at which graduates begin to repay their loans to £22,000.
- 4 A lower tuition fee cap at £8,500 would only benefit the highest earners. The impact on the government finances would depend on whether teaching grants were increased at the same time to compensate universities for the loss in fee income. If so, this would be a good opportunity to rebalance teaching grants towards higher-cost subjects.

A lower repayment threshold of £22,000 would essentially be a tax rise for the nearly 80% of graduates expected not to clear their loans, raising around £2 billion a year. Graduates with middling earnings would need to pay around £500 more towards their loans per year. An extension of the loan repayment period to 40 years would raise roughly the same amount but only affect graduates later in life.

1. Introduction

Education spending is the second-largest element of public service spending in the UK behind health, representing about £99 billion in 2020–21 in today's prices or about 4.5% of national income. To make efficient and equitable policy choices, it is crucial to have a clear, consistent picture of the level of spending at each phase of education, how this has changed over time, how it is likely to evolve going forwards and what factors have driven these changes. This provides policymakers and the public with a sense of current resource priorities and future challenges. These issues are also a vital component of the education policy debate, particularly given empirical evidence showing how investments at different stages of the life cycle combine to drive long-run outcomes (Cunha, Heckman and Schennach, 2010; Johnson and Jackson, 2019).

In three annual reports on education spending funded by the Nuffield Foundation, we have sought to cast light on this subject by illustrating how spending per pupil across different stages of education has changed over time.

For this fourth annual report, for 2021, we have adopted a slightly different approach. In particular, we published a range of smaller outputs throughout the year on different topics to provide more timely and rapid analysis of the resource challenges facing different phases of education.

This analysis is also now housed on a new, dedicated website (<https://ifs.org.uk/education-spending>), providing easy access to the latest figures on spending per student by phase and the underlying methodology. We will also be using new ways to illustrate the spending challenges and policy choices across different stages of education, such as our new online student finance calculator (<https://ifs.org.uk/student-finance-calculator>).

We will still produce annual reports on education spending, but these will be focused on comparative spending levels and challenges across different stages of education, together with a summary of our analysis produced over the course of each year.

1.1 Emerging challenges

The next few years are likely to be particularly challenging, partly because of squeezes on education spending over the last decade, but also due to the effects of the pandemic on education and the scale of policymakers' goals.

All areas of education have seen spending cuts over the last decade. School spending per pupil fell by 9% in real terms over the decade up to 2019–20, whilst spending per student in further education and sixth forms fell by even more over a similar time frame (14% for colleges and 28% for school sixth forms). Early years spending has seen increases as a result of increased entitlements to free hours of early education and childcare, but spending per hour has remained largely flat. Higher education spending was boosted as a result of tuition fee rises in 2012, but this was mainly driven by increased expected contributions by graduates. More recently, freezes in fee levels have led to their value being eroded in real terms.

The pandemic has then created a further set of challenges. There is now significant evidence that pupils have fallen behind in their learning as a result of missed schooling, with estimates suggesting average educational progress for school children is about 2–4 months behind previous cohorts' and larger falls in maths, amongst younger children and amongst more disadvantaged pupils (Education Policy Institute, 2021). The government has allocated an additional £4.9 billion in England to help with education catch-up and recovery, but this falls a long way short of the £15 billion reported to have been recommended by the Education Recovery Commissioner, who resigned in June 2021 in protest at the scale of the plans as they were then. There is also evidence of wider impacts on the mental and physical health of children and young people (Blanden et al., 2021). We also know very little about the impact of lockdown on the educational progress of pre-school children or university students. Early years providers will also have faced significant financial uncertainty and turmoil through lockdowns and changes in demand over time.

The government has high ambitions and goals for the education sector. One of the biggest themes of the government's long-term policy agenda is 'levelling up' poorer regions of the country. A heavy emphasis has been placed upon the role schools and colleges can play in levelling up and narrowing inequalities. Further education and skills have received particular attention, with a focus on improving

the quality and take-up of technical qualifications and equalising funding for further and higher education qualifications.

In the 2021 Spending Review, the government set out plans for education spending in England through to 2024–25, covering the period up to the next general election. As we show later in this report, these plans will mostly reverse past cuts to school spending per pupil since 2010, but will still mean around a decade-and-a-half of no growth in school spending per pupil. Recent changes to school funding have also tended to favour schools in less deprived areas, which runs counter to policy goals around levelling up poorer areas. Furthermore, whilst existing commitments to increase teacher starting salaries seem affordable within planned budgets, there might be further pressure to increase teacher salaries if private sector earnings show a fast recovery.

The Spending Review provided a boost to the core funding rate for the entitlement to free early education and childcare, as well as wider early years programmes. There was also a boost to funding for 16- to 18-year-olds in colleges and sixth forms, though this will be partially swallowed up by fast increases in student numbers and spending per student will still be well below 2010 levels.

There was surprisingly little mention of higher education funding in the Spending Review. However, there have been rumours of various options for reform, including cuts to the interest rate and a reduction in the threshold at which graduates begin to repay their loans.

1.2 Rest of the report

In Chapter 2, we present overall levels of education spending across the UK. The rest of the report then focuses on day-to-day or current spending on education in England. This is primarily for data availability reasons, though we have also produced analysis of how school spending levels differ across the UK.

For the most part, we focus on public spending on education. This is due to a lack of reliable data on total private spending on each stage of education over time. For schools, we have produced additional analysis comparing state school spending per pupil and private school fees over time.

In Chapter 3, we show trends in pupil numbers across different phases of education in England, which illustrates the large rise in the child population over time, which is gradually working its way through the school system.

In Chapter 4, we show trends in spending per pupil across different stages of education over time, paying particular attention to recent trends since 2010.

In Chapter 5, we analyse the implications of the 2021 Spending Review for future trends in spending per pupil and the challenges across each stage of education. This includes analysis of various potential reforms to the higher education funding system.

In each case, our methodology for calculating spending per student is detailed in full on the dedicated website (<https://ifs.org.uk/education-spending/methods>).

For the early years, we focus on spending per child aged 3 or 4 years taking up the early years entitlement. For schools, we focus on school-based spending per pupil in primary and secondary schools as this allows for a split by phase of education. For further education, we focus on spending per student aged 16–18 in further education and sixth form colleges as this is available over a long time frame back to 1990 and sixth-form funding is included within our measure of secondary school spending per student.

For higher education, we focus on total resources per student, rather than the long-run government subsidy – for example, for the present day, it is total fees minus fee waivers and bursaries, plus teaching grant, and so includes the amount paid for by graduate contributions. We use this figure as we feel it best reflects the up-front resources going into higher education from government.

In almost all cases, figures relate to core education spending and exclude temporary support provided to education providers, pupils and students during the pandemic. In May 2021, our analysis showed that the government was due to spend about £4.3 billion on education in England in response to the pandemic over the two years 2020–21 and 2021–22, covering the early years, schools, further education and universities (Farquharson, Sibieta and Waltmann, 2021). However, about £1.3 billion or 30% was due to be funded from underspending or from existing budgets, so the net increase in government spending only represented about

£3.0 billion. Since then, the government has increased the level of education catch-up spending in England, taking it to a total of £4.9 billion.

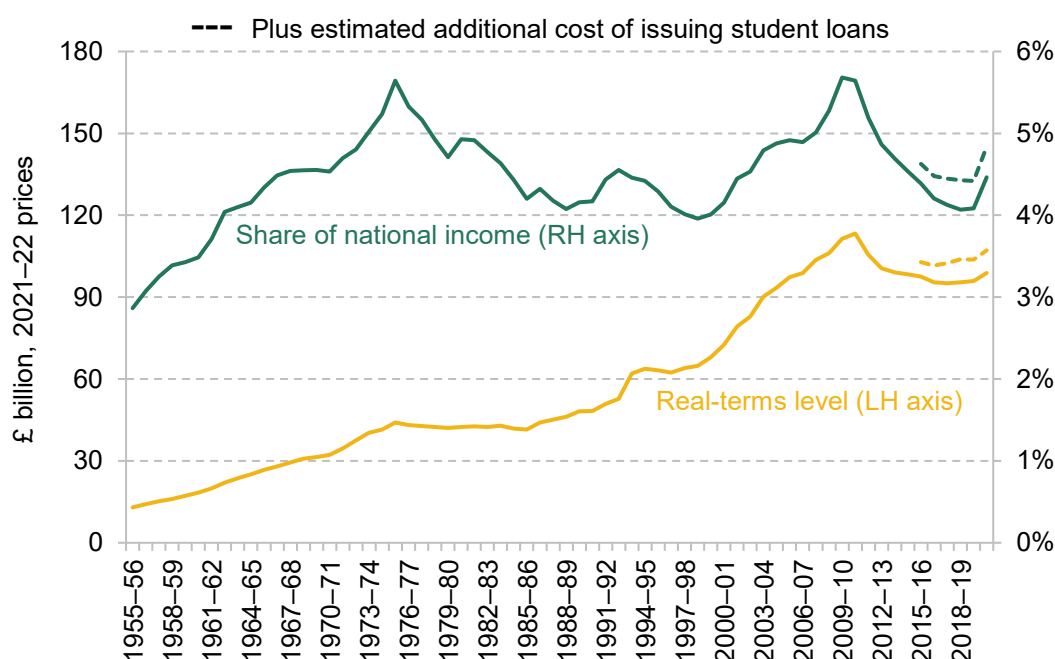
A particularly difficult issue for analysis this year is how to calculate real-terms change. In normal times, we adjust for economy-wide inflation as captured by the GDP deflator, which is the standard practice used for analysing public spending in the UK. However, during the pandemic and associated decline in economic activity, the GDP deflator has been highly volatile, with a more than 6% rise in 2020–21 and implied deflation in 2021–22. This results from a large rise in economy-wide inflation as the price of providing the same economic output in 2020 rose substantially during multiple lockdowns and restrictions. One could argue that the price of providing the same quality of education *outputs* also rose substantially in 2020–21 due to schools, colleges and universities being closed for most pupils and most education occurring remotely. Indeed, the GDP deflator might even significantly understate the true fall in the real value of education outputs.

That said, the actual path of the GDP deflator is probably a poor measure of the real value of *inputs* going into early years settings, schools, colleges and universities over this period. For the most part, we therefore use a smoothed version of the GDP deflator. To do so, we calculate the annual average level of economy-wide inflation between 2019–20 and 2022–23 (2.9%), and apply this rate instead of the reported value for the relevant years. After that, we revert to the actual projections. To minimise the effect of this smoothing, we try to avoid focusing on changes using 2020–21 as a base or end year wherever possible. We also report more cash values than we would normally.

2. Total spending

The total level of UK education spending has risen significantly in real terms over time. As shown in Figure 2.1, growth was particularly fast from the late 1990s through to the late 2000s, with real-terms growth averaging about 5% per year between 1998–99 and 2010–11. Education spending then fell as public spending cuts began to take effect from 2010 onwards. Between 2010–11 and 2019–20, recorded education spending fell by over 15% in real terms, taking it back to a similar level to that in 2005–06 and to a similar historically low share of national income to that last seen in the late 1990s.

Figure 2.1. UK education spending (2021–22 prices and as a share of national income)



Source: HM Treasury, *Public Expenditure Statistical Analyses 2021*; previous PESAs; HM Treasury, GDP deflators, October 2021 (<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-october-2021-budget-and-spending-review>); Office for Budget Responsibility, *Economic and Fiscal Outlook*, various editions (<https://obr.uk/efo/>); Office for National Statistics, 'Student loans in the public sector finances: a methodological guide', January 2020 (<https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/publicsectorfinance/methodologies/studentloansinthepublicsectorfinancesamethodologicalguide>).

In 2020–21, there was a 3% real-terms increase in education spending, which reflects the temporary extra levels of support during lockdowns and to help pupils catch up on lost learning. Education spending also rose to 4.5% of national income, which further reflects the drop in national income during the pandemic.

Importantly, these official figures do not fully account for the cost to the taxpayer of issuing student loans from 2011–12 onwards. As a result, the series is likely to overstate cuts to education spending since 2010–11. Recent changes to national accounting rules mean that the expected cost of issuing student loans is, however, included in overall measures of government spending and the public finances, such as the deficit. We estimate that if official measures of education spending had followed the new national accounting rules for student loans, education spending would have been around £5 billion higher in 2015–16 and £8 billion higher in 2020–21.¹ If we add these numbers to the official measure of education spending, the real-terms cut in education spending between 2010–11 and 2019–20 falls from 15% to 8%. Education spending as a share of national income rises to 4.8% in 2020–21, about the same level as in the early 2000s.

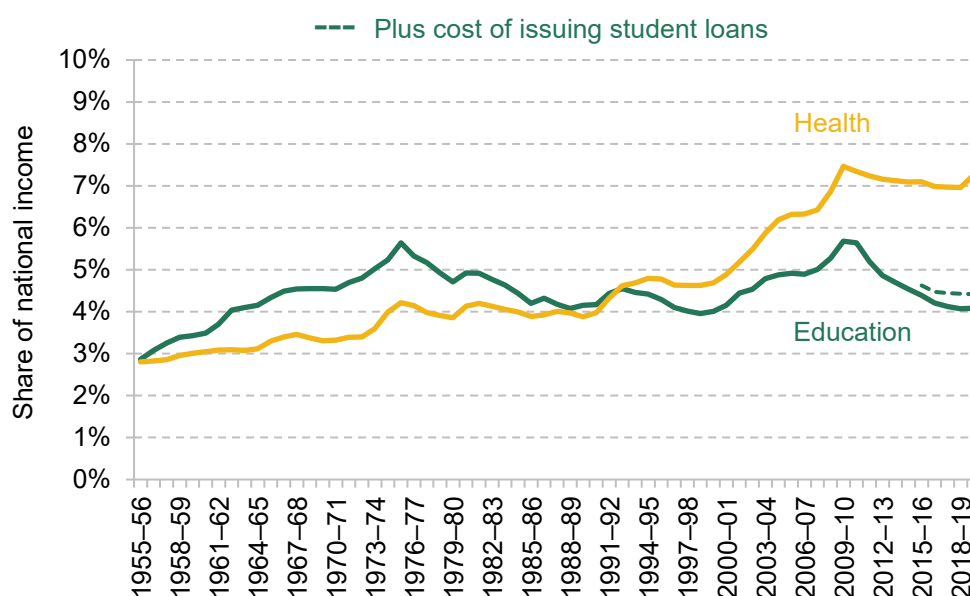
These figures also exclude the one-off additional cost associated with issuing student loans as a result of reduced future graduate earnings levels brought about by the economic effects of the pandemic.

Looking over the longer term, it is clear that education spending as a share of national income has not risen since the early 1970s, when it stood at just under 5% of national income. It has instead oscillated between about 4% and 5.5% of national income.

¹ We proxy the additional cost of student loans not accounted for in official education spending measures by the National Accounts measure of net spending on student loans. This is calculated as capital spending on newly issued student loans, representing the part of each loan not expected to be repaid, minus ‘modified interest’ on the part of any existing loan that is expected to be repaid, plus the net impact of any student loan sales (the impact of loan sales is zero since 2019–20, as the last sale concluded in December 2018; the student loan sale programme was cancelled in March 2020). All numbers are taken from the Office for Budget Responsibility’s *Economic and Fiscal Outlook* (various editions; available at <https://obr.uk/efo/>). For the 2015–16 to 2017–18 academic years, when the National Accounts treatment of student loans was different, we reconstruct what net spending would have been under the current treatment by subtracting nominal interest under the treatment at the time from the additional cost of student loans arising from the accounting treatment change according to the Office for National Statistics (see sources for Figure 2.1).

As shown in Figure 2.2, this contrasts sharply with health spending, which has nearly doubled as a share of national income since the early 1970s, from about 3.5% to over 7% of national income during most of the last decade. Thirty years ago in the early 1990s, education and health spending were very similar levels. By the late 2000s, health spending was about 30% greater than education spending and then nearly 80% greater by 2019–20. This reflects the effects of an ageing society on spending needs, but also spending and policy choices by successive governments that have tended to favour health spending over education spending over time.

Figure 2.2. Comparing UK health and education spending as shares of national income



Source: See Figure 2.1 for sources for education spending and national income. Health spending taken from HM Treasury, *Public Expenditure Statistical Analyses 2021*; https://ifs.org.uk/tools_and_resources/public_finances.

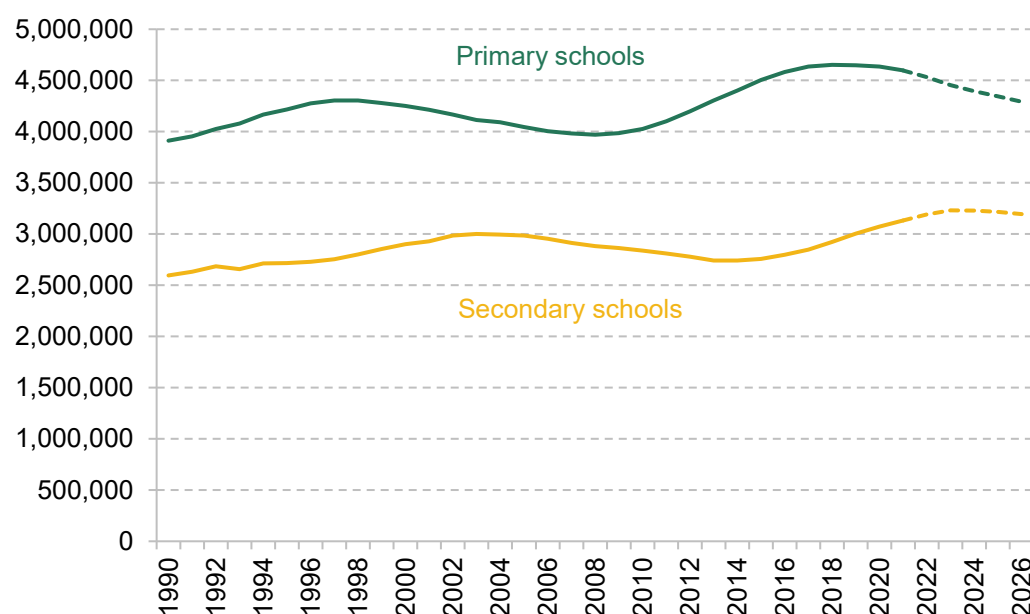
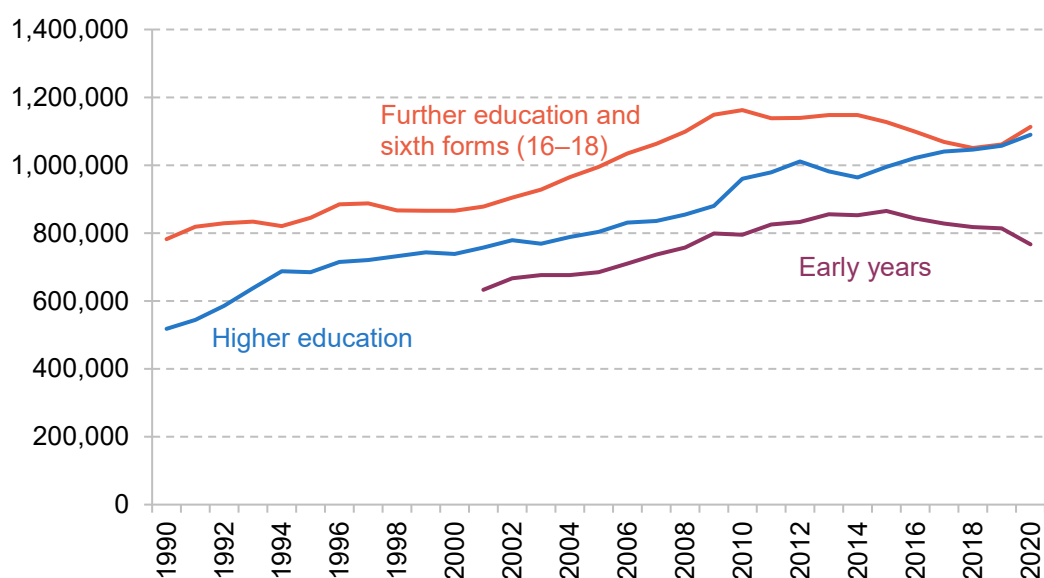
3. Student numbers

Total spending figures can obscure the impact of changes in the number of pupils, which are one of the most important factors driving changes in the total and per-pupil level of spending over time.

Figure 3.1a shows the number of pupils in state-funded primary and secondary schools over time. Numbers in primary schools grew by 17% between 2009–10 and 2019–20, the equivalent of an extra 700,000 pupils – or effectively a full cohort of children. They are now, however, starting to fall again with a more than 5% drop expected between 2019–20 and 2024–25. Pupil numbers in secondary schools fell from the early 2000s through to about 2014–15. Between 2014–15 and 2019–20, they then grew by nearly 10% and are forecast to grow by a further 7% or 200,000 between 2019–20 and 2024–25.

While pupil numbers in primary and secondary schools are driven mainly by population size, pupil numbers in other stages of education – early years, further education and higher education – are also affected by changing patterns of participation.² Figure 3.1b shows that there have been big increases in pupil numbers at all three stages. While population growth plays a role, extensions to the free childcare entitlement (in the early years) and higher levels of participation (at later stages) are the main factors driving these changes.

² From 2013, the education participation age in England was increased from 16 to 18. As a result, young people must remain in some form of education or training (either full-time or part-time) up to age 18. However, there is no meaningful legal penalty for failing to do so.

Figure 3.1. Pupil numbers in education in England**a) Schools****b) Other stages of education**

Source: Years refer to academic years. Early years numbers represent part-time-equivalent places of 3- and 4-year-olds taking up the universal early years entitlement (excluding 4-year-olds in infant classes) and are taken from Department for Education, 'Education provision: children under 5 years of age', January 2021 (<https://explore-education-statistics.service.gov.uk/find-statistics/education-provision-children-under-5>), January 2010 (<https://www.gov.uk/government/statistics/provision-for-children-under-5-years-of-age-in-england-january-2010>), January 2006 (<http://webarchive.nationalarchives.gov.uk/20130329235614/http://www.education.gov.uk/researchandstatistics/statistics/statistics-by-topic/earlyyearsandchildcare/nurseries/a00195255/provision-for-children-under-five-years-of-age-in->) and January 2002 (<http://webarchive.nationalarchives.gov.uk/20130323070608/http://www.education.gov.uk/researchandstatistics/statistics/statistics-by-topic/earlyyearsandchildcare/a00193904/provision-for-children-under-five-years-of-age-in->). Primary and secondary school numbers are taken from Department for Education, 'Schools, pupils and their characteristics', January 2020 and earlier years (<https://www.gov.uk/government/statistics/schools-pupils-and-their-characteristics-january-2020>) and 'National pupil projections: July 2020' (<https://www.gov.uk/government/statistics/national-pupil-projections-july-2020>). Further education and sixth forms figures refer to 16- to 18-year-olds in state-funded schools or colleges as measured at the end of each calendar year in Department for Education, 'Participation in education, training and employment: 2019' (<https://www.gov.uk/government/statistics/participation-in-education-training-and-employment-2019>). Higher education figures relate to full-time students on first undergraduate degrees and other undergraduate courses from HESA, 'Who's studying in HE?' (<https://www.hesa.ac.uk/data-and-analysis/students/whos-in-he>) and also use 'Historical statistics on the funding and development of the UK university system, 1920–2002' (<https://discover.ukdataservice.ac.uk/catalogue/?sn=4971&type=Data%20catalogue>).

3.1 Early years

Unlike schooling, further education and higher education, support for learning during the early years does not always fit neatly into a single box. The system includes subsidies targeted at low-income working families (distributed through the benefits system) and for working families more generally (through tax-free childcare and employer-sponsored childcare vouchers).

But the largest group of programmes – and the one most recognisably aimed at early education – is the trio of 'free entitlements' to funded early education and childcare places, paid for by the Department for Education:

- The **universal** entitlement offers all 3- and 4-year-olds a part-time (15-hour) place for 38 weeks of the year.
- The **extended** entitlement, introduced in 2017, offers an additional 15 hours a week of childcare to 3- and 4-year-olds in working families.

- The **2-year-old offer**, introduced in its current form in 2014, provides the roughly 40% most disadvantaged children with a part-time early education place, again for 38 weeks a year.

Between 2001–02 and 2015–16, the total number of part-time-equivalent places for the universal free entitlement in the early years rose by 37%, reflecting greater numbers of children in the population and expansions to free entitlement eligibility. Since then, numbers have fallen by 6% between 2015–16 and 2019–20. The population of 3- and 4-year-olds fell by around 3% over this period, explaining around half of the drop.

There has also been a gradual but longstanding fall in the take-up of the free entitlement, as reported in the Department for Education’s statistical returns (e.g. Department for Education, 2021). Take-up of the universal entitlement had reached a high of 98% by 2004–05, but had fallen to 93% by 2019–20.

The COVID-19 pandemic has seen take-up fall still further. Since England was in the midst of a national lockdown at the time of the last Early Years Census in January 2021, policymakers explicitly (and exceptionally) allowed providers to count the number of pupils *registered* for a place rather than those actually taking it up on census day (Crawford and Farquharson, 2021). However, there are good reasons to think that the pandemic may have depressed registrations as well. High rates of furlough and unemployment may have reduced parents’ demand for childcare places, especially at providers that charged a fee for keeping children enrolled. At the same time, parents who needed to find a new place (for example, because their child aged into the entitlement during the pandemic, or because their usual provider went out of business) may have found the registration process more difficult than usual, with limits on nursery visits used to assess the right fit (see Blanden et al. (2020) for further discussion). Since a number of providers closed their doors (temporarily or permanently) during the pandemic, parents might also have found it more difficult than usual to find a setting willing to take them on.

Overall, the share of 3- and 4-year-olds registered for a free entitlement place fell to 90% last year – its lowest level since 2001–02. Among 2-year-olds, the take-up rate reached 62%, its lowest level since 2014–15 (the year the entitlement was first introduced for the 40% most disadvantaged children). This fall in take-up could have real consequences both for the children missing out on early education and for

the providers whose funding allocations will be based on a lower take-up rate next year.³

3.2 Further education (16–18)

The number of students in 16–18 education grew by almost 50% between 1990–91 and 2010–11, from about 800,000 to 1.2 million full-time-equivalent (FTE) students. Since 2010–11, numbers fell by about 10% up to 2018–19, reflecting reduced cohort sizes rather than falls in participation. Since then, numbers have started to rise again and in the latest year of data in 2020–21, numbers grew by nearly 5%. This reflects a combination of growth in cohort sizes again, but also increased levels of participation in education as other employment and training opportunities dried up during the pandemic. Further rises are expected over the next few years due to population growth, with numbers currently projected to rise by 10% between 2021 and 2024.⁴

3.3 Higher education

The number of full-time undergraduate students in higher education in England has more than doubled since 1990, with an increase of 10% or nearly 100,000 between 2014 and 2019 alone. This large increase in higher education student numbers over time has led successive governments to make substantial changes to the higher education finance system in order to ensure sufficient levels of resources. In the most recent year (2020), numbers are expected to have increased by 3% or 30,000. As with further education and sixth forms, this reflects poor outside options given the pandemic and state of the economy. But it also reflects that A-level results were higher than normal given the use of teacher- or centre-assessed grades.

³ The evidence for the impact of the free entitlement on child development is mixed, with some studies suggesting that the funded hours have relatively little measurable impact on children's academic attainment (Blanden et al., 2016). However, one major explanation for this relatively small impact is the high level of (paid) childcare take-up that predated the free entitlement. Since COVID impacted the share of children taking up *any* childcare, not just the take-up of the free offer, it is likely that the consequences of missing out on early learning could be more severe.

⁴ <https://www.nomisweb.co.uk/datasets/ppsyoa>.

4. Spending per pupil

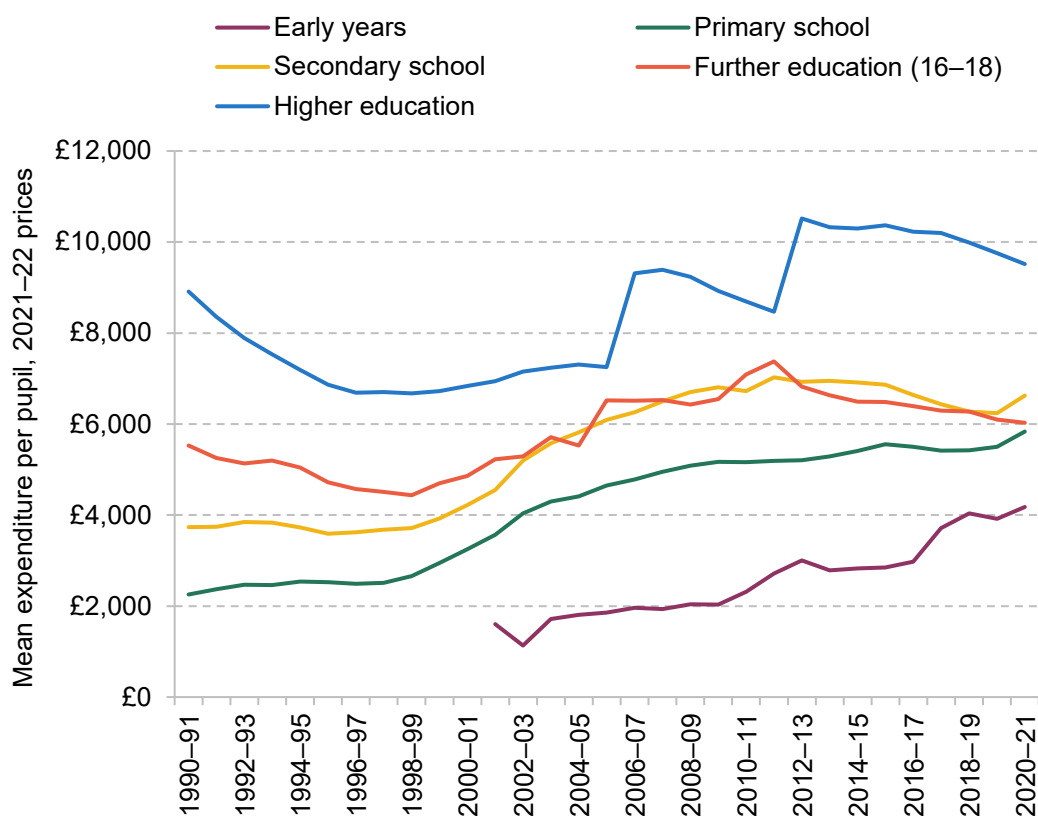
In this chapter, we compare the level of spending per pupil across the different stages of education. This only covers actual spending levels up to 2020–21 and not future plans, which are discussed in the next chapter.

The shape of public spending on education has changed significantly since the early 1990s. In 1990–91, there was a very clear gradient across education stages: the older the pupils being taught, the higher the level of public spending (or resources) per pupil per year. Although this broadly remains true in 2020–21, the relative differences are much smaller. Figure 4.1 compares the trends in public spending per student on various stages of education over time in England, whilst Figure 4.2 shows the levels relative to primary school spending per pupil.

At the start of the period, in 1990–91, higher education spending was £8,900 per student per year (this and all figures here are in 2021–22 prices), about four times the level of primary school spending per pupil, and it all came directly from government spending. Further education spending was about £5,500 per student and nearly 2.5 times the level of primary school spending (and 1.5 times the level of secondary school spending) per pupil. Secondary school spending was £3,700 per pupil, about 1.7 times the level of primary school spending per pupil (£2,300). Early years spending was very low (less than £100 million in total, with no centralised national programmes for early education) and is not shown on these graphs as a result.

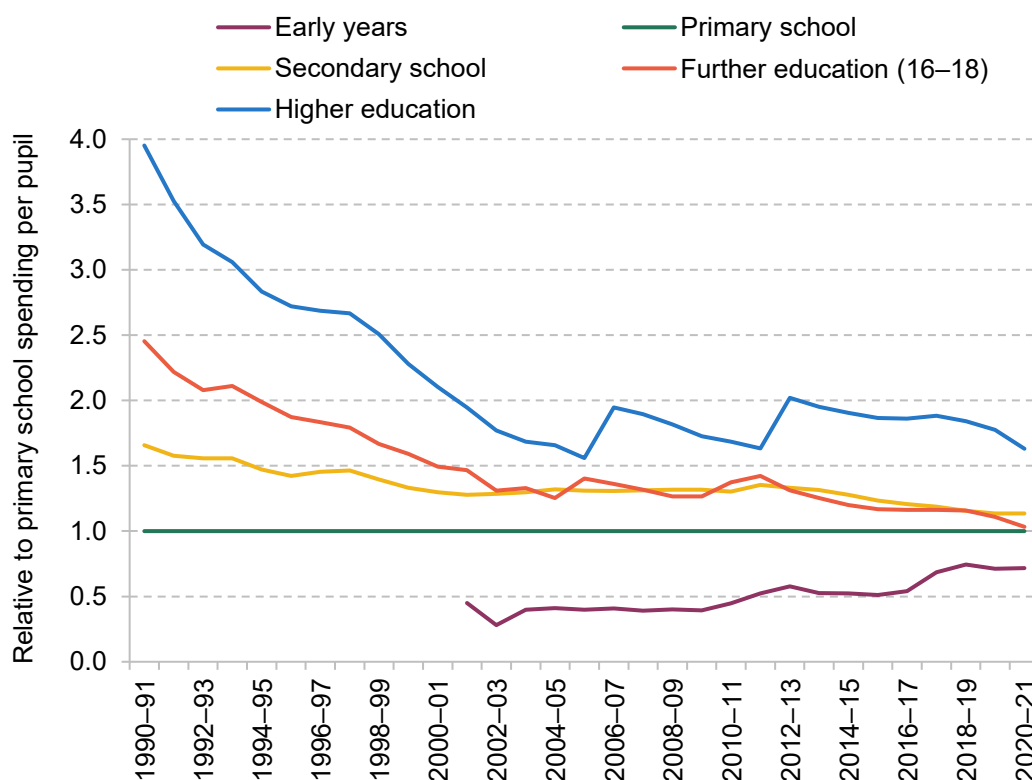
Over the next 25 years, there were then significant changes in this balance of spending, with three distinct phases of change: falls in spending (1990–91 to 1997–98); rapid growth (1997–98 to 2010–11); and differential protections from spending cuts (2010–11 onwards).

Figure 4.1. Spending per pupil or student per year at different stages of education (2021–22 prices)



Note and sources: Early years figures are spending per child for 3- and 4-year-olds taking up a place. Secondary school spending per pupil includes spending on school sixth forms. Further education figures represent spending per student aged 16–18 in further education and sixth-form colleges. Higher education figures are cohort-based numbers divided by 3 – an approximate course length. HM Treasury, GDP deflators, October 2021 (<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-october-2021-budget-and-spending-review>); Office for Budget Responsibility, *Economic and Fiscal Outlook*, October 2021 (<https://obr.uk/efo/economic-and-fiscal-outlook-october-2021/>).

Figure 4.2. Relative spending per pupil or student per year at different stages of education (primary school spending per pupil = 1)



Source: See Figure 4.1.

4.1 Past trends in spending

During the period of falls in spending in the 1990s, 16–18 education and higher education spending per student both fell significantly in real terms, by around 19% and 25% respectively between 1990–91 and 1997–98. In contrast, primary and secondary school spending per pupil were largely frozen in real terms, shrinking the gap between school spending per pupil and post-compulsory education spending per student.

From 1997–98 to 2010–11, spending and resources increased across all stages of education. The early years entitlement was introduced and then extended over time. There were some very significant increases in school spending per pupil, with primary school spending per pupil growing by 6% per year and secondary school spending per pupil by 5% per year, on average, in real terms between 1997–98 and 2010–11. Further education spending per student also grew significantly over the

period, but at a slightly slower rate of under 4% per year on average in real terms. As a result, by the late 2000s, the level of spending per pupil in secondary school was similar to that in 16–18 education, a dramatic turnaround compared with the picture in the early 1990s.

Resources for higher education increased slightly in real terms, by around 8% between 1997–98 and 2005–06, as the real value of teaching grants per student increased. The increase in the tuition fee cap to £3,000 then led to a large uptick in resources. However, these increases were not enough to keep pace with the growth in primary school spending over this period. In 1997–98, higher education received 2.7 times as much funding per student as primary schools, but by 2011–12 this had fallen to a little over 1.6 times as much. This is a dramatic shift in the relative priorities of these spending areas.

4.2 Trends from 2010 onwards

Since 2010, there have been cuts across many areas of education spending. However, the trends have differed markedly across each phase of education.

Early years

As Figure 4.1 shows, the early years have had quite a different decade from many other stages of education. Spending per place for 3- and 4-year-olds nearly doubled between 2009–10 and 2019–20 (from around £2,000 to £3,900 per child per year), at a time when per-pupil spending was falling among secondary and further education students. Policy changes played a large role in this: the universal entitlement was expanded from 12.5 to 15 hours a week for all children in 2010, and 2017 saw the introduction of a new 30-hour entitlement for 3- and 4-year-olds in working families. However, most of the rise actually happened between 2010 and 2012, driven by rapid growth in spending per hour.

While total spending and spending per place give a good sense of the extent to which policymakers have prioritised the early years sector above other stages of education, spending per hour is a better measure of the financial resources that providers have to actually deliver these entitlements. Over the past decade, hourly free entitlement spending has tended to follow a ratchet pattern: meaningful boosts

in 2012–13 and 2017–18 were followed by a few years of cash-terms freezes, eroding spending power in real terms.⁵

More recently, 2020–21 saw a reversal in this trend – spending per hour for 3- and 4-year-olds rose from £5.44 to £5.71 in real terms (2021–22 prices), about the same level as two years earlier (though still less than its £5.89 high point in 2017–18). This modest increase partly reflects policy decisions: the 2019 Spending Round allocated £66 million (cash terms) to increase the funding rate in 2020–21, offsetting some (though not all) of the impact of inflation from one year to the next.

Likely more important, though, were the effects of the pandemic. As discussed in Chapter 3, the number of children registered for early years places was (perhaps temporarily) low in January 2021, at the most recent census. Since funding allocations for Autumn 2020 were, exceptionally, based on the January 2020 census rather than the 2021 update, the total pot of funding available was relatively bigger compared with the depressed pupil count, leading to a somewhat higher measure of spending per hour.

Schools

School spending per pupil was largely protected in real terms up to 2015. Since then, primary school spending per pupil fell by 1% in real terms and secondary school spending per pupil by 9% up to 2019–20, with the latter including the effects of large cuts to school sixth-form funding. This led the secondary/primary funding ratio to fall to 1.14, the lowest difference between primary and secondary school spending per pupil in at least 40 years.

In the latest year (2020–21), spending per student in primary and secondary schools rose by 6% in real terms. This reflects a combination of factors. First, these figures include extra funding provided to schools to compensate them for higher employer pension contributions (equating to £1.45 billion in 2020–21 or about 3% of total

⁵ This is particularly true of the pattern of ‘core’ funding through the Dedicated Schools Grant, which stood at £4.50 between 2012–13 and 2016–17 (in cash terms) before rising to £4.77 in 2017–18 and remaining frozen there for the next three years. On the wider measure of spending that we prefer, changes in other aspects of early years funding – such as the introduction of a new Early Years Pupil Premium in April 2015 or changes to local authority support for the early years – mean that spending per hour has followed a somewhat more varied pattern.

school funding from central government). It also partly reflects a return to real-terms growth in spending per student as first set out in the 2019 Spending Review.

These figures exclude central spending by local authorities, which cannot be neatly allocated across different phases. As we have shown in our previous analysis (Sibieta, 2021a), a more comprehensive measure of total school spending per pupil (including spending by local authorities) shows similar trends to school-based measures up to 2010. However, since then, funding and responsibilities have shifted from local authorities to schools. As a result, school-based measures of spending per student provide an overly positive picture of core school spending per student.

Our more comprehensive measure of total school spending per student fell by 9% in real terms in the decade between 2009–10 and 2019–20. This represents the most complete picture of changes in school spending per pupil over recent years.

Deprived schools have seen larger cuts over the last decade (Sibieta, 2021a). The most deprived secondary schools saw a 14% real-terms fall in spending per pupil between 2009–10 and 2019–20, compared with a 9% drop for the least deprived schools. The National Funding Formula has continued this pattern by providing bigger real-terms increases for the least deprived schools (8–9%) than for the most deprived ones (5%) between 2017–18 and 2022–23. It is also notable that the Pupil Premium has failed to keep pace with inflation since 2015. In the last year, the point in the school year for determining eligibility for the Pupil Premium was also moved to October instead of January. Given the large increases in claims for free school meals between October 2020 and January 2021, this change will have delayed increases in the Pupil Premium to 2021–22. These patterns run counter to the government’s goal of levelling up poor areas.

Cuts to school spending per pupil have partly been delivered through squeezes on teacher and other staff pay levels over the past decade, and longer. As we have shown (Cribb and Sibieta, 2021), pay levels for more experienced teachers in 2021 remain about 8% lower in real terms than in 2007, just before the financial crisis. Despite recent increases, pay levels are also still about 4–5% lower in real terms for new and less experienced teachers too. These represent declines relative to average earnings, which have now recovered to be just above the level seen in 2007.

For schools, we can also show useful comparisons with other nations of the UK. As shown in Sibieta (2021b), trends over time and levels of school spending per pupil

are very similar across England and Wales (about £6,600–£6,700 per pupil by 2021–22). Between 2009–10 and 2018–19, spending per pupil fell by 8% in real terms in England and by 5% in real terms in Wales. Since then, total school spending per pupil has risen by about 8% in real terms in both countries to reach just below 2009–10 levels in England and just above 2009–10 levels in Wales. In Scotland, school spending per pupil fell up to 2015–16, but has since more than recovered. Whilst figures for Scotland include (potentially temporary) COVID-related spending, underlying school spending per pupil in Scotland in 2021–22 is still likely to be over 6% higher in real terms than in 2009–10 and over £800 higher than in the other three nations of the UK. School spending per pupil is lowest in Northern Ireland (planned £6,400 per pupil in 2021–22), which saw the largest cuts over the last decade (10% real-terms cut between 2011–12 and 2018–19). This partly reflects significant delays in agreeing teacher salary levels. However, planned spending per pupil in 2021–22 is still due to be about 3% lower in real terms than in 2011–12.

Whilst core school spending per pupil fell by 9% in real terms between 2009–10 and 2019–20, private school fees rose by 23% in real terms (Sibieta, 2021c). This significantly increased the gap between state school spending per pupil in England and private school fees. In 2009–10, the gap between total state school spending per pupil (including both day-to-day and capital spending) and private school fees was about £3,100 or nearly 40%. By 2020–21, this had more than doubled to a difference of £6,500 or over 90%.

Further education and sixth forms (16–18 education)

Over the last decade, there have been even larger falls in further education and sixth-form spending per student aged 16–18. Figure 4.1 shows that spending per student aged 16–18 in further education and sixth-form colleges fell by 14% in real terms between 2010–11 and 2019–20. This left spending per pupil in further education and sixth-form colleges below that seen in secondary schools and only about 11% higher than spending per pupil in primary schools.

Whilst not shown directly on Figure 4.1, these cuts have been even larger for school sixth forms, with school sixth-form funding per student falling by 28% in real terms over the same period (Sibieta and Tahir, 2021).

In the 2019 Spending Review, the government allocated an extra £400 million to colleges and sixth forms in the 2020–21 financial year. However, student numbers grew by 5% in 2020 as a result of growing cohort sizes and increased participation in full-time education during the pandemic. This high growth in student numbers means that the extra funding for 2020–21 actually led to a small real-terms fall of 1% in spending per student aged 16–18 in further education and sixth-form colleges.

However, one should be careful about placing too much emphasis on trends for 2020–21, given the effects of the pandemic on inflation and participation in education. The extra £400 million also only applied to two-thirds of the academic year and actually amounted to closer to £600 million when seen over a full college academic year (August to July).

Nevertheless, looking over the long run, spending per student in colleges is currently around the same level it was in 2004/2005, and only about 9% higher than thirty years earlier in 1990. For school sixth forms, spending per student is lower than at any point since at least 2002. Indeed, in 2020–21, it will still be 15–20% lower in real terms than 18 years earlier in 2002–03. These historically large decreases in spending per student create immense resource challenges for colleges and sixth forms in seeking to maintain the quality of education.

Higher education

Higher education saw a large increase in resources per student of 24% as a result of the increase in tuition fees in 2012. This measure includes total fees and thus includes both expected government and graduate contributions to the cost of fees. Indeed, the increase in resources in 2012 was mostly driven by increased expected graduate contributions. These resources were then relatively steady up until 2015–16, but have since fallen in real terms. As a result, resources per student in 2020–21 are about 9% lower in real terms than they were in 2012–13.

This leaves spending per student in higher education only about 7% higher in real terms than it was in 1990–91, though with a much larger student population and much larger total funding as a result. However, these trends continue a clear historical pattern of large increases in higher education resources in years when fees are increased, which are then followed by periods of gradual real-terms falls in resources per student.

Because of cuts to school spending, spending per student in higher education remains at about 1.6 times the level of spending in primary schools. A large part of this difference will reflect higher costs of providing higher education than primary schooling.

4.3 Summary

By 2020, we see a much more complex picture than we saw in 1990. Higher education resources per student continue to be higher than resources at all other stages, but only due to graduate contributions, and the changes over time have been far from smooth. School spending has been prioritised by successive governments. Further education and sixth-form funding per student aged 16–18 has been the big loser from changes over the last 30 years, with spending per student in further education below that in secondary schools and only about 3% higher than spending per pupil in primary schools. Early years spending has been a focus of successive governments and has grown to just over 70% of per-pupil spending in primary schools. However, we know there have been cuts to other early years services such as Sure Start. All of this provides an important context for the challenges each stage of education faces in the years to come.

Overall, the picture of government spending on education has changed significantly over the last 30 years, with the focus of spending shifting towards earlier in youngsters' lives. Funding for the early years has been gradually expanded over time and schools have seen significant real-terms increases in spending per pupil over this period as a whole. Funding for older age groups has risen by much less over time. Spending per student in 16–18 education is no more than 9% higher in real terms than 30 years ago. Funding per student in higher education has only increased by 7% over the same time frame, though remains significantly higher than that in all other stages of education.

5. Spending Review and future challenges

In the 2021 Spending Review, the government announced details of a three-year spending settlement (covering spending in 2022–23, 2023–24 and 2024–25). While this Spending Review was more generous to public services as a whole than the last multi-year Spending Review in 2015, the education budget has been awarded a smaller-than-average rise – even as it faces numerous challenges and pressures relating to pandemic recovery and the impacts of a squeeze on most areas of spending over the past decade (Zaranko, 2021).

In this chapter, we analyse some of the choices that the government made, what they mean for the future path of education spending, and the wider policy goals and challenges facing the education sector.

5.1 Early years

The Spending Review included a significant amount of new money for the early years. Most immediately, it allocated £510 million over the three-year horizon (£160 million in 2022–23; £180 million the following year; and £170 million in 2024–25) to increasing the funding rate for free entitlement hours. This increase is worth around 4% of overall annual spending on the free entitlement.

The government has given some information about how the money will be allocated in 2022–23 (Education and Skills Funding Agency, 2021). The core funding rate will rise by 21p an hour for 2-year-olds, and by 17p an hour for 3- and 4-year-olds (for most local authorities). Figure 5.1 shows how these increases compare with the core funding rate over the past 10 years. After inflation is taken into account, the core rate for 3- and 4-year-olds will be only around 3p higher in real terms next year; if it is frozen in cash terms for the rest of the Spending Review period, by 2023–24 it will be on track to reach its lowest real-terms level yet. The 2-year-old rate is set to follow a similar pattern, with a slight real-terms boost next year being more than eroded by inflation in the two years following.

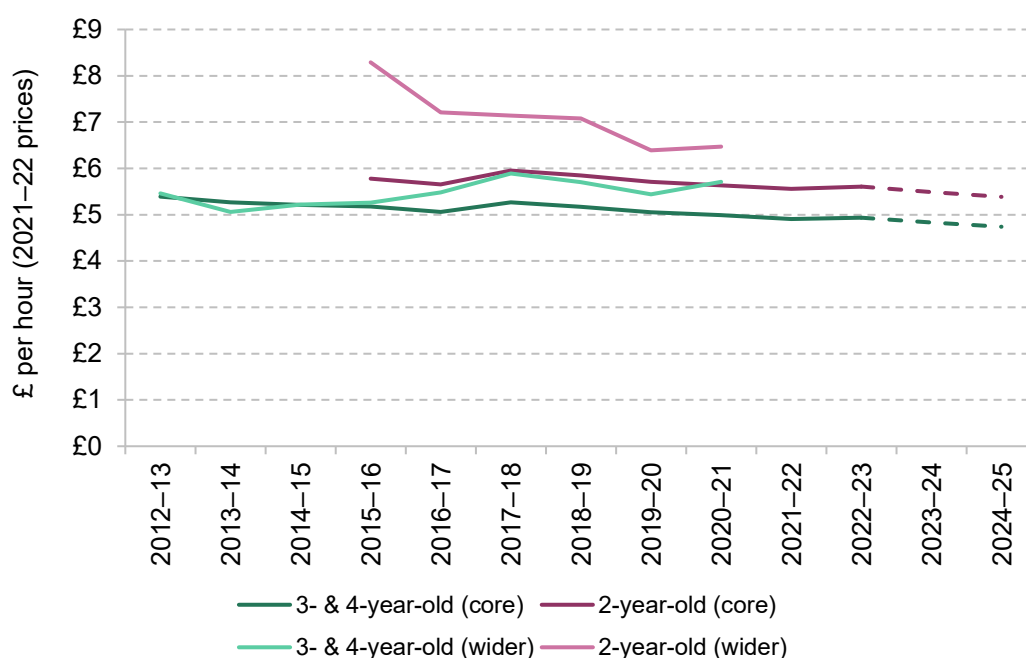
And all of this ignores the cost pressures from above-inflation increases in the national living wage and rising taxes such as the health and social care levy. These will put substantial pressure on providers given the large share of their total costs directly related to (predominantly low-wage) staffing (Blanden et al., 2020). Once these additional pressures are taken into account, providers look set for several more years of very tight finances.

While the core funding rate is by far the most important part of the financial picture for providers, accounting for around 90% of spending on the free entitlement, there are other targeted uplifts built into the system which the government has chosen to increase. Most notably, having been frozen in cash terms since its introduction in 2015, the Early Years Pupil Premium (EYPP) will rise in cash terms from 53p to 60p an hour.⁶ This means that disadvantaged 3- and 4-year-olds who take up their full universal entitlement will now receive £342 in additional funding (cash terms), up from just over £300. While this is a welcome increase that will help prevent the funding system from becoming less progressive over time, here too a cash-terms freeze after 2022–23 will see the increase eroded over time. If the EYPP remains frozen in cash terms through the end of the Spending Review horizon, the uplift will be worth just £20 in today's prices by 2024–25.

The government has also announced a large increase for the Disability Access Fund, which is a supplement for providers to support children with a disability. While the £185 increase represents a large boost over current levels (£615 per year), the overall impact on early years budgets will be small: in 2021–22, the Disability Access Fund accounted for less than 0.5% of the total early years budget.

Our wider measure of spending per hour takes these uplifts into account (along with any optional spending done by local authorities). In lighter colours, Figure 5.1 shows the historical levels of this wider measure of spending. For the last few years before the pandemic, these uplifts were worth between 40 and 60p an hour. Since a share of the Spending Review funding will go on targeted supplements, we should expect the wider spending rate to remain meaningfully above the core funding rate for the next few years.

⁶ The government also announced an increase in the supplement for maintained nursery schools.

Figure 5.1. Core funding rate and wider spending per hour on the free entitlement

Note: 'Core' funding is derived from allocations through the Early Years block of the Dedicated Schools Grant as the (weighted) average of local authorities' core funding rates through the Early Years National Funding Formula. Our measure of 'wider' spending incorporates additional spending on free entitlement hours, including through dedicated uplifts (such as the Early Years Pupil Premium) and any additional funding provided by local authorities. Projected core funding rates assume a cash-terms freeze in the core funding rate at 2022-23 levels.

Source: Core funding – see [Dedicated Schools Grant](#), 2012-13 to 2022-23. Wider spending – in addition to Dedicated Schools Grant, see [Section 251 Budgets](#), 2012-13 to 2019-20. HM Treasury, GDP deflators, October 2021 (<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-october-2021-budget-and-spending-review>); Office for Budget Responsibility, *Economic and Fiscal Outlook*, October 2021 (<https://obr.uk/efo/economic-and-fiscal-outlook-october-2021/>).

Wider spending on the early years

The Spending Review also contains around £500 million over 3 years in wider funding for early intervention services, roughly the same amount of new money as it dedicates to topping up the free entitlement funding rate. This spending is welcome: while the childcare budget rose quickly after 2009-10, these wider services have seen substantial cuts over the past decade. Most notably, spending on Sure Start has fallen by more than two-thirds from its high point in 2010 (Britton, Farquharson and Sibieta, 2019).

These cuts look particularly damaging in light of more recent evidence showing that integrated, holistic early years services can deliver large and long-lasting benefits for children (Cattan et al., 2021). By contrast, evidence from England comes to mixed conclusions about the impact of the free entitlement on children's academic outcomes: while some studies find that choosing to use more or higher-quality childcare (whether related to the free entitlement or not) is associated with better outcomes (Taggart et al., 2015), others find that the free entitlement programme itself had relatively modest effects on academic achievement (Blanden et al., 2016).

However, the early intervention funding allocated in the Spending Review is not a like-for-like substitute for spending on the Sure Start programme. Rather than devolving decision-making to a local level, the Spending Review strikingly chooses to parcel the money out in a number of highly targeted pots, some quite small. Over the three-year Spending Review horizon, the £500 million in new funding is split as follows:

- £200 million to expand the Supporting Families programme (formerly the Troubled Families programme). This will see the programme's budget expanded by around 40%, which the government estimates will extend support to around 300,000 additional families with complex needs.
- £100 million to increase mental health support for new parents.
- £50 million for breastfeeding support.
- £10 million to signpost the NHS's Start for Life programme.
- £50 million for parenting programmes.
- £82 million to expand a new programme of Family Hubs to 75 more local authorities.

On the other hand, one positive aspect of this early intervention funding is that it is split across departments. Funding for parenting support and Family Hubs (through the Department for Education) is complemented by funding for early health programmes (through the health department budget), and the largest amount of spending comes through the local government budget. If this represents progress towards recognising the interconnectedness of early development and the need for a range of options for support, that will be a step forward for improving children's healthy development.

5.2 Schools

The 2021 Spending Review included a three-year settlement for day-to-day spending on schools in England up to 2024–25. This included an additional £1.75 billion beyond existing plans for 2022–23, of which about £350 million represents compensation to schools for the employer cost of the new health and social care levy.⁷ However, about £1.4 billion will reflect new funding for schools.

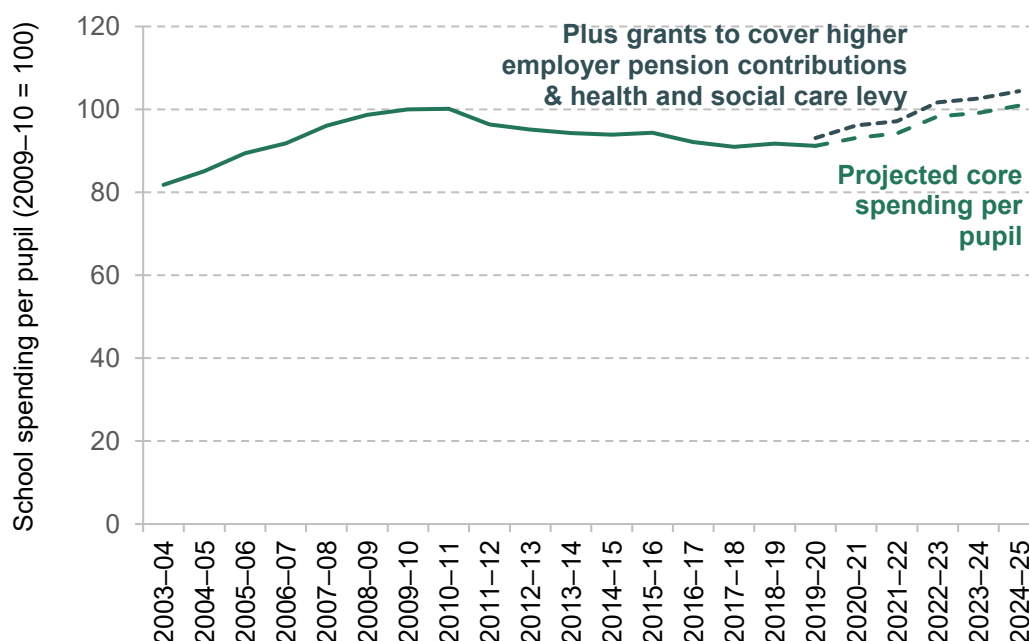
The schools budget will then rise by a further £3 billion in cash terms between 2022–23 and 2024–25. This makes for a total cash-terms rise of £4.4 billion compared with previous plans, or closer to £4.8 billion when you include compensation for the cost of the new health and social care levy.

Following a significant rise in the pupil population over the last decade, the number of pupils in state-funded schools in England is expected to decline by 1% between 2021–22 and 2024–25. After accounting for this trend in Figure 5.2, we project that core school spending per pupil will rise by over 4% in real terms in 2022–23 and by over 1% per year between 2022–23 and 2024–25. This will make for a total rise of 7% between 2021–22 and 2024–25.

Combining this with a 3% rise between 2019–20 and 2021–22 implies a total real-terms rise of just under 11% between 2019–20 and 2024–25. This will take spending per pupil to about 1% above its past high point around 2010 and is clearly sufficient to reverse the 9% cut that took place between 2009–10 and 2019–20.

As shown in Figure 5.2, these figures are based on projected trends in core school spending per pupil after excluding the effects of extra funding to schools to compensate for higher employer pension contributions from September 2019 and the new health and social care levy from April 2022. We calculate real-terms changes using economy-wide inflation as captured by the GDP deflator (smoothed between 2019–20 and 2022–23).

⁷ This assumes that funding to schools equates to 20% of the £1.8 billion to be allocated across public sector employers, with 20% being the approximate share of the public sector workforce employed by schools.

Figure 5.2. Total school spending per pupil, relative to level in 2009–10

Source: Spending Review (HM Treasury, 2021); Sibietta (2021a); HM Treasury, GDP deflators, October 2021 (<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-october-2021-budget-and-spending-review>); Office for Budget Responsibility, *Economic and Fiscal Outlook*, October 2021 (<https://obr.uk/efo/economic-and-fiscal-outlook-october-2021/>).

Pressures on school budgets

The main pressure on the schools budget will clearly be the cost of teachers, particularly given the stated commitment to increase teacher starting salaries to £30,000. This was originally due to be delivered by September 2022, but was delayed following a decision to freeze public sector pay during the pandemic in 2021. To deliver this manifesto commitment within this parliament, starting salaries will need go up to £30,000 by September 2023. This requires a further 17% cash-terms rise in starting salaries from their current level of £25,714 outside London.

Such a rise should be affordable within the current school funding settlement. Before the pandemic hit, the government set out an example pathway to £30,000 starting salaries and smaller increases to the salaries of other teachers by September 2022 that it deemed affordable within the funding settlement at the time (Department for Education, 2020). This equated to an average increase in teacher pay per head of about 3% per year in cash terms. If this pathway was affordable at

that time, then it should also be affordable within an expanded settlement and implemented a year later than planned.

To see this in concrete terms, the approximate cost to schools of a further increase in teacher pay per head of 3% per year between 2021–22 and 2023–24 is about £1.7 billion per year.⁸ Under the 2021 Spending Review, the core schools budget is due to rise by over £5 billion over the same period. Whilst this costing of a 3% per year rise in teacher pay per head is quite approximate, the affordability of such a rise is quite clear.

There will naturally be other pressures on the schools budget too. These will include increasing costs of high-needs provision given rising numbers each year and extra spending on the Pupil Premium given increased numbers of pupils eligible for free school meals over the past year. They may also include a desire to increase teacher pay by larger amounts if there is fast growth in private sector earnings, particularly for more experienced staff. The example pathway set out by the government in 2020 only involved salary increases of 2–3% per year for more experienced teachers. This would not be enough to offset the 8% real-terms cut in salaries for more experienced teachers between 2007 and 2021.

It is also important to emphasise the scale of the squeeze on school resources. In the 15 years between 2009–10 and 2024–25, there will be almost no overall real-terms growth in school spending per pupil. This is remarkable compared with recent trends. Prior to 2010, the previous lowest growth over a 15-year period was positive growth of 25% for secondary schools between 1983–84 and 1998–99 (Sibieta, 2021a).

Whilst consistent data on school spending per pupil only go back to the mid 1970s, we do know from Figure 2.1 that overall education spending was growing year-on-year in real terms from 1955 through to the mid 1970s, mostly by more than 5% per year in real terms. With school spending making up the lion's share of spending on

⁸ This assumes that total spending on teacher pay is approximately £27–28 billion in 2021–22, or about 53% of the total schools budget of £52 billion in 2021–22 (the main schools budget plus £2 billion in sixth-form funding). The 53% figure is taken from the Department for Education's school costs model (<https://www.gov.uk/government/publications/schools-costs-technical-note>).

education, it is extremely likely that the recent squeeze on school spending represents the biggest since at least the 1950s and probably a lot earlier.

5.3 Further education and sixth forms

The government has identified improving further education and promoting higher skills as key priorities in advancing its levelling-up agenda and building a more productive economy. To support this objective, the government announced an additional £3.8 billion for further education and skills in the 2021 Spending Review (this represents additional planned annual day-to-day and capital spending in 2024–25 as compared with 2019–20). However, ongoing challenges mean that the further education sector is still likely to face significant resource pressures in the coming years.

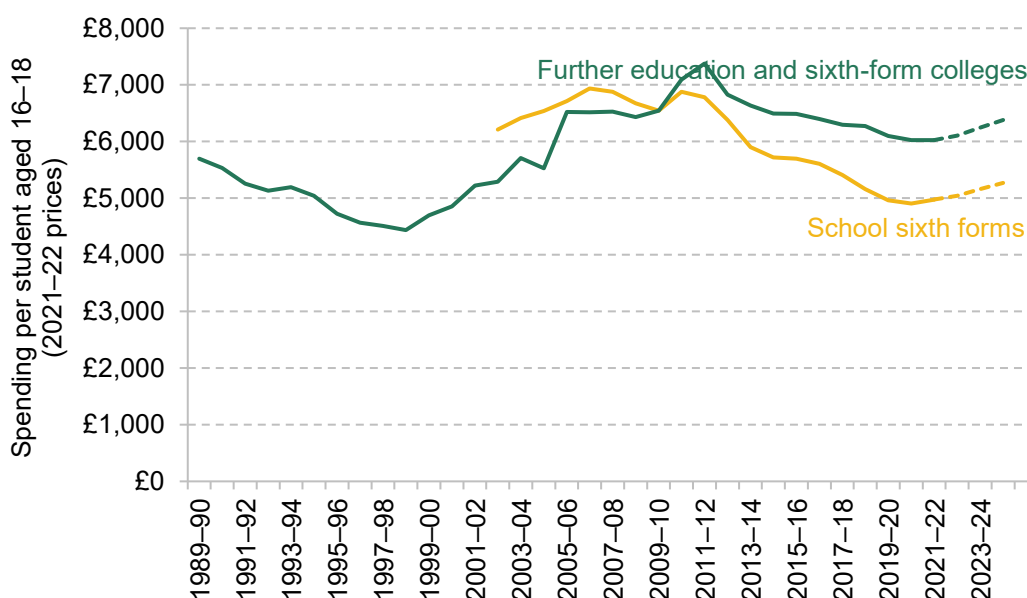
The majority of this additional funding – £2.3 billion between 2019–20 and 2024–25 – will be spent on 16- to 19-year-olds' education.⁹ A further £900 million will be spent on adult education and apprenticeships (see Section 5.4), with the final tranche of the £3.8 billion representing additional capital investment in colleges (about £500–600 million extra per year in 2024–25 compared with 2019–20).

While colleges and sixth forms will no doubt welcome this extra funding, the cuts in preceding years and rising student numbers mean that spending per pupil will remain well below 2010 levels. This is illustrated by Figure 5.3, which shows how per-pupil funding levels in further education and sixth-form colleges have evolved between 1989–90 (from 2002–03 for school sixth forms) and the present day, and how the additional funding will change spending levels up until 2024–25.

Total spending per student in 16–18 education is set to rise by 6% between 2021–22 and 2024–25. Yet even with this additional funding, college spending per pupil in 2024–25 will still be around 10% below 2010–11 levels, while school sixth-form spending per sixth-form pupil will be 23% below 2010–11 levels. Therefore, the additional funding for 16–18 education will only serve to partially reverse the cuts of the previous decade.

⁹ This includes £700 million already allocated in the 2019 and 2020 Spending Reviews for 2020–21 and 2021–22, plus an additional £1.6 billion allocated in the 2021 Spending Review.

Figure 5.3. Spending per student aged 16–18 in colleges and school sixth forms (actual and projected)



Source: Spending Review (HM Treasury, 2021); Sibieta and Tahir (2021); HM Treasury, GDP deflators, October 2021 (<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-october-2021-budget-and-spending-review>); Office for Budget Responsibility, *Economic and Fiscal Outlook*, October 2021 (<https://obr.uk/efo/economic-and-fiscal-outlook-october-2021/>).

On top of the resource challenges created by previous cuts and rising student numbers, colleges and sixth forms face a range of other challenges. These include rising student numbers (set to grow by 10% between 2021 and 2024) and catching up on lost learning during the pandemic. In addition, the ongoing reform of the post-16 qualification landscape and move to T levels are creating significant concerns within the sector. Earlier this summer, the government stated that it intends to remove funding for other technical qualifications that compete with T levels, such as BTECs, between 2023 and 2025.¹⁰ This has since been pushed back to a transition starting in 2024.¹¹ However, even this is a rapid transition given that T levels are still very new qualifications and about 18% of all 16- and 17-year-olds

¹⁰ <https://www.gov.uk/government/publications/reforms-to-post-16-qualifications-at-level-3-in-england>.

¹¹ <https://www.bbc.co.uk/news/uk-politics-59298862>.

currently take Applied General qualifications (mainly BTECs).¹² Some pupils also use BTECs as a way of progressing to higher education.

5.4 Adult education and skills

As well as increasing funding for 16–18 education, the government has repeatedly stated the need to improve adult skills provision. In the 2021 Spending Review, the government allocated a range of additional funding streams:

- An extra £550 million for adult education in 2024–25 as compared with 2019–20 (this comes from the commitment to a National Skills Fund of £2.5 billion over this parliament).
- £170 million in increased apprenticeship funding by 2024–25.
- £560 million for a new programme called ‘Multiply’ to improve numeracy skills across the UK. This is to be spread over three years and so will amount to about £190 million per year on average.

Together this amounts to about £900 million in extra day-to-day spending on adult education and apprenticeships in 2024–25 as compared with 2019–20. In addition to this future spending, it is worth noting that the government has indicated that it will shortly reform how learners access funding for post-16 education as part of the new Lifelong Loan Entitlement.

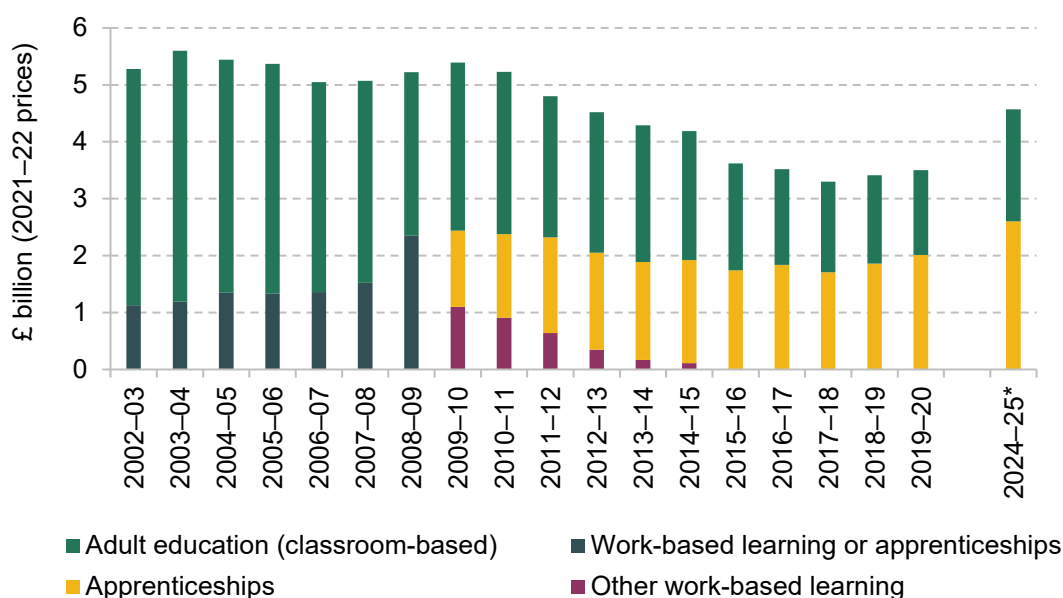
As with spending on 16–18 education, the context of these spending announcements is important. Figure 5.4 shows spending on adult education and apprenticeships since the early 2000s up until the present day, and the projected level of spending in 2024–25.

Spending on adult education and apprenticeships will rise by 30% between 2019–20 and 2024–25. However, as with spending on 16–18 education, this only reverses a fraction of past cuts; combined spending on adult education and apprenticeships will still be 15% below 2009–10 levels. Spending on adult education on its own (i.e. excluding growing levels of spending on apprenticeships) fell by 49% between

¹² <https://explore-education-statistics.service.gov.uk/find-statistics/participation-in-education-and-training-and-employment>.

2009–10 and 2019–20, and will still be 33% below 2009–10 levels even with the additional funding announced in the 2021 Spending Review.

Figure 5.4. Total spending on adult education and apprenticeships (actual, and projected for 2024–25)



* Projection.

Source: Spending Review (HM Treasury, 2021); Britton et al. (2020); HM Treasury, GDP deflators, October 2021 (<https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-october-2021-budget-and-spending-review>); Office for Budget Responsibility, *Economic and Fiscal Outlook*, October 2021 (<https://obr.uk/efo/economic-and-fiscal-outlook-october-2021/>).

While total spending may not reach the levels seen in the past, this does not necessarily mean it will be insufficient to deliver the government’s Lifetime Skills Guarantee. A variety of factors – some beyond the control of government – determine the success of skills policy. Yet one major issue that makes it difficult to gauge the potential impact of this spending package is the government’s repeated lack of clarity on skills policy and spending (Sibieta, Tahir and WalTMann, 2021).

One prominent example is the National Skills Fund. Following on from a manifesto commitment, the government has promoted the National Skills Fund as a £2.5 billion fund to support adults with training and gaining skills. The 2021 Spending Review allocated £550 million in 2024–25 as part of the National Skills Fund. Yet it is entirely unclear how money will be spread across years and whether

the fund has been exhausted. Similarly, there remain questions about the design of the forthcoming Lifelong Loan Entitlement. All of this continued uncertainty creates issues for providers of adult education and skills training.

Figure 5.4 does not include the new ‘Multiply’ programme as it not yet clear how this funding will be spread across years or the nations of the UK. Assuming it is spread equally across years and England receives funding of nearly £160 million based on its population share,¹³ this would represent a further 3% increase in funding for adult education in 2024–25. However, ‘Multiply’ is a curious programme for a number of reasons. First, it is a UK-wide programme, despite education being a devolved matter. Second, it represents a partial return to funding for basic skills, which was significantly reduced after 2010.

In summary, the 2021 Spending Review represents a significant change of direction for spending on 16–18 education and adult education. An additional £3.8 billion of spending means that there will be increases in resources for colleges, sixth forms and other further education providers. However, this must be set against previous cuts and, in the case of 16–18 education, rising student numbers, which means that additional spending only partially restores funding levels. Moreover, there are a number of pressing issues that further education providers must tackle in the coming years, including the impacts of the pandemic, qualification reforms and uncertainty about how skills policy will change.

5.5 Higher education

The 2021 Spending Review contained no new announcements at all on higher education. Nonetheless, reform is widely expected, and a number of potential changes to the student loans system have been rumoured in the last few weeks. According to one recent report (Leach, 2021), a government White Paper on higher education could be published as early as this month. In this section, we first give an overview of the general outlook for spending on higher education and then discuss the implications of different reform proposals for graduates, universities and the government finances.

¹³ England’s population represents about 84% of the overall UK population.

Outlook for spending

The outlook for government spending on higher education in the next few years is mixed. On the one hand, future cohorts are likely to pay back a larger share of their student loans, provided that graduates' earnings grow faster than loan sizes. This would reduce both the long-run cost of loans for the government measured by the 'RAB charge' and the initial 'write-off share' of loans that needs to be recognised as capital spending in the National Accounts.¹⁴ In addition, the large increase in science funding announced in the 2021 Autumn Budget will ease the pressure on research-intensive universities' finances, which could allow the government some room to dampen increases in teaching funding.

In pure accounting terms, an additional boost will also come from RPI reform¹⁵ – a decision by the government in November 2020 to adjust the methodology for calculating the Retail Prices Index (RPI) in 2030, from which point it will be calculated in the same way as the Consumer Prices Index including owner-occupiers' housing costs (CPIH). CPIH inflation is typically around 0.8% lower than RPI inflation calculated using the traditional methodology. This will lead to a 'real' reduction in the interest rate charged on student loans, as that interest rate is currently linked to RPI. But the effect that will dominate as far as the government finances are concerned is the 'accounting' change in how much repayments are valued: future student loan repayments will have a higher value in the calculation of both the RAB charge and the write-off share, so both measures of the cost of student loan issuance will fall. We estimate that RPI reform will reduce both the RAB charge and the write-off share for the 2021 cohort by around 4 percentage points; this will translate into a reduction in the long-run cost of loans calculated according to the Department for Education's methodology by around £700 million and in the initial accounting write-off of £600 million per cohort.

These large cost reductions as a result of a seemingly technical change that will in fact slightly *reduce* student loan repayments in cash terms may seem

¹⁴ For technical details on the treatment of student loans in the National Accounts, see Office for National Statistics (2020). A less technical introduction can be found at <https://ifs.org.uk/education-spending/higher-education>.

¹⁵ Our assumption here is that RPI reform will go ahead as announced. It should be noted that there is a chance that it may not, as there is an ongoing legal challenge to the move. For details, see <https://www.lexology.com/library/detail.aspx?g=15125360-7af3-4177-ac88-4c04134ddd3d>, for example.

counterintuitive. However, while these reductions in the accounting cost of loans do not represent real changes in the cost of loans, they will represent a welcome correction to student loan accounting. Measures of the cost of student loans that take into account RPI reform are preferable, because RPI calculated using the reformed method is a more accurate measure of inflation.¹⁶ While it might be argued that these accounting changes are immaterial for policymaking, because they do not reflect real changes to repayments, policy decisions regarding student loans do appear to have been driven by accounting considerations in the past (Johnson, 2018).

On the other hand, both university fees and maintenance support may rise faster than general inflation in the medium term. Many universities are likely to be hit by large costs arising from the deficits of defined benefit pension schemes for university staff (most notably the Universities Superannuation Scheme).¹⁷ These costs will add to the overall cost of teaching and thus are likely to require above-inflation increases in tuition fees eventually (tuition fees have been frozen in nominal terms since 2017 and will remain frozen until 2023 according to current plans).

On top of that, the number of English-domiciled students in receipt of loans is set to rise further, driven by a rise in the number of loan-eligible entrants. The Department for Education estimates that the number of England-domiciled loan-eligible entrants will rise from 379,000 in 2019–20 to 429,000 in 2025–26¹⁸ – an increase of more than 13%. The main reason for this is the projected growth in the 18-year-old population, which is set to increase by slightly less than 13% over the same period. Other factors likely to increase English-domiciled student numbers include the removal of funding eligibility for most EU-domiciled students (freeing

¹⁶ In fact, given persistently low real interest rates on government borrowing, both the RAB charge and the write-off share will arguably still overstate the true cost of student loans after RPI reform is fully reflected in student loan accounting measures.

¹⁷ These pension obligations were discussed in detail in last year's report, Britton et al. (2020).

¹⁸ <https://explore-education-statistics.service.gov.uk/find-statistics/student-loan-forecasts-for-england/2020-21>.

up providers' capacity)¹⁹ and, in the short term, record applications and admissions during the COVID-19 pandemic.

Potential reforms

These spending pressures – in addition to detailed criticism by the Lords Economic Affairs Committee and the Treasury Select Committee in 2018, as well as the Augar Review of post-18 education and funding in 2019 – mean that a reform of the student loan system is likely. Potential reforms include lowering the interest rate on student loans, which currently far exceeds the government's cost of borrowing; lowering the tuition fee cap; lowering the loan repayment threshold; and extending the loan repayment period. According to recent media reports (Riley-Smith, 2021), a cut to the loan repayment threshold may be imminent, with a cut to £22,000 apparently emerging as the favoured option.

The potential costs and effects of these reforms on the public finances are summarised in Table 5.1, with Figure 5.5 showing the effect on graduates with different levels of lifetime earnings. These calculations are all based on our new online student finance calculator, which can be used to examine the effect of changing different elements of the higher education finance system (<https://ifs.org.uk/student-finance-calculator>).

As shown in panel a of Figure 5.5, a **lower interest rate** would only benefit higher-earning graduates, with the highest earners benefiting the most (in cash terms). This is because lower earners typically would not completely repay their loans even with lower interest rates, so lower interest rates would not affect their lifetime repayments. A lower interest rate would also be expensive for the taxpayer. As shown in the first column of Table 5.1, lowering the interest rate to the rate of RPI inflation for all graduates would increase the RAB charge by 9 percentage points and add around £1.8 billion to the long-run cost of issuing student loans. (Somewhat counterintuitively, however, it would actually *lower* the write-off share by around 7 percentage points and thus lower the initial cost of student loans in the

¹⁹ Spending on EU-domiciled students will fall to nearly zero, as very few EU entrants are now eligible for funding (the main exception is Irish students). This will partially compensate for higher outlays as a result of higher domestic student numbers. However, it should be noted that EU students were generally ineligible for maintenance loans, reducing the likely cost saving.

government accounts, because student would pay off a higher share of their loans *with interest*.)

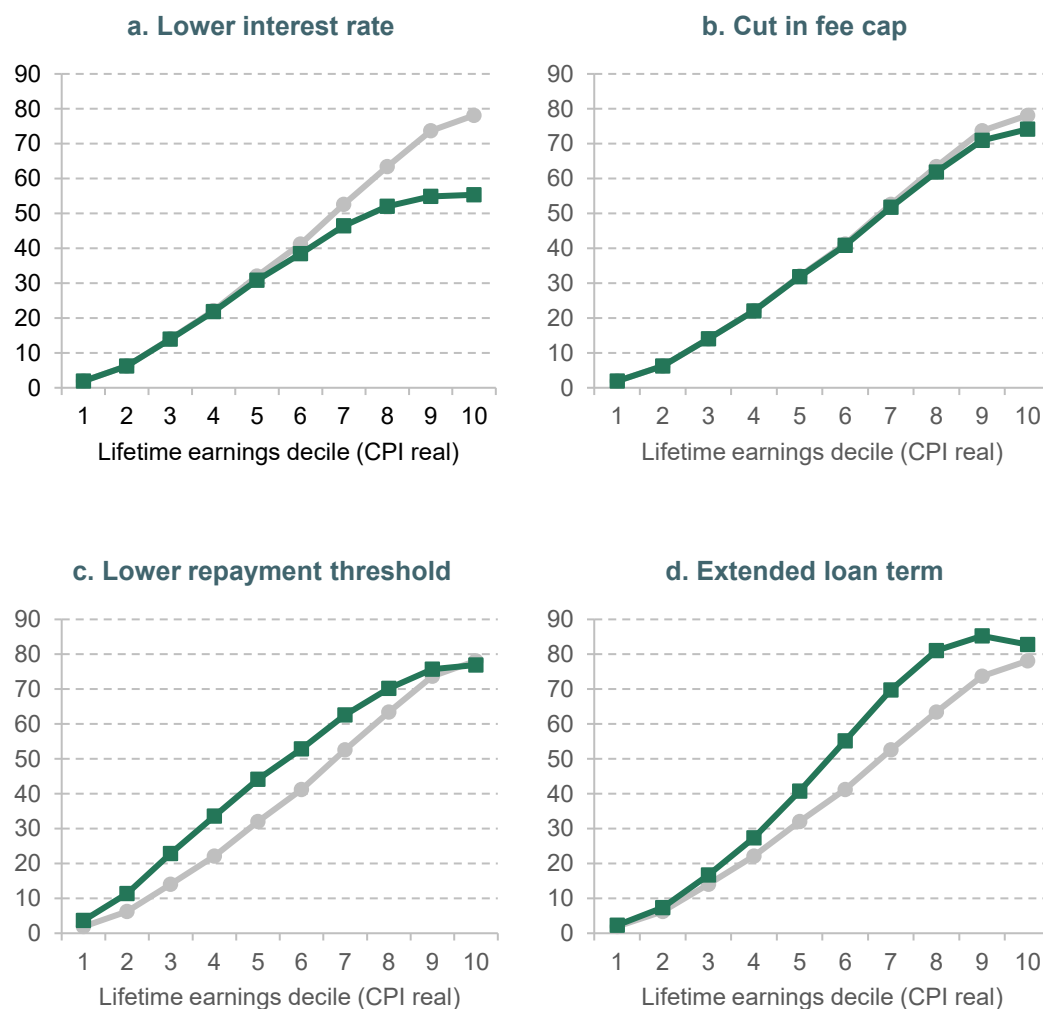
Table 5.1. Change in the cost of the student finance system as a result of different reforms

	Lower interest rate to RPI	Cut in fee cap to £8,500	Cut in repayment threshold to £22,000	Extension of repayment period to 40 years
Total outlay (baseline £21bn)	Nil	–£0.9bn / +£0.1bn	Nil	Nil
Loan outlay (baseline £19.5bn)	Nil	–£0.9bn	Nil	Nil
Total long-run cost (baseline £9.7bn)	+£1.8bn	–£0.6bn / +£0.4bn	–£2.1bn	–£2.1bn
Long-run cost of loans (baseline £8.2bn)	+£1.8bn	–£0.6bn	–£2.1bn	–£2.1bn
Cost of grants (baseline £1.5bn)	Nil	Nil / +£1bn	Nil	Nil
RAB charge (baseline 42%)	+9ppt	–1ppt	–11ppt	–11ppt
Write-off share (baseline 51%)	–7ppt	–1ppt	–11ppt	–8ppt

Note: Where two numbers are presented under ‘Cut in fees to £8,500’, they respectively refer to a reform without any compensation of universities for lost fee income and a reform where universities are fully compensated through increased teaching grants. All numbers relate to the 2021 entry cohort of undergraduate students. ‘Cut in repayment threshold to £22,000’ shows the effect of a cut in the repayment threshold only, with interest rate thresholds left unchanged.

Source: Authors’ calculations using IFS student finance calculator (<https://ifs.org.uk/student-finance-calculator>).

Figure 5.5. Average lifetime repayments in CPI real k£, by lifetime earnings decile: four reform options



Note: Grey lines with circles show the current system. All numbers relate to the 2021 entry cohort of undergraduate students. 'Lower repayment threshold' shows the effect of a cut in the repayment threshold only, with interest rate thresholds left unchanged.

Source: Authors' calculations using IFS student finance calculator (<https://ifs.org.uk/student-finance-calculator>).

Nevertheless, there is a strong case for lower interest rates. At the moment, students whose families can afford to pay the fees up front, and who are confident they will earn enough to pay back the loan, are worse off using the loan system. This erodes trust in the system. Furthermore, high interest rates may in fact be less progressive than student loan models (including our own) would suggest. This is because these models tend to assume that students repay their loans according to a fixed schedule

that is unaffected by the interest rate; in fact, high interest rates may encourage some of the highest-earning graduates to repay their loans early, lowering interest accrued and thus total repayments.

A **lower tuition fee cap** at £8,500 would similarly only benefit the highest earners (panel b of Figure 5.5): most graduates would not pay off their loans even with somewhat lower fees, so their lifetime repayments would be unaffected. The impact on the government finances would depend on whether teaching grants were increased at the same time to fully compensate universities for the loss in fee income, as envisioned by the Augar Review (2019, chapter 3, section 5). If not, total government outlay on student loans per cohort would fall by around £900 million, which in the long run would lead to a total government saving of around £600 million. If universities were fully compensated through higher teaching grants, total outlay would increase by around £100 million (as a small share of eligible students do not take up student loans), and long-run spending would increase by around £400 million (as a £600 million saving on student loans would be more than counterbalanced by a £1 billion increase in spending on teaching grants).

If teaching grants were raised by the same amount as the cut in the tuition fee cap on average, but with greater differentiation by subject as envisioned by the Augar Review, a lower tuition fee cap could play an important role in rebalancing funding across different courses and thus aligning incentives for universities with government priorities. This could be worth the £400 million taxpayer cost, even though that extra spending would largely benefit the highest-earning graduates. In contrast, a cut in tuition fees without adjustments in teaching grants would be counterproductive; it would further squeeze universities' finances and likely increase their incentive to cut provision in high-cost subject areas.

A **lower repayment threshold** of £22,000 or a **longer repayment period** of 40 years would essentially be a tax rise for the nearly 80% of graduates expected not to clear their loans. Both proposals would roughly reduce the taxpayer cost of student loans by £2 billion (see Table 5.1).²⁰ Both would largely hit graduates with middle

²⁰ One detail that influences the effect of a lower repayment threshold is whether the interest rate thresholds would be moved at the same time (at present, the lower interest rate threshold is the same as the repayment threshold). As shown in Table 5.1, changing only the repayment threshold leads to a long-run saving of £2.1 billion. If the interest rate thresholds were both lowered by the same amount, the long-run saving would be £2.4 billion.

earnings, with higher-income groups hit somewhat more by the extension of the loan term (panels c and d of Figure 5.5). This is because lower-earning graduates will usually not have substantial earnings above the repayment threshold, whereas the highest-earning graduates will typically pay off their loans either way.

A disadvantage of a lower repayment threshold compared with a longer repayment period is that it would raise repayments early in graduates' careers when many will be starting a family or saving for a deposit on a house. This would be a substantial share of income for middle-earning graduates: for instance, with a repayment threshold of £22,000, a graduate earning £28,000 would repay around £500 more per year. In more abstract terms, graduates at this stage in their lives are likely to be credit-constrained, whereas the government is able to borrow at very low interest rates; forcing graduates to repay more in their early careers therefore seems unlikely to be efficient. However, a potential disadvantage of shifting repayments to later in graduates' careers through a longer repayment period is that older workers might be more likely to cut their hours or drop out of the labour force to avoid student loan repayments, leading to other efficiency losses. Neither proposal would improve the system in a fundamental way.

Among the proposals on the table, only a lower interest rate and a lower tuition fee cap (with compensation for universities through more differentiated teaching grants) would deliver clear improvements to the system. These proposals have two features in common: considered in isolation, they would be costly for the government and they would make the system less progressive, in the sense that higher-earning graduates would pay less for going to university. Both effects could in principle be compensated by raising taxes on high earners.

6. Conclusion

Following large increases in education spending during the 2000s, there have been cuts to spending per student over the last decade in England. These will partly be reversed over the next few years as a result of planned increases in education spending, as set out in the 2021 Spending Review.

School spending per pupil in 2024 is due to return to approximately the same level it was in 2010, but this will still represent almost a decade-and-a-half with no overall growth in school spending per pupil. Planned levels of college spending per student aged 16–18 in 2024 will still be over 10% lower than 2010 levels. The overall squeeze on education spending since 2010 is effectively without precedent in post-war UK history.

There is also a sharp contrast in trends for health and education spending over time. Whilst health and education spending both represented close to 4.5% of national income in the early 1990s, health spending increased to above 7% just before the pandemic and education spending remains at similar levels to those in the early 1990s. This partly reflects the effects of an ageing society on health spending needs, but also the spending and policy choices by successive governments.

Looking more broadly, a number of common themes emerge over different stages of education, as well as some that are specific to each stage of education.

First, differential spending trends across areas and pupils have made it more difficult to level up poorer areas of the country. In the case of schools, recent cuts to spending per pupil have been larger for schools in more deprived areas and the Pupil Premium has failed to keep pace with inflation since 2015. Spending cuts have been larger for colleges and sixth forms serving 16- to 18-year olds, with lower levels of funding focused on disadvantage than is the case for schools. Such challenges will be even larger if, as evidence suggests, educational inequalities have widened over the course of the pandemic

The core funding rate for early years is due to increase next year, following a gradual erosion of its real value since 2017. However, the relatively modest

increase next year will quickly be eaten up by pressures from higher wages and higher payroll taxes as well as high rates of inflation. We also see a partial return to wider early years programmes, such as parenting programmes and Family Hubs, which seem very similar to the previous Sure Start programme. A gradual return to older approaches actually seems to be a second common theme, with a partial return to basic skills programmes in adult education too.

In contrast to other areas of education spending, resources per student in higher education initially grew in the period after 2010. However, this was only made possible due to a large increase in tuition fees in 2012, which will partly be paid for by graduates later in their working lives. Since 2012, inflation has gradually eroded the real value of spending per student. There have also been a multitude of changes to the student finance and repayment system, often driven by the slightly odd ways in which higher education spending has been treated in the public finances. However, there was surprisingly little mention of higher education funding in the Spending Review. A number of changes aimed at saving money have been rumoured, such as reducing the earnings threshold at which graduates begin repaying their loans, but this is still to be confirmed.

Looking more broadly over the long run, there have been large changes in the age profile of education spending per student. Back in the early 1990s, spending per student in higher education was three to four times the level of spending per student in primary schools; it was over twice as high in further education colleges as in primary schools and about 55–60% higher in secondary schools than in primary schools. There was little spending on the early years at that time.

Fast forward to the present day and there is now a much greater number of students in further and higher education. Differences in spending per student across ages are much smaller now. Relative to primary schools, spending per student is about 60% greater in higher education, only about 3% higher in further education colleges and 14% higher in secondary schools. There is now an entitlement to early years education and childcare, which has been expanded over time and now represents just over 70% of the level of spending per pupil in primary schools. This pattern of spending by age is more in line with evidence that emphasises the high effectiveness of investments in education early on in children's lives. However, such evidence also emphasises the importance of sustained investment at later stages of education too. The big question for the next few years is whether the level

and distribution of education are commensurate with ambitious policy goals around levelling up poorer areas of the country and improving productivity.

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